

LANDSCAPE ISSUES

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A WALK IN THE PARK ... AND BEYOND

There has been a long association of Pittville Park with the landscape architecture course in Cheltenham. The course was originally established in the Pump Room studios overlooking the park and was later moved to the Art College (now Pittville campus) just a few hundred metres east of the Pump Room. Currently housed in Francis Close Hall (FCH) campus, the course views the park from the St Paul's ward immediately to the south. Many students past and present will fondly remember strolling through the magnificent landscaped gardens of the grade 2 listed park, on their way to morning classes, perhaps lingering under a sizeable *Quercus ilex* making notes or attempting a sketch. To the west of the Evesham Road, the park is more natural in its layout with many small areas of woodland and large expanses of open ground now seeded with wildflower meadows drifting across Tommy Taylor's Lane and generally evoking positive reactions from the many park users.

When I come to work, I usually park my car in Hardwick campus and walk from there to FCH. Sadly, Pittville Park is not on my route and consequently I fail to get my 'green' fix, with no opportunity to experience the power of nature and raise my spirits before the day's work. The route I take along St Paul's Road is not the most picturesque or salubrious of itineraries, passing as it does lots of litter and dog waste, difficult road crossing points and hardly an abundance of ornate landscapes. Yet it is an interesting walk and I observe many features as I go: the ongoing building developments opposite the hospital site, the way the pigeons have managed to penetrate under the bridge despite the netting, the butterflies in late autumn fluttering on the old railway embankment by the corner to Tommy Taylor's Lane. And it's quite a populated route – mothers taking their children to school, students turning up for classes and last-minute shoppers using the open-all-hours shop on the corner opposite FCH. Most of you will have or have had similar walking experiences here or elsewhere. The trouble is that not many people walk these days. We like our cars too much. Many parents drop children off at school by car. We do the weekly shop at Tesco's by car. When we do walk, it's often a quick march between A and B, keeping an eye on or listening out for fast cars where the footpaths are narrow; and we tend to ignore the interesting features along the way.

Perhaps I should park on the other side of Pittville Park and walk through a much more pleasant environment. It was in the 1960s that Geoffrey Jellicoe, former president of the Institute of Landscape Architects, designed part of the Pittville Park, just north of the main built-up area of the St Paul's ward. He took as his inspiration the classical world's notion that the well-rounded person is both an artist and an athlete (Jellicoe: *Studies in Landscape Architecture*, vol 3, 1970), which he saw as the product of an education in fine art and sport in the local colleges (now the university). His underlying

purpose was to recognise the negative health impacts of urban living, to use sport and green space to facilitate recovery from mental fatigue and encourage more active use and exercise, to improve town-dwellers' well-being and quality of life. He didn't actually talk about walking but then, in the 1960s, cars and their pollution were not perceived as a nuisance.

So, does St Paul's today suffer from this extreme polarisation of landscape walking experiences? Visiting the park, one sees a substantial number of users: joggers, people exercising their dogs, cyclists, mothers with buggies, children playing pitch and putt; all enjoying the experiences and in a safe place. South of this park, however, the St Paul's ward has very little in the way of green open space, cars are parked tightly outside the properties leaving little room for children to play or feel secure. Cars, lorries and vans speed along both Tommy Taylor's Lane and St Paul's Road making pedestrian crossing difficult and dangerous. Many streets have little in the way of public open space. Front gardens are rare. At night, there's the worry of inadequate surveillance – is the lighting sufficient? Does one feel comfortable walking alone? What crimes are common here? Anti-social behaviour, theft, car crime, drug abuse have been recently recorded.

The St Paul's Residents' Association (SPRA) is keen to see their area as a desirable place to live in and visit. They have over the years been responsible for some successful interventions to regenerate the area, most notably the regular street-litter pickings, the implementation of a parking permit zone and the edible garden in FCH. Now they are turning their attention to improving the pedestrian mobility or 'walkability' of the area as there are many positives to be achieved: Jellicoe in his day recognised the health benefits from more physical activity; today the threat is the increasing prevalence of type 2 diabetes and concomitant obesity – regular exercise such as walking is recommended; research has shown that walking also aids psychological health and promotes more social interaction: a fulfilling experience for many people.

Collaborating with the Residents' Association, who gave us the initial impetus and motivation, we chose to use the Community and Landscape final year module as a vehicle to investigate the walkability of the local ward. This involved walking all the streets and open spaces, observing and taking notes. Initially this was unstructured in the style of a *dérive*: a process of exploration and serendipity. With a basic knowledge of the geography, character and street landscape of St Paul's, we devised a more thoughtful and structured means of collecting first-hand information: targeted street audits (three main student groups) and footfall and cycling censuses at key intersections. In addition, meetings were held with local residents and a visit to Dunalley Primary School was arranged, when students quizzed the pupils on their walking habits and environmental perceptions. An inspiring talk was also given by Bronwen Thornton of Walk21, the international organisation which encourages walking in urban areas for the benefits to health, the environment and the economy.

The initial phase of the student project concluded with a group poster presentation of findings which highlighted the general poor quality of that environment: the uneven paving, the large quantities of litter, the volume and noise of motor traffic and the lack of seating and lighting which all discouraged pedestrian activity. The final phase consisted of individual student submissions each developing innovative ideas from one or more of the previously-identified issues and variously looked at improving traffic management, the creation of better quality spaces possibly involving street art and sculpture, the enhancement of the 'legibility' of routes and character areas, the provision of better facilities for the disabled and the general 'greening' of the environment: more trees and garden improvement; overall to create a sense of identity for St Paul's.

All this seems very timely as in the past year there have been a number of studies published and campaigns launched, all concerned with promoting a healthier lifestyle through better diet and, in particular, encouraging us the public to exercise more. In March 2016, the Walking and Cycling Investment Strategy appeared, part of the government Infrastructure Act, aimed at cutting congestion and improving health and air quality, reducing the number of cyclist deaths on roads and reversing the decline in walking in recent years. The Public Health England campaign called One You urges middle-aged people to take more exercise, not necessarily by joining a gym but by uploading their walking activities to track and compare their progress on a phone app, data from which will be used to reveal general behavioural change, hopefully, since it is widely quoted that 40% of deaths in England are related to poor lifestyle: smoking, excessive drinking and being sedentary.

Dr William Bird, GP and founder of Intelligent Health and Beat the Street Global Walking Programme, has long 'prescribed' gentle exercise done at a time and a rate to suit the individual. These 'green prescriptions' are also shown to be more effective than drugs. Being out and about in the open air, patients experience less tension, stress and depression, lower blood pressure, improved immune system responses, lower levels of obesity and milder Attention Deficit Hyperactivity Disorder (ADHD). Radio and TV programmes acclaim outdoor walking of any kind, both rural and urban: Clare Balding's *Ramblings* and Julia Bradbury's *Best Walks* are the best current examples. Furthermore, in the academic field of landscape design research, the conference held in September 2015 at the Hanover Leibniz University (Let's Walk Urban Landscapes) demonstrated practically the importance of walking as a tool to be used in all stages of the design process. Experiencing the landscape involves movement, says Saskia de Wit, and there is no better way to experience it than by walking, not tracking on some online device.

The mention of digital technology leads me to conclude on two current and amusing stories, yet with some relevance to this editorial. There was an outcry a few months back when some children's dictionary omitted words

describing ‘natural’ features in favour of modern gadgets and computer terms. A group of authors were alarmed at A for *acorn*, B for *buttercup* and C for *conker* being replaced by *attachment*, *blog* and *chatroom*. This, they claimed, was associated with the increasingly interior, solitary childhoods of today. Even outdoors, it is common to witness pedestrians, both young and old, constantly texting, scrolling and checking their mobile phones and devices seemingly oblivious to the environment around them. A six-metre statue by Sophie Ryder outside Salisbury Cathedral was reportedly moved because these texting ‘smombies’ (smartphone zombies) kept bumping their heads on it! Some towns have painted lines on pavements to designate walking, cycling and texting lanes and even warning lights have been embedded in kerbstones to warn of impending tram danger (in Augsburg, Germany). Are we wedded to too many digital distractions, often needing to be ‘elsewhere’ (ie online)? Are we really bored too easily with our immediate environment? This is what John Stilgoe in *What is landscape?* says: Most people stare at their screens ... they do not explore, do not see, do not recall, do not walk ... and see and realise.

In the field of landscape architecture, it is vital we connect with the world. The real, not a virtual world. Go outside. Walk. Live in the moment. Put down your camera and smartphone, take off your headphones and, as Simon Calder succinctly puts it, let your senses download the surroundings.

Robert Moore



THE ANTHROPOMORPHIC LANDSCAPE

Michael Bedore

Anthropomorphism is when humans extend and attribute humanness to non-human agents. The anthropomorphic landscape is a type of landscape that promotes and encourages people to anthropomorphise with their surroundings. To date, no framework exists to establish this landscape. The criteria of this landscape are developed based on the motivational determinants of anthropomorphism, initially theorised by Epley et al. (2007), and further stimuli that result in one to anthropomorphise. The criteria are established based on notions of morphological similarity, sociality and effectance motivation, and the concept of warmth. The desire for the creation of such a landscape is based on the benefits that are associated with exposure to the anthropomorphic landscape. These include wellbeing, empathy for the environment and people, thus establishing their moral worth, as well as the suppression of dehumanisation.

Bang, bang, bang – spoon contacting my soft pine table. My one year old nephew, with an unsatisfied appetite, points to the newly formed marks on the wood and says ‘ouch.’ His mother replies ‘Oh no, don’t hurt the table...’ Does a table feel pain, or can it be hurt and scarred like a person? Humans, old and young, seem to be programmed to anthropomorphise our environment to establish and communicate understanding. Anthropomorphism is when we attribute human qualities to non-human agents, such as tables, animals, plants, and any other material or living specimen. This can involve the attribution of both physical features and mental capacities that are believed to be uniquely human onto the non-human counterpart (Waytz, Epley, & Cacioppo, 2010). This process is not a new mentalisation strategy to gain insight into the non-human, as anthropomorphism stems back 40,000 years where interchangeable form between animals and humans are discovered in Palaeolithic art (Mithen, 1996, cited in Horowitz & Bekoff, 2007).

The inherent process of anthropomorphising can be unintentional and implicit (Latiranta & Kimppa, 2006), therefore operating on a subconscious level. Our knowledge about other agents is always implicitly anthropomorphic and sometimes this anthropomorphic thought becomes explicit (Chandler, 2010). It normally operates at a level that does not stream into our conscious awareness, complicating its ability to be recognised. There is no surprise then that Freud endeavoured to examine this area in relation to psychoanalysis, stating that ‘it is not at all necessary to outgrow it [anthropomorphism]. Our understanding reaches as far as our anthropomorphism’ (Nunberg & Federn, 1962, cited in Grossman & Simon, 1969, p.78). There is an appreciation that anthropomorphism is required to gain knowledge. It requires a reflection of the self and of humans in general for it to persist: it is how one can project human qualities onto non-human entities to increase understanding. For some, however, the self and human-

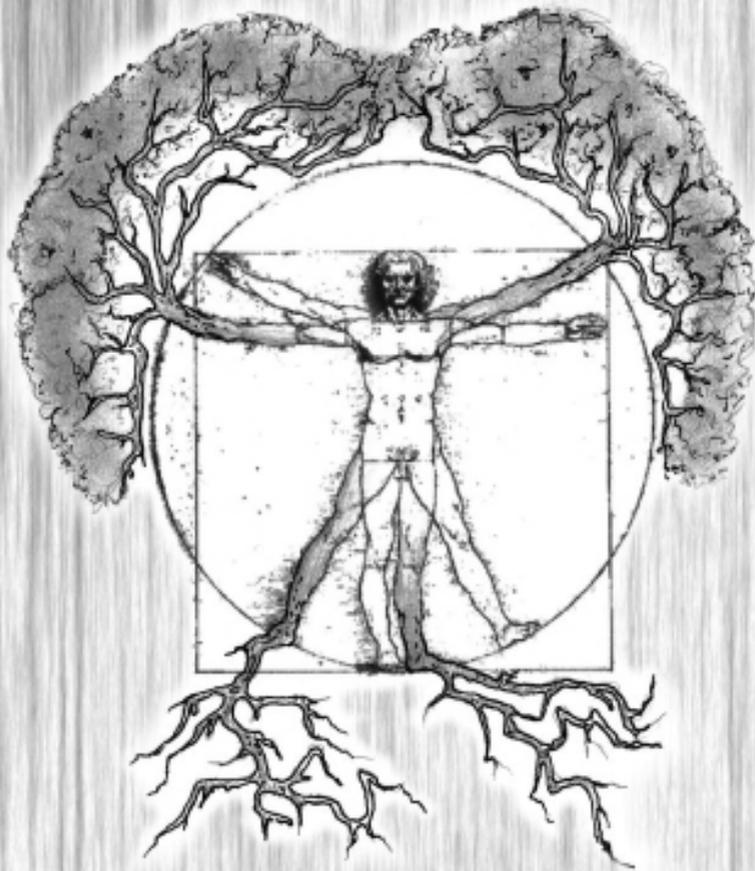
centric indulgence of anthropomorphism renders us winto ‘... a kind of species narcissism, an obsessive love of self’ (Tyler, 2003, p. 278). Perhaps, this egocentrism is a part of being human and a means to understand non-human agents. It is difficult to truly comprehend the non-human when we only have a human mind to utilise. Anthropomorphism is a valuable tool in this respect, and although it appears to possess selfish intent – pushing ourselves onto everything – it has the ability to create positivity for people and the environment by instilling moral worth.

The goal of this paper is to formulate criteria and a framework to establish the anthropomorphic landscape – a specific environment that stimulates anthropomorphism, encouraging humans to see themselves in the landscape. The criteria are based on research surrounding the topic of anthropomorphism. Firstly, the anthropomorphic landscape will be established through the examination of the motivational determinants and stimuli that induce people to anthropomorphise. Next, the benefits will be explained in terms of its role on humanity and the environment. Ultimately, the anthropomorphic landscape, through its stimulation of empathy and suppression of dehumanisation, will be demonstrated to benefit both people and the environment.

The anthropomorphic landscape: an environment that strongly desires and promotes its human inhabitants to anthropomorphise with their surroundings. Its creation is based on the motivational determinants of anthropomorphism and the stimuli that encourage one to enter into a state of anthropomorphic mentalisation. The criteria, based on this type of stimulus, will be examined to formulate the framework of the anthropomorphic landscape.

Criteria of the Anthropomorphic Landscape

Morphological similarity. The extent to which observable features of a non-human agent appear humanlike describe morphological similarity. ‘The more similar in appearance, the more people are likely to use themselves as a source of induction and anthropomorphise these non-human agents’ (Epley, Waytz, & Cacioppo, 2007, p. 869). If a non-human agent projects human form and characteristics it will more readily produce an anthropomorphic reaction. For this reason, change, ageing and death – natural features of a human – are crucial elements to establish morphological similarity between human and non-human agents. The anthropomorphic space must be composed of an abundance of plants and trees, and attraction of any other life forms. The landscape must possess a strong quality with respect to the natural life cycle. The same principle holds for materials. ‘Natural materials express their age and history...’ by illustrating wear that further establishes a dimension of time (Pallasmaa, 2005, p. 31). The anthropomorphic landscape requires the prominent use of natural materials, whose organic composition denotes growth and decay, to



help illustrate morphological similarity to the maturing human. Utilising ‘the colour and textural metamorphosis of metal when it tarnishes and rusts’ (Koren, 1997, 57) provides an example of a material that changes and ages, and therefore, a material with morphological similarity to humans.

Not only does emphasis need to be placed on natural materials, they must be encouraged (not prevented) to mature. In essence, the anthropomorphic landscape should closely follow the aesthetic principles of *wabi-sabi*: ‘...a beauty of things imperfect, impermanent, and incomplete’ (Koren, 1994, p. 7). Both anthropomorphic landscapes and *wabi-sabi* share the commonality of projecting a human-nature relationship that expresses their morphological similarity:

Acceptance of the inevitable. *Wabi-sabi* is an aesthetic appreciation of the evanescence of life. The luxuriant tree of summer is now only withered branches under a winter sky. All that remains of a splendid mansion is a crumbled foundation overgrown by weeds and moss. *Wabi-sabi* images force us to contemplate our own mortality, and they evoke an existential loneliness and tender sadness. They also stir a bittersweet comfort, since we know all existence shares the same fate (Koren, 1994, p. 54).

The anthropomorphic landscape, through its expression of *wabi-sabi*, promotes recognition of the morphological similarity with the natural and non-permanent, and will induce a sense of loneliness and comfort. The perception of comfort will further help establish the anthropomorphic landscape’s criterion of warmth, discussed later in this paper. The induction of loneliness, may initially conjure negative connotation; however, it helps to further initiate anthropomorphism and distinguish one of its motivational determinants: sociality motivation.

Sociality motivation. This describes people’s need and desire for connection with other humans (Epley, Waytz, Akalis, & Cacioppo, 2008; Epley et al., 2007). Epley et al. (2007) proposed that sociality motivation was a motivational determinant of anthropomorphism, stating that it ‘increases the tendency to anthropomorphise non-human agents by increasing the tendency to actively search for sources of social connection in one’s environment’ (p. 875). It is our motivation to be socially connected that activates anthropomorphism, which then helps to establish a sense of connectivity by relating us to our surrounding environment or to non-human agents. This relationship between anthropomorphism and sociality motivation then leads to the consideration of loneliness and whether those lacking social connection would anthropomorphise more. It was discovered that people experiencing loneliness do rely on anthropomorphism to establish a sense of social connectivity (Epley, Akalis, Waytz, & Cacioppo, 2008; Epley, Waytz et al., 2008). Furthermore, even experimentally induced loneliness was discovered to increase anthropomorphism toward pets (Epley, Akalis et al., 2008). Therefore, induced or momentary loneliness, and not just chronic loneliness, can increase anthropomorphism.

The anthropomorphic landscape must stimulate sociality motivation – one’s desire to feel connected – to enhance anthropomorphic mentalisation. It must possess areas of momentarily isolation and loneliness to stimulate the need to seek connection via anthropomorphism. Creating pockets within the landscape is a means of instilling a disconnection from the masses. Smaller micro spaces within the macro environment can facilitate a sense of momentarily loneliness. These pockets need to provide a sense of intimacy, mimicking *wabi-sabi* places which tend to be compact, quiet, inward oriented, ‘enveloping and womb-like’ (Koren, 1994, p. 67). A womb-like space, utilising morphological similarity further reveals the connection between the anthropomorphic landscape and *wabi-sabi*. Furthermore, Koren (1994) explains how *wabi-sabi* encourages closeness, touch and relation while reducing the distance (psychic and physical) between people and things. These micro pockets (perhaps more suitably labelled wombs) will encourage this closeness and offer individuals the opportunity for self-reflection as they will be further removed from the over-stimulation of the social environment. In consideration that ‘[t]he cognitive determinant of anthropomorphism is ... the extent to which knowledge of humans (or the self in particular) is elicited or activated’ (Waytz, Epley, & Cacioppo, 2010, p. 59), opportunities for self reflection will only enhance anthropomorphic tendencies.

Warmth. As modernism is cool: sharp, seamless, polished, concrete, steel, and glass, *wabi-sabi* is warm: earthy, murky, soft, variegated, imperfect, darker and dim (Koren, 1994). The anthropomorphic landscape needs to share *wabi-sabi*’s warmth which can be expressed through natural materials’ colour palette and from the interplay of shadow and light. Pallasmaa (2005) reminds us that in great architectural space, there is a ‘...deep breathing of shadow and light; shadow inhales and illumination exhales light’ (p. 47). Interestingly, the use of anthropomorphic language (the human characteristic of breathing applied to light) has illuminated the benefits of interplay between light and dark. Light, through its persuasion to implicitly or explicitly conceptualise fire, and our reliance on light to see, can instil a sense of comfort, safety and warmth. Its warmth would prove especially beneficial if utilised within the wombs of the anthropomorphic landscape.

The notion of warmth is a stimulus to anthropomorphic thought. Horowitz and Bekoff (2007) explored the factors that increase humans’ anthropomorphic tendencies. They explain that ‘[o]ur drive to affection for a cuddly, purring cat, for instance, may be a biological side-effect of our innate drive to care for our (cuddly, cooing) young’ (p. 31). This innate drive can become a factor contributing to the likelihood of humans’ anthropomorphisation. For example, childlike features, such as large eyes, increase human anthropomorphism (Chandler, 2010; Horowitz & Bekoff, 2007) and perceptions of cuddliness, fur, fuzziness, and softness also predict greater anthropomorphic tendencies (Horowitz & Bekoff, 2007). Our attraction to warmth via softness, fur, or a cuddly young can be viewed

as an anthropomorphic stimulus. However, the terminology of warmth must also encompass the sensation of comfort, security, safety, and even benevolence, as these qualities also correspond with the soft, fuzzy, and cuddly non-human agent that humans can more easily connect with. If we consider dogs, a highly anthropomorphised, cuddly, furry pet and ‘...fitting subjects for a new examination of why we anthropomorphize’ (Horowitz and Bekoff, 2007, p. 25), they provide their owners with a warmth that unquestionably includes a sense of comfort, safety and kindness.

In terms of the anthropomorphic landscape, the quality of warmth must be present within the environment’s makeup. One needs to feel safe, comfortable, and secure. The landscape cannot be threatening; it must project a sensation of charitable warmth to its inhabitants like the fur of a beloved pet against the skin, or an infant cuddled within one’s arms. Aesthetically, a projection of warmth through colour, light, and planting softness, and spatially, a projection of safety and comfort, must be established to enable anthropomorphism to flourish. A non-threatened mind, influenced by warmth, will more willingly connect with the surrounding landscape through anthropomorphism.

The quality of warmth as an anthropomorphic stimulant can further be recognised by considering the act of dehumanisation. Dehumanisation is ‘... the inverse of anthropomorphism – treating other humans as [non-human] animals or objects...’ (Waytz, Morewedge, Epley, Monteleone, Gao, & Cacioppo, 2010, p. 411). The act of dehumanisation was again described as the inverse of anthropomorphism by Waytz, Epley & Cacioppo, 2010. Additionally, dehumanisation can be viewed as the inverse of anthropomorphism based on brain activation. Anthropomorphism was revealed to activate the medial prefrontal cortex (MPFC), especially when unpredictable stimuli were the source of anthropomorphic thought (Waytz, Morewedge et al., 2010). Inversely, there is reduced activation in the MPFC when people examine dehumanised targets compared to those non-dehumanised (Harris & Fiske, 2009). The MPFC and its activation and inactivation help to further reveal the inverse relationship between anthropomorphism and dehumanisation. In terms of warmth as described as one’s level of benevolence, Harris and Fiske (2009) highlight that dehumanised targets are rated lower in warmth and mentalised less as possessing any quality of warmth. The perception of a lack of warmth, therefore, helps establish the act of dehumanisation. In consideration of dehumanisation’s inverse, anthropomorphism, an increased perception of warmth should therefore help one to anthropomorphise. For this reason, the anthropomorphic landscape further values warmth to help fulfil its criteria.

Effectance motivation. In 1959, White acknowledged our innate desire to effectively interact and understand our environment. He labelled this drive to seek competence, control and increased predictability of the environment, with the term effectance motivation (as cited in Burger & Cooper, 1979; Epley

et al., 2007; Epley, Waytz et al., 2008; Lamont, 1983; Waytz, Morewedge et al., 2010). The notion of reducing uncertainty in the environment through effectance motivation and its link to anthropomorphism was first theorised by Epley et al. (2007). They believed that one would be motivated to interact effectively with non-human agents to increase understanding and decrease uncertainty about the environment. ‘This uncertainty may arise because the [non-human] agent is novel and unknown, ...appears unpredictable, ...violates one’s expectations, or because the causal mechanisms underlying an observed behavior are unknown or unobservable’ (Epley et al., 2007, p. 872). Anthropomorphism is considered a tool to help satisfy our effectance motivation (our drive and goal to master our surroundings), especially for things perceived as unknown, unpredictable, or unexpected. Anthropomorphising is a means of increasing our knowledge about the surrounding environment and, therefore, ‘[w]hen effectance motivation is high, anthropomorphism should increase. When effectance motivation is low, anthropomorphism should decrease’ (Epley et al., 2007, p. 872). In other words, the greater the desire to gain understanding of the environment, the more likely one will anthropomorphise one’s surroundings.

Furthermore, effectance motivation as a motivational determinant of anthropomorphism has been systematically tested. Epley, Waytz et al. (2008) utilised unpredictability to stimulate effectance motivation and examine its effect on anthropomorphism. Based on video observations, participants examined two non-human agents: an unpredictable and a predictable dog. The dog rated as unpredictable was rated higher on an anthropomorphism measure, compared to a predictable dog. This suggests that an unpredictable stimulus, one that initiates effectance motivation, also increases anthropomorphism. The study also found that those with a high desire for control, or high in effectance motivation (Burger & Cooper, 1979), anthropomorphise more than participants with a less desire for control. Epley, Waytz et al. (2008) provide significant results demonstrating that effectance motivation influences and increases anthropomorphism and suggest that our ‘...tendency to seek understanding and control [our effectance motivation] is facilitated by a stimulus that enables anthropomorphism’ (p. 151).

In 2010, Waytz and Morewedge et al. complement the previous findings revealing that factors that increase effectance motivation, such as unpredictable stimuli, also increase anthropomorphism. It was established that anthropomorphism satisfies people’s effectance motivation, and anthropomorphising even increases when motivations are higher to seek understanding about one’s surrounding. There is a strong link between the motivation to understand our environment and anthropomorphism. Anthropomorphism provides insight regarding our surroundings and non-human counterparts, whereas effectance motivation (our drive to understand) provides the fuel to continue to access our anthropomorphic thought.

The anthropomorphic landscape, therefore, requires the stimulation of effectance motivation in order to satisfy its goal: to induce anthropomorphic thought. In consideration that things unpredictable, unknown, and unexpected increase effectance motivation, which in turn stimulates anthropomorphism, the anthropomorphic landscape must possess a mysterious quality. The environment must encompass a sense of unpredictability, unexpectedness, and glorify the unknown, but must not violate the criterion of warmth by causing a sensation of threat. One's effectance motivation must be activated and the most difficult task is that it must remain activated. Within the anthropomorphic landscape, increased exposure via time and familiarity cannot have a detrimental effect on the productivity of effectance motivation. In terms of design, this will be the greatest challenge since spaces with infinite meaning and interpretation – a notion of mystery – will need to be created to stimulate, over and over again, our drive to understand. Planting complexities, a non-static changing environment and the collaboration with artists to formulate installations of endless meaning (perhaps that also help express morphological similarity) are some examples of where design could establish effectance motivation in the landscape. Establishing effectance motivation will undoubtedly challenge design, and in consideration of the benefits of the anthropomorphic landscape, the challenge should be taken seriously.

The Benefits of the Anthropomorphic Landscape

Wellbeing. The purpose and reason for wanting to create/design/build the anthropomorphic landscape still needs to be examined. Exposure to the anthropomorphic landscape provides multiple benefits, including wellbeing and therapeutic properties. Firstly, one can consider the wabi-sabi aesthetic that this landscape promotes: an aesthetic that depicts change, age and acceptance of the inevitable – our death. Death is a topic with varying perceptions, however: humans do fear death due to its unknown nature, leaving people behind, and unanswerable questions surrounding the topic (e.g. Bath, 2010; Yang & Cheng, 2009). The anthropomorphic landscape, by adhering to the criterion of morphological similarity, encourages anthropomorphism with non-human agents that also grow, age and die. The landscape helps to reinforce the natural cycle by encouraging humans to see themselves in finite entities. This can help establish therapeutic thoughts surrounding death – and again, quoting Koren (1994) – by creating '...a bittersweet comfort, since we know all existence shares the same fate' (p. 54). Furthermore, considering wellbeing is positively associated with natural features, such as species richness, birds, and vegetation cover (Luck, Davidson, Boxall, & Smallbone, 2010), the anthropomorphic landscape will increasingly deliver positive benefits since it requires such naturalness to adhere to its criterion of morphological similarity.

Anthropomorphism within the anthropomorphic landscape has the ability to satisfy one's desire to gain control and understanding of one's environment (effectance motivation) as well to help establish one's sense

of social connectivity. Waytz, Morewedge et al. (2010) discuss, while considering a wellbeing perspective, how loss of control in one's environment can lead to depression, anxiety and learned helplessness. They state that anthropomorphism (in this case within the anthropomorphic landscape) can help to counteract such consequences by instilling a sense of understanding and control. The anthropomorphic landscape's ability to increase a sense of social connectivity may also prove to enhance wellbeing to the individual lacking social support since '...encouraging anthropomorphism among socially disconnected individuals may have some surprising therapeutic benefits' (Epley, Akalis et al., 2008, p. 119). Those seeking control, understanding, closure, social connectivity due to loss, feelings of isolation or loneliness, and people with insecure/anxious attachment styles are all increasingly likely to anthropomorphise (Epley et al., 2007). The anthropomorphic landscape, an environment encouraging and simplifying the act of anthropomorphism, can help those in need of establishing a sense of control and connectivity, if even for a moment to help one gain composure and take a deep breath. In a society bombarded by demands, over-stimulation and stress, there are many (if not all of us at some point) who would benefit from the sensation of control and self-reflectance that the anthropomorphic landscape can induce. In terms of benefitting the self, the anthropomorphic landscape can establish a sense of wellbeing by instilling control, exposure to nature, and the acceptance of self as a finite/ageing being.

Empathy and the environment. The anthropomorphic landscape's benefits further stem from its production of empathy. Empathy is the ability to imagine how others feel, fear, hope, understand themselves and their circumstances, and '...is regarded as a crucial antidote to potentially serious harms and violations...' (Carse, 2005, p. 170). Empathy is the ability to project morality and care. 'Perhaps the most important implication of anthropomorphism is that perceiving an agent to be human renders it worthy of moral care and consideration' which '...not only leads people to represent it as humanlike but to treat it as humanlike as well' (Waytz, Apley & Cacioppo, 2010, p. 59). Anthropomorphism's ability to grant an entity with moral concern and regard is readily acknowledged (Epley et al., 2007; Waytz, Cacioppo & Epley, 2010; Waytz, Morewedge et al. 2010), and this moral concern can result in increased empathetic treatment of non-human agents (Waytz, Cacioppo & Epley, 2010).

Theodor Lipps, '...the father of the first scientific theory of *Einfühlung* ('feeling into', 'empathy') ... used the notion of *Einfühlung* to explain not only how people experience inanimate objects, but also how they understand the mental states of other people.' Additionally, Lipps' notion of empathy '... entails fusion between the observer and his or her object ... [an] unconscious process ... based on a 'natural instinct' and on 'inner imitation'.' (Montag, Gallinat & Heinz, 2008, p. 1261). Based on the first account of empathy (i.e. *Einfühlung*) and its link to not only people, but also non-human agents, it is not surprising that empathy is a product of anthropomorphism. Additionally,

considering the connection between empathy and anthropomorphism (and to further provide support establishing this connection), it makes sense that both have been demonstrated to share similar neural correlates. The medial prefrontal cortex (MPFC) is the brain region that is majorly responsible for empathetic processes (Harris & Fiske, 2009; Rameson, Morelli, & Lieberman, n.d.). People anthropomorphising have also been shown to elicit MPFC activation (Waytz, Morewedge et al., 2010). However, anthropomorphism does not always significantly activate the MPFC, but does greatly activate the superior temporal sulcus (Harris & Fiske, 2009; Harris & Fiske, 2008), which has also been strongly linked to empathy (Harris & Fiske, 2009; Rameson et al., n.d.). Overall, the importance is the recognition of this connection and that anthropomorphism stimulates empathy.

In this respect, the anthropomorphic landscape is an environment of empathetic thought. It will encourage people to empathise with their surroundings, which in this case is dominated by a natural aesthetic – plants, living organisms, and nature. Waytz, Cacioppo, & Epley (2010) realise the potential role of anthropomorphism for environmental concern. They acknowledge how the relationship between anthropomorphism and moral care may prove to be important in how people view the environment. Additionally, their research led to the realisation that empathy for nature increases one's concern for the environment and cultures that anthropomorphise nature better adhere to sustainable ecological practices. For this reason, it is not a surprise that the concept of empathy has been used as the main component to formulate a sustainable theory and framework in regard to the environment and economy (Guergachia, Ngenyamaa, Magnessa & Hakim, 2010).

Considering that people who display higher empathy are already more likely to have increased environmental concern and desire its protection (Berenguer, 2007), the anthropomorphic landscape, by helping people anthropomorphise with nature and thus empathise with nature, will therefore establish the environment worthy of moral care. Mass engagement within the anthropomorphic landscape would revolutionise modernity, and its environmentally detrimental practices would dissolve due to a shift in peoples' values – all initiated by empathy. In the end, the growth of pro-environmental values via empathy is the growth of a better future for humanity.

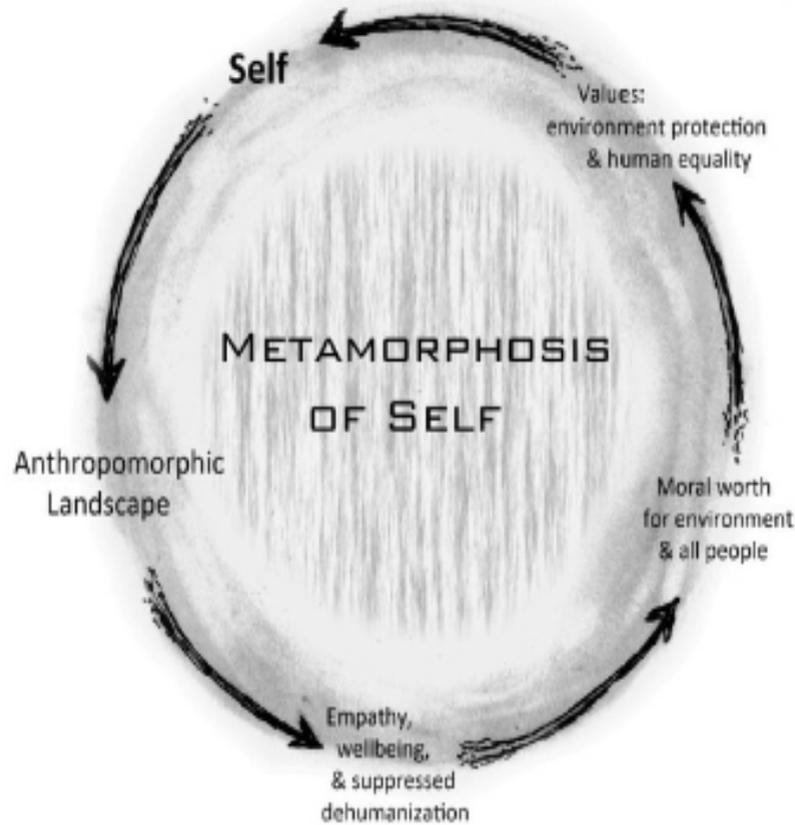
Suppressing dehumanisation. The anthropomorphic landscape not only benefits the environment by instilling in people its moral worth, it also encourages the positive treatment of people by preventing dehumanisation. Firstly, it may appear irrational to consider how the anthropomorphic landscape, an environment establishing anthropomorphism (i.e. human interaction with non-human agents) can impact human-human relationships. However, anthropomorphism does have a connection with human mentalisation. 'If people engage in a strong form of anthropomorphism

... then mentalising non-human agents should correspond to increased activation in a network of brain regions involved in mentalising other human agents' (Waytz, Morewedge et al., 2010, p. 415). In essence, '[h]ow people perceive non-human agents therefore utilizes the same mechanisms involved when people think about other people' (Epley, Waytz et al., 2008, p. 146).

Mentalising other humans, and even the self, corresponds to our social cognition (Harris & Fiske, 2009). Social cognition is strongly linked to the medial prefrontal cortex (MPFC), as well as the superior temporal sulcus (STS; Harris & Fiske, 2009; Harris & Fiske, 2008; Harris & Fiske, 2006). The MPFC and STS are both areas of the brain previously discussed as a determinant of anthropomorphism and empathy. Within the anthropomorphic landscape, where anthropomorphism and empathy are active (neurologically where the MPFC and STS are active), our social cognition (also MPFC and STS activation) would be flourishing. Therefore, the mentalisation of other humans is extremely likely within the anthropomorphic landscape, even more so because this landscape depends on human inference to enable anthropomorphism to even function.

Human mentalisation can result in people being dehumanised or humanised. Dehumanisation is '[t]he denial of full humanness to others...' (Haslam, 2006, p. 252), and '...the core of human evil...' central to rape, genocide, mass murder, and prejudice (Reimann & Zimbardo, 2011, p. 177). Contrastingly, humanisation is when one is granted moral worth (Waytz, Epley, & Cacioppo, 2010), perceived as human, believed to be equal, and deserving of respectful treatment and protection from harm (Oelofsen, 2009). Within the anthropomorphic landscape, it is believed to be impossible to partake in dehumanisation. Research strongly suggests that dehumanisation, in order to persist, requires a decreased or absence of activation of the medial prefrontal cortex (Harris & Fiske, 2006; Harris & Fiske, 2009; Reimann & Zimbardo, 2011). The anthropomorphic landscape stimulates anthropomorphism, empathy, self and human mentalisation, and ultimately our social cognition. Individually, all of these components increase MPFC activation, and therefore working together, this area of the brain will be highly engaged. This increased engagement of the MPFC will suppress and inhibit dehumanisation, providing a step toward harmonious relations between people.

Furthermore, '[e]mpathy is often proposed as a requirement for overcoming dehumanisation' (Haslam, 2006, p. 262), so the manifestation of empathy within the anthropomorphic landscape will help combat this atrocity. As well, '[t]he dehumanised person's character is ... seen as static, which is at the core of the dehumanisation process, as being able to change is central to being human' (Oelofsen, 2009, p. 180). The anthropomorphic landscape emphasises humans as non-static beings via anthropomorphising with non-human agents that change, age, and grow (satisfying the criterion of morphological similarity). Establishing humans as non-static, partnered



Metamorphosis of self. The anthropomorphic landscape's role in the development of the self. A cycle where increased revolutions, based on repeated exposure to the landscape, will continually strengthen and develop one's environmental and humanitarian values.

with empathy, should further help diffuse dehumanisation in the anthropomorphic landscape.

The anthropomorphic landscape also strives to satisfy people's motivation to be socially connected through anthropomorphism and to create sensations of loneliness to further invoke anthropomorphism. Therefore, the anthropomorphic landscape actually decreases social connectivity but still fulfils the need to feel connected through anthropomorphism. Being socially connected enables one to establish a strong connection to some, but provides a choice to maintain distance between others, and therefore, social connectivity can actually enable dehumanisation due to this distancing

between groups (Waytz & Epley, 2011). The aspect of the anthropomorphic landscape, which provides periodic absence from increased social connectivity, may prove to further eliminate dehumanisation. As well, stereotyping, a determinant of dehumanisation (Bastian, Laham, Wilson, Haslam & Koval, 2011; Oelofsen, 2009), may diminish due to the anthropomorphic landscape, since stereotyping is increasingly associated with social connectivity (Oelofsen, 2009). Oelofsen, additionally, explains how selective processing of information is a mechanism for dehumanisation, and this could very likely be due to over-socialisation/stimulation. The anthropomorphic landscape may provide a much needed periodic detachment from others, lessening social connectivity to decrease the urge of dehumanised behaviour.

A crucial way to eliminate dehumanisation is to establish its opposite: humanisation. The anthropomorphic landscape has a predisposition to stimulate humanisation due to its neural correlates. MPFC activation is an index of humanised perception along with empathic thought (Harris & Fiske, 2009), and these are both components of the anthropomorphic landscape. Interestingly, in one study, when participants viewed animals as similar to humans, (i.e. anthropomorphism), they perceived immigrants with greater humanisation as compared to when they viewed humans as animals, (i.e. dehumanisation; Kimberly & Gordon, 2010). Considering Kimberly and Gordon's results and how these results were also established with participants already high in prejudice, it highlights the potential link between anthropomorphism and humanisation. The anthropomorphic landscape may prove invaluable for the equal treatment of all people with its ability to encourage humanistic thought while suppressing dehumanisation – it will encourage a metamorphosis of self where values are developed and strengthened in favour of people, as well as the environment.

Conclusion

The notion of the anthropomorphic landscape has been established through the development of criteria based on motivational determinants of anthropomorphism, initially theorised by Epley et al. (2007) and further stimuli that result in one to anthropomorphise. A landscape that promotes anthropomorphic thought requires morphological similarity, the stimulation of sociality and effacement motivation, as well as the aspect of warmth. The intent of this paper was to establish a framework to conceptualise this landscape. Some elements of its design have been proposed (e.g. the womb, natural materials, and a wabi-sabi aesthetic); however, further investigation and creativity need to take place to provide design solutions and illustrative examples that adhere to the criteria. The driving force to do so, especially for landscape architecture, is its benefits. The anthropomorphic landscape promotes wellbeing, can stimulate environmental concern and the suppression of dehumanisation for better treatment of our human counterparts. Considering the macro scales that landscape architects work with, an anthropomorphic landscape of large proportion, with increased human exposure, can provide the greatest results. A landscape architect,

designing an anthropomorphic landscape, can help mould people's values and behaviours toward the salvation of our environment and humanity. A positive metamorphosis of society could take place from the decision of a landscape architect to implement the anthropomorphic landscape, ultimately unveiling its benefits to all.

Biographical Notes

Michael Bedore: artist, designer and environmentalist, was born and raised in Peterborough, Ontario, Canada. His interest in people and art led him to Trent University, obtaining a BA in psychology and cultural studies. During this time he and a friend created a landscape design/construction business. His realisation of landscape as art medium, and as powerful tool of connectivity, further developed his love of nature. Travelling to England to the beautiful Cotswolds, he was awarded his Masters in landscape architecture from the University of Gloucestershire. Thanks to all he encountered, his philosophies are now refined and he is committed to the design of wellbeing: 'we are the landscape.'

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SACRED AND THE CITY: 21 QUESTIONS SEEKING AN ANSWER

Paul Foley

The inferno of the living is not something that will be; if there is one, it is what is already here, the inferno where we live every day, that we form by being together. There are two ways to escape suffering it. The first is easy for many: accept the inferno and become such a part of it that you can no longer see it. The second is risky and demands constant vigilance and apprehension: seek and learn to recognize who and what, in the midst of inferno, are not inferno, then make them endure, give them space. (Italo Calvino, Invisible Cities)

In a previous paper entitled 'Sacred Place: a Personal Reflection' (Foley, 2015), I undertook an overall view of the transcendent in the landscape, working from the large scale, dramatic level down to the more intimate scale. Terminology proved to be somewhat problematic: what exactly do terms such as 'sacred', 'spiritual' and 'transcendent' mean? These notions, belonging as they do to a more intuitive and less empirical side of life, are difficult to define precisely. Indeed, the more one investigates these areas the more difficult it becomes to offer any sort of over-riding definition.

The original thrust of the paper was to assess the need for a sense of the sacred in an increasingly secularised world where organised religion in many western countries is on the wane, but there is still a counter-flow of desire to experience the transcendent. 'Fierce' landscapes on the grand scale were seen to be more conducive to engendering transcendence whereas more individual effort was required in smaller, more intimate spaces in order to achieve an equivalent sense of the ineffable. I used the term 'sacred place' as it implied a space that had been given value and meaning; however 'sacred space' has become such a standardised term in the literature, despite specific definition, that I have decided to revert to this usage.

My particular interest in this paper is to investigate sacred space in contemporary cities. More than half of the world's population now resides in urban areas, with 28 megacities each with a population of more than 10 million people (UN, 2014). The trend is on the increase. It is pertinent to ask how sacred space can be integrated into such cities, given the pressures of population and infrastructure.

What follows is a series of questions whose purpose is to tease out the notion of sacred space in the city. Rather than providing 'answers', I give a series of ruminations which may, or may not, provide answers but will certainly provide fuel for further thought. I am deliberately refraining from defining what I mean by sacred at this point. This gives us the space to approach the subject from a number of angles and examine both how the ineffable may be



Figure 1 Glastonbury Tor, Somerset



Figure 2 Memorial to the murdered Jews of Europe, Berlin

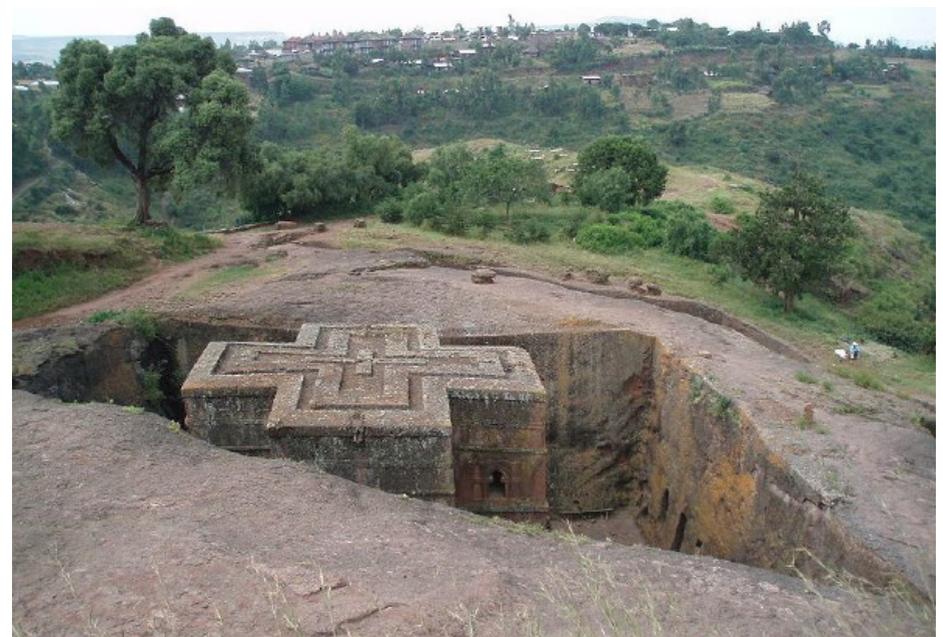


Figure 3 Ethiopian carved church

compatible with the modern city and also reach an understanding of what a sacred space may represent.

1 Is 'sacred' an appropriate word to use in the public realm?

Sacred is not a word that is used extensively in landscape architecture. The Landscape Institute may use the tag line 'Inspiring great places', the word inspire being derived from the notion of the divine breath, but sacred is not a word that is much employed in current discourse. This is understandable as the LI must frame policy in an evidence-based manner when dealing with matters of wellbeing and public health and, thus-far, our needs for spiritual transcendence is difficult to present empirically (Russell, 2015). One of the few books on the subject written from the perspective of landscape architecture is Rebecca Krinke's 'Contemporary Landscapes of Contemplation' (Krinke, 2005).

Architectural commentators are less shackled in their use of the word sacred. Modernism in architecture is seen as being founded on the notion of absolute rationality and a decisive break from qualities such as the sacred or the religious. As Paul Goldberger (2010) points out, modernism was never quite true to its claims. Le Corbusier spoke of 'ineffable space' and claimed to have invented the expression (Wogensky, 2006). Louis Kahn spoke of the 'immeasurable' (Sonntag, 2014). Mies van der Rohe famously said 'God is in the detail' (Brainyquote, undated). Goldberger (2010) points out the lack of a commonality of faith means that instead of the great sacred spaces of old, inspired by our sense of religion, art museums are now more effective emblems of our aspirations. Furthermore, Goldberger (2010) makes the point that no-one speaks of 'sacred structure'. Architecture is a logical, measurable science that ostensibly is to do with building walls and roofs. But when we speak of a great Gothic cathedral we refer to light and space, not structure. The feelings engendered by this space are difficult to describe scientifically: the sacred belongs to the realm of 'mythos' (see Foley, 2015, p. 26). However we use logic, in the form of the rational built structure, to get us to the ineffable. This appears paradoxical as the sacred seems to defy the essence of architecture.

We are on safe ground when speaking of churches, temples and mosques as belonging to the 'sacred' realm. Describing a non-denominational, public space as 'sacred' may get us into hot water. Sacred may be seen to be an exclusive term belonging to a particular social sub-group (Wolf, 2014). The modern western secular state, composed of peoples of many religions, and none, has to tread a careful path. Much has been written on the importance of restorative landscapes to our health and wellbeing (Moura, 2009). 'Well-being' is a term that stops short of 'spiritual' but, surely, part of a sense of well-being involves a connection with the transcendent aspect of life. In any event the National Health Service (NHS) now recommends mindful meditation practice (Hansson, 2013).



Figure 4 Le Corbusier's church at Ronchamp, France



Figure 5 Mies van der Rohe's Barcelona Pavilion

Julio Bermúdez, an architect with an interest in neuroscience, speaks of a ‘crisis of meaning’ in hypermodernity (Bermúdez, 2013). He believes it may be possible to bridge the enormous gulf between modernity and religion through science. Functional Magnetic Resonance Imaging (fMRI) of the brain provides an empirical demonstration of the feelings of transcendence experienced during meditation which are also replicated when participants are exposed to images of what he calls ‘extraordinary architectural experiences’, in other words experiences of sacred space. He sees this as an empirical, scientific method to address what he calls the ‘subjective phenomenology of sacred places’ (Bermúdez, undated).

2 Are certain spaces intrinsically ‘sacred’?

In my previous paper I looked at Mircea Eliade’s concept of *hierophany* whereby landscape is not homogeneous but composed of the sacred and the profane: the sacred is revealed to man and provides an anchorpoint termed the ‘axis mundi’ around which man may orient himself (Eliade, 1959). This correlates with what is often termed ‘thin’ places, landscapes which provide openings between two worlds (Sonntag, 2014).

It is open to debate as to whether the landscape works in this manner; nevertheless the Kaplans view that man is attracted to certain landscape archetypes (watered savanna) regardless of whether they hail from the Arctic or the Equatorial forest might imply that there is also an intrinsic attraction to certain places that provide for spiritual nourishment (Kaplan & Kaplan, 1989). This is a vast topic which cannot be covered in great depth in this article.

What does appear certain, however, is that man can decree certain spaces as being sacred. Churches and temples may have been built upon a sacred spring but continued use has sacralised the space although the original landscape may have disappeared. The church nestled in the centre of a megacity is testament to this as is the sacred tree in an Indian city, remnant of a vanished sacred grove (Gopal, 2014). These still hold some ghost of the original landscape. What, then, of spontaneously created sacred space?

Death often inspires people to designate a space sacred. The otherwise unremarkable Alma Tunnel in Paris, scene of Princess Diana’s death, has become a pilgrimage spot. Jim Morrison’s grave in the same city, although in the already sacralised Père Lachaise Cemetery has become ‘super-sacralised’, distinguished from the sacred space surrounding it and featuring what Sylvia Grider terms ‘an unmediated folk art assemblage’ (Grider, 2014). Roadside shrines to traffic accident victims represent a sacralisation of otherwise undifferentiated space. Grider (2014) calls this ‘an overriding sacred impulse to acknowledge the dead that transcends any particular denomination’. She also points out the attempts to outlaw such shrines in the USA on constitutional grounds reflecting continued nervousness on representations of the sacred in the public domain.



Figure 6 Diana Memorial, Pont de l’Alma, Paris

As Paul Goldberger points out, Ground Zero in New York ‘achieved the aura of the sacred for reasons more like a battlefield than for anything about its physical form’ (Goldberger, 2010). Inevitably a permanent memorial, a designated sacred space, has been created. But a more interesting phenomenon occurred in the days following the September 11th attacks: the photos of the missing in the National Guard Armory created a space of deep emotional significance. Grider (2014) notes the contrast between the happy people in the snapshots and the horrific events and the fact that although the sacred space was temporary it was not make-shift: photos were carefully placed. The flowers and artifacts that covered Kensington Gardens following Diana’s death mirrored this. What happens, subsequently, to these artifacts? Their removal may return the space to the mundane; their placement in a collection may result in their institutionalisation in a museum, bereft of context, a process recently termed ‘musealisation’ (Kattago, 2013).

Some spaces may become sacred where no particular attempt at sacralisation was intended. Mies van der Rohe may not have been quite the pure modernist he led many to believe but his famous Farnsworth House was designed as a holiday home. Yet, Goldberger (2010) says:

I can think of few more sublime places than the Farnsworth House, even though it is not by any normal measure a sacred space. But there, architecture is transcendent, as surely as in the chapels of Tadao Ando.

Its removal from its context would render it a beautiful sculpture but not a work of architecture, integrated with its site. Similarly Louis Kahn's Salk Institute, a scientific research facility in La Jolla, California, is world-renowned for its transcendent combination of concrete and teak with vistas towards the western horizon. Goldberger (2010) likens it to a cathedral and like other cherished, sacralised spaces emotions run high when any intervention is mooted.

An interesting phenomenon is the contrasting view of architectural pilgrims and religious pilgrims to a sacred space. Some come to worship God and some come to worship the building! The transcendent qualities of a space such as le Corbusier's church at Ronchamp may be lost on the religious congregation, the sacred for them being created through intent of purpose. Not so for the architectural pilgrims. Non-conformist thought sought to avoid any particular designation of the sacred: God was everywhere not just in specified space. Nevertheless the utter ordinariness and simplicity of a Quaker meeting house may, paradoxically, render it ineffable (Goldberger, 2010). Immigrant communities often create churches and mosques from shop-fronts or leftover space which seemingly lack any architectural sublimity. Ritual and intention render those unpromising spaces sacred to the congregation. Even the Walmart-style evangelical cathedrals can be transcendent when the intention is there.



Figure 7 Farnsworth House, Plano, Illinois



Figure 8 'Solitary man'

3 Can a café table in a crowded city constitute a sacred space?

W. B. Yeats certainly seemed to think so:

My fiftieth year had come and gone,
I sat, a solitary man,
In a crowded London shop,
An open book and empty cup
On the marble table-top.

While on the shop and street I gazed
My body of a sudden blazed;
And twenty minutes more or less
It seemed, so great my happiness,
That I was blessed and could bless. (from *Vacillation* in Yeats, 2015)

4 Is isolation a pre-condition for experiencing the sacred?

Yeats would seem to disagree; his poem extract appears to refer to a transcendent experience in the midst of a crowded tea-room. But the dynamic of a tea-room or coffee shop implies a psychological level of isolation. It is rare for us to be asked to share 'our' table. That table becomes our space. Having a solitary coffee whilst reading a book has the hallmark of a temporary removal from stressful hypermodernity. Yeats' 'gaze' implies a level of almost drowsy meditation leading to a sacred experience. In that moment we find ourselves amongst people, but not of them.

A park bench may have similar dynamics. We instinctively look for the empty bench, although not having paid for our 'space' we are less reluctant to share seating. Even then we will tend to gravitate to the further end to allow as much space as possible between ourselves and our fellow sitter.



Figure 9 Psychological space

Such is human nature. But the sense of personal space, of figuratively being removed from the mundane, remains.

Tuan (undated) points out that the sense of crowdedness is relative. Two 'poets of nature' finding themselves adjacent in a pristine wilderness may have a sense of being crowded out. Fifty thousand spectators at a sports fixture may not. Nevertheless, all may experience moments of transcendence.

'Aloneness' may constitute a better word in this context. A meditative, transcendental experience is highly unlikely to occur in the company of others, unless everyone is focused on the same goal, as happens in a Buddhist monastery. In our hypermodern world a state of aloneness is difficult to achieve, even in the absence of other people: smart phones and tablets keep us in crowded cyberspace, further complicating our relationship to the transcendent. Indeed such experiences may be seen as fearful or dangerous. Professor Mickey Fearn (2014) has related this to the lack of exposure to transcendental nature in economically deprived urban areas: 'they experience stillness and silence, reflection and meditation, not as vital to physical, emotional and spiritual health, but as boring'. There is, as he points out, a possibility of confusing 'sacred' with 'scared'.

5 Is a single tree sufficient to encounter the sacred?

Some years ago, when I lived in Paris as a student, I visited a friend who was hosting a visitor from Brazil. I asked the visitor what she liked most about Paris. 'La Défense', she replied, much to my surprise (La Défense is the business area of skyscrapers, reminiscent of downtown America). Puzzled, I asked her why. 'Because it reminds me of São Paulo. And because when I see a tree there in the middle of the concrete I really appreciate it'.



Figure 10 La Défense, Paris

Zen dry gardens employ a minimum of greenery. Barragán's Casa Gilardi's courtyard contains a single jacaranda tree. Kahn's Salk Institute plaza is bereft of planting. All are sacred spaces.

Perhaps, as that Brazilian lady from long ago realised, a simple focus is sufficient. Kahn's plaza has the transcendent sky which is as natural as vegetation. Such simplicity brings forth what Marc Treib calls an attitude of 'attending' (Krinke, 2005).

6 How does enclosure contribute to sacred space?

In my previous paper (Foley, 2015), I noted the effect of 'fierce' landscapes on our psyche and ability to experience the transcendent and that in smaller, more intimate spaces such experiences were more difficult to achieve. This is especially true in densely-populated, noisy and cramped urban areas. One architectural element that has long been employed to facilitate such transformation is the use of enclosed space.

Enclosed space ensures a sense of removal from the quotidian; it reduces the noise levels emanating from the city; it creates spaces that are less permeable, perhaps, but which must be sought out; it enhances feelings of security. Indeed enclosure is a metaphorical equivalent of the inward journey we undertake when contemplating or meditating.

Classical examples of enclosed contemplative spaces are often decidedly religious in character, such as Zen gardens, monastic cloisters and remnant churchyards located in the midst of skyscrapers. The dynamics of such

spaces are eminently suitable for inclusion in the fabric of modern cities. High-rise buildings often incorporate enclosed courtyards, of necessity, to allow for entry of natural light into the buildings. This has the potential for the creation of quiet, contemplative spaces, which are removed from the noise and chaos of the modern metropolis. A recent visit to the Temple area of London illustrated how courtyards become acoustic havens in the centre of a mega-city.

In contrast to the classic European urban layout of public plazas, Islamic architecture was inward-looking, creating enclosed gardens of delight where the sound of water could be appreciated with little disturbance (Belk & Sobh, 2012). Japan has also had a tradition of interior orientation in its architecture.

Luis Barragán's most transcendent spaces appear relatively unremarkable from outside. As Maria João Durão (2012) explains, his space 'develops inwards, underlining the sensation of inner being and encouraging meditation, as Barragán intended'. Barragán's gardens are austere places largely devoid of decoration or vegetation but enlivened and spiritualised by the vibrancy of coloured walls.

Louis Kahn's Salk Institute, although not entirely enclosed, shares the austere beauty of Barragán's spaces with a view to the far horizon. Correspondence between the two architects indicate that this was no coincidence. As Barragán wrote to Kahn:

I would not put a tree or blade of grass in this space. This should be a plaza of stone, not a garden. If you make this a plaza, you will gain a facade – a facade to the sky. (Arcspace, 2001)



Figure 11 Ryoan-ji, Kyoto, Japan

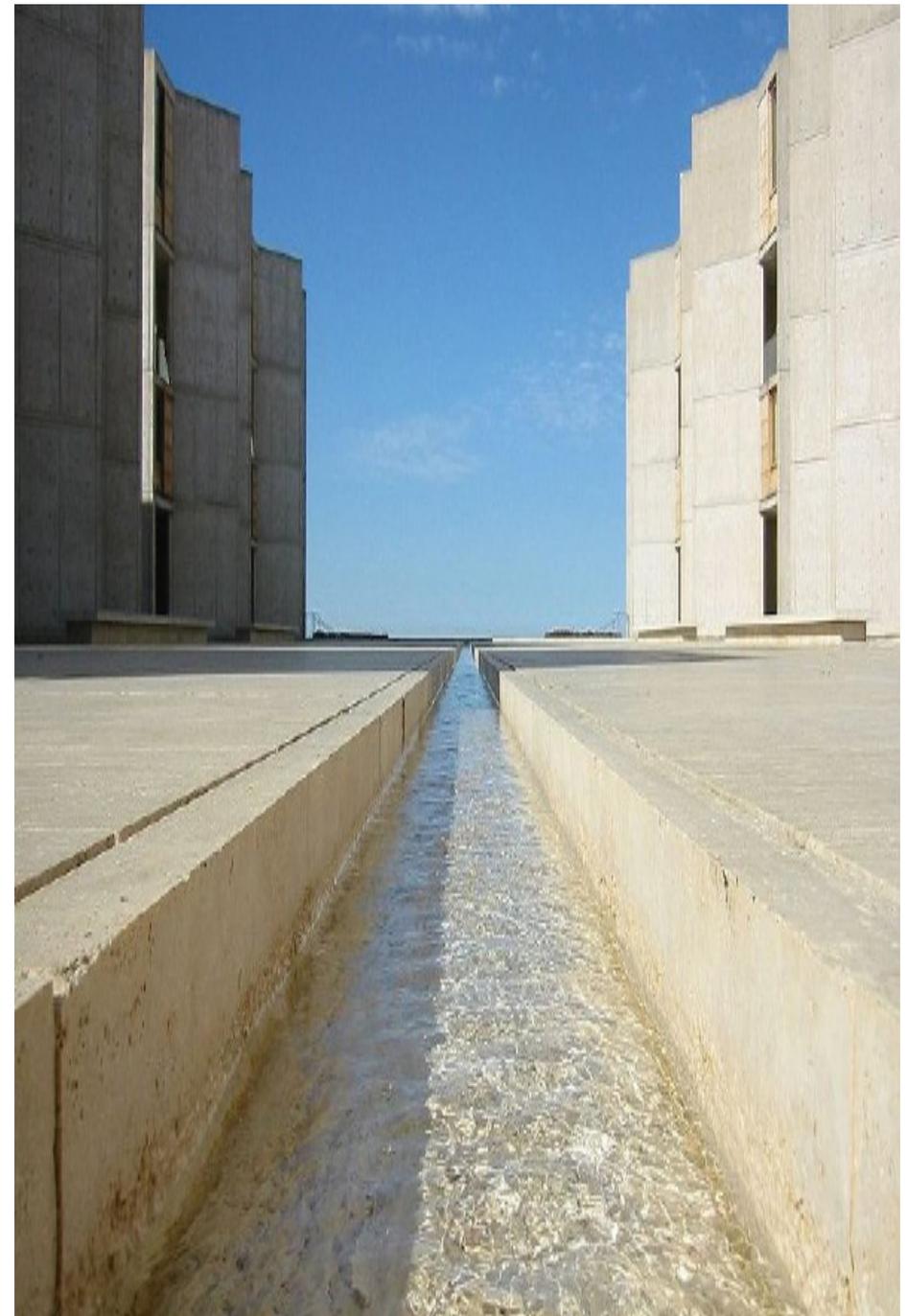


Figure 12 Salk Institute, La Jolla, California

And this underlines another dynamic of the quiet, enclosed, contemplative courtyard. Not only is it possible to frame views into the space but the space itself frames a view of the infinite sky above. This is not such a far step from James Turrell's architectural skylights, structures with open oculi that work magic with light and viewpoints.

7 Where on earth are the new cemeteries?

The transcendental qualities of cemeteries such as Stockholm's Woodland Cemetery are well documented (see, for example, Krinke, 2005). Such cemeteries, however, operate on a rather grander landscape scale than the intimate spaces we have in mind. Cremation rates in Britain average approximately 80% with much higher rates seen in Far Eastern and densely-populated countries (Economist, 2012). Many options are available for the storage or disposal of ashes, from conversion into jewellery to interment in mausoleums or columbaria. Could spaces dedicated to accommodating remnant ashes become sacred environs in crowded cities?

Modern cemeteries are often less than transcendent spaces being either institutionally deadening or brash expanses of polished marbles and plastic flowers. Clearly, consideration must be given to people's wishes and their need to grieve for and remember their dead. Pocket cemeteries containing columbaria take up little space and could be accommodated in city centres.

Santo Stefano al Mare Cemetery in Italy is not of this type, being of a more traditional burial style but it does replicate the Mediterranean style of



Figure 13 Stockholm Cemetery

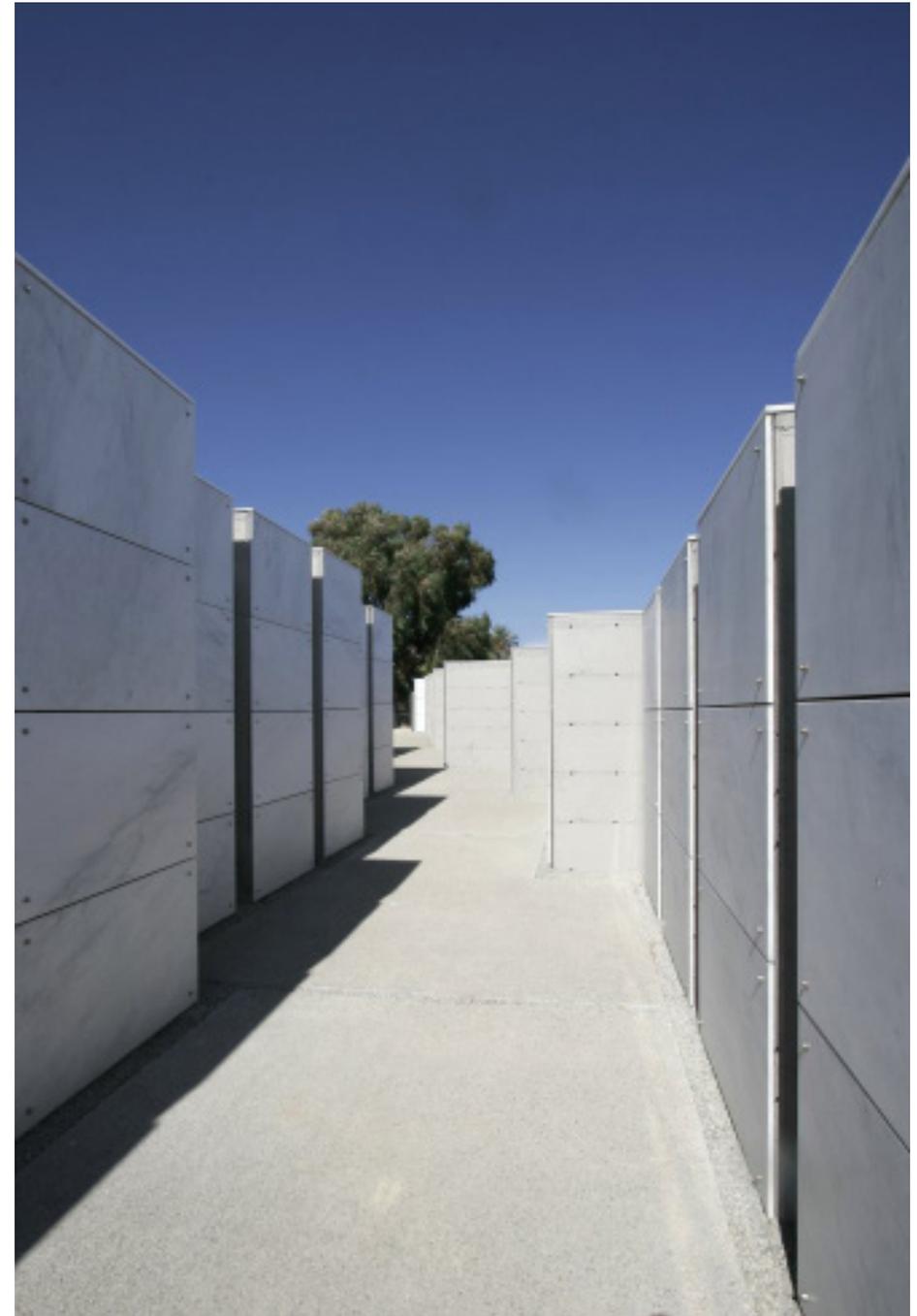


Figure 14 Santo Stefano al Mare Cemetery, Imperia, Italy

stacking graves to economise on space. The designer Aldo Amoretti and Associates have created a stark, austere space with an absolute minimum of both decoration and vegetation. Could this almost zen-like design be a transcendent space, both the design rationale and the associations with death forcing us into states of deep contemplation? It certainly departs from our associations with traditional graveyards of abundant greenery, space, variety and organic form.

Megacities tend to be places of transience. The crowded centres may be home to large populations but there is a lack of rootedness, what Martin Heidegger called the 'homeless mind' (Heynen, 2000). Can such transient metropolises accommodate places such as cemeteries that by their nature require long-term commitment? Whilst we may decry the destruction of an iconic building, the removal of a cemetery wherein lie the remains of our nearest and dearest will be even harder to swallow. The new cemeteries will require a more stable population; however, as immigrant communities become better established they are more likely to bury their dead in their adopted country (Worpole, 2003).

8 How does light contribute to the sense of the transcendent?

An analysis of this question is somewhat problematic for the landscape architect. Whilst the creator of a building has the ability to play with light, given the enclosed nature of their creation, landscape architects have fewer options. Still, an investigation is useful not least because the dividing line between building and landscape is never entirely clear-cut.

Paul Goldeberger (2010), as we have seen, points out that we always speak of sacred space rather than structure and that, paradoxically, the corporeal (bricks and mortar) leads to a representation of spirit. Tadao Ando has designed a number of Christian churches which could be characterised as 'empty modernist boxes' (2010) but made of a polished concrete of such perfection that his buildings 'sing about the highest truths in life' (Daelemans, 2015). It has been said of his buildings that:

the rendering of the invisible light as palpable, touchable and visible creates a sacred place. (Baek, 2009)

His transcendent Church of the Light relies for its magic upon a cross-shaped slit in the plain concrete walls, walls 'of no anthropomorphic form' (*ibid*) through which the light pours. More usually the central representation of the cross in a church is constructed of corporeal materiality; here light 'isolated and accepted by physical form' (*ibid*) creates the image and renders the space uniquely sacred.

Luis Barragán also used light to create a sacred experience; indeed he was of the opinion that 'architects are forgetting the need of human beings for half-light, the sort of light that imposes a tranquility'(Jaime & Lau, 2012).

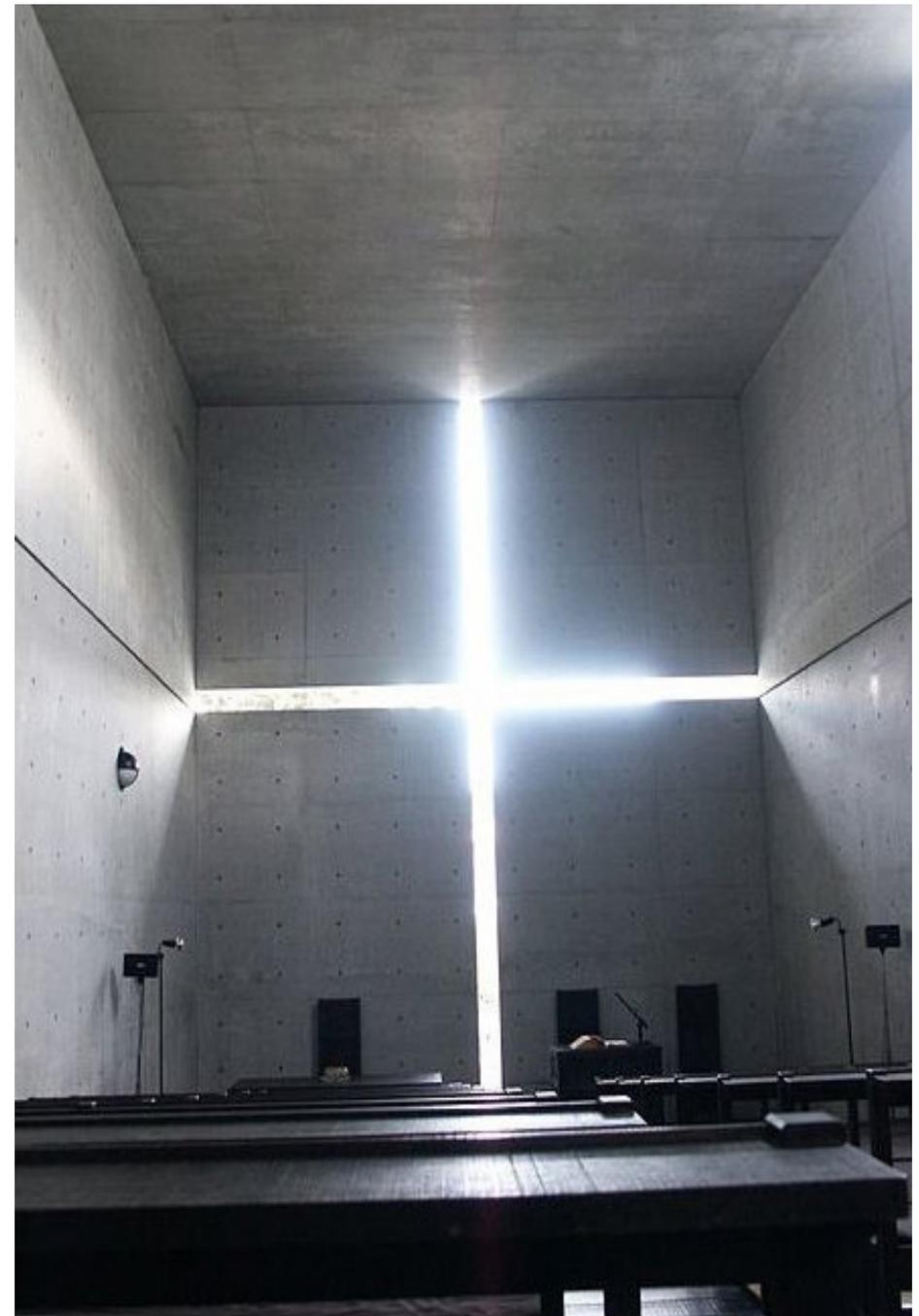


Figure 15 Church of Light, Ibaraki, Japan



Figure 16 Casa Gilardi, Takubaya, Mexico



Figure 17 Casa Luis Barragán, Mexico

The light entering his Tlalpen Chapel is orchestrated so that the greatest illumination coincides with the morning religious services. As the day wears on the light becomes more diffuse (it enters from the east) allowing for an atmosphere more compatible with personal contemplative practice. Unlike Ando's austere grey walls, Barragán employs the vibrant colours of his native Mexico to augment the magical properties of light. In his Casa Gilardi the mix of light and colours conspire to produce a reflected green on the swimming pool, a colour he never used as he believed it belonged to the domain of nature. The effect is that 'when mirrored, colours and forms liquefy in the abyss of mystery' (Duraó, 2010).

Nordic countries have a strong tradition of employing white light to augment the sacrality of their religious spaces. Light enters low in winter, illuminating the white walls and tracing a pattern across the walls of the church. Summer light is more diffuse as it does not enter directly, the sun being higher in the sky (Schielke, 2014).

James Turrell creates contemplative spaces almost exclusively through the use of light. Underground chambers focus upon an oculus of light entering from overhead such that 'the awareness [of sky] is made quite different' (Art21, 2001). Light for him is of such importance as 'all or most spiritual [and] near-death experiences are described with a vocabulary of light' (Madeleine, 2014). He also ascribes his Quaker background as instilling in him a fascination with the light. Indeed the reformed churches' rejection of decoration in their places of worship, transforming them into luminous sanctuaries of white light, may have made them far more distinctive from the mundane than they had intended.

What then of the dark? That light requires darkness is an overstated cliché. But experiencing the dark, in and of itself, may become a spiritual exercise. Nocturnal landscapes switch off our over-active visual sense. Scents seem amplified. Touch, 'the most solid of senses' (Morris, 2011) becomes our guide. Sounds may seem more threatening. Colours transform: red flowers turn black in the gloaming. Edmund Burke, concerning the sublime, stated that 'darkness ... is known by experience to have a greater effect on the passions than light' (Pelletier 2006). Nocturnal walks through the landscape encourage an appreciation of the dark as a natural phenomenon rather than a metaphorical construct.

9 How do the non-visual senses contribute to a sense of the ineffable?

We have looked at the importance of light to a sense of the sacred but in our visually-obsessed world we often forget to experience reality through the other senses. Spaces create a specific soundscape – a 'sonotope'. Whereas we often look at sound from the point of view of remediating the effects of unpleasant noise, we less often examine its beneficial effects.



Figure 18 Soundscape

A doctoral thesis by Per Hedfors (2003) examines the importance of soundscapes in general to landscape architecture. Quoting Anderson et al, certain sounds are considered 'enhancing'. Thus, natural sounds are rated positively, mechanical sounds negatively, whilst human and domestic animal sounds are considered neutral. Some sounds, such as bird-song, are found to be enhancing in all settings. Somewhat counter-intuitively, traffic sounds are considered some of the most enhancing sounds despite these being the most frequent target of noise remediation measures; perhaps a low level of background noise is found to be comforting.

Quietness is often seen as being necessary for contemplation or transcendence. Hedfors sees 'auditory refuges' (2003) as being more realistic than super-quiet spaces in outdoor landscapes of crowded urban areas. Perhaps a sustained background matrix of consistent noise is acceptable. Auditory interventions may be transcendent if of the right type, such as natural sound. Alan Watts (1995) recounts the lecture given by a Zen master:

On another occasion a master was about to address an assembly of students when a bird began to sing in a nearby tree. The master remained silent until the bird had finished, and then, announcing that his address had been given, went away. (Watts, 2003)



Figure 19 Hierotopy

When blindness overtook John M Hull he kept a diary of his experiences. Rainfall, and the soundscape it produced, led to moments of sacred beauty:

It throws a coloured blanket over previously invisible things; instead of an intermittent and thus fragmented world, the steadily falling rain creates continuity of acoustic experience. (Hull, 2013)

Properly experiencing sound can lead us to an appreciation of the entire ecosystem. Francisco López (1998) asserts that bird-song is as much a product of moist air, topography, trees and types of materials in the earth as of the bird itself. This pointed concentration upon natural sounds and landscape is, surely, a meditative experience.

Julio Bermúdez (2015) encapsulates perfectly the relationship of the sense of smell to the sacred:

Smell can also convey the sacred. It is a powerful trigger, igniting memories, marking the boundaries of a place, announcing the seasons and setting the stage for prayer and rituals.

He further elaborates that scent is associated with certain events, with specific locales or can be symbolic such as the smell of incense establishing 'an ambiance for a liturgy, service or moment of contemplation' (*ibid*).

The touch of materiality may be another portal to the ineffable. As with all the senses the pointed concentration upon sensation may slow the thinking mind. The silky-smooth polished concrete walls of a Tadao Ando church are an invitation to touch. Few can resist the urge to reach out and feel the texture of a Tibetan cherry, already polished by numerous other hands. Architectural critics speak of 'haptic' buildings: touchable spaces (Sovik, 1982).

Byzantinist Alexei Lidov (2015) has developed the concept of hierotopy to refer to the combination of elements that create sacred space. The physical form is but one aspect: light, liturgy, incense, art, gesture, image, taste, amongst other components, are 'woven together into a single whole' (*ibid*). Although referring specifically to religious places of worship, the notion of a web of differing senses, objects and rituals combining to create a sense of the sacred is a reminder that we cannot concentrate exclusively on our sense of sight. The co-ordinator is likened to a film director, perhaps a good analogy of the role a landscape architect has to play in the contemporary world.

10 Is there a feminist dynamic of sacred space?

The creation of sacred space has, historically, been the creation of the male mind. The giants of 20th century Modernism were all men, the likes of Le Corbusier, Gropius and Mies van der Rohe.

Katharine Howe Toledano (2014) has undertaken a study of one of Le Corbusier's more transcendent creations, the Chapel of Notre Dame du Haut, often called Ronchamp for convenience. Le Corbusier had an interest in Gnostic and Cathar theology which envisaged a merging of dualism into



Figure 20 Murals at E-1027, Alpes Maritimes, France

a unified perfection of being, and this notion of interdependent dualism is seen as a core element of his work. She sees the womb-like interior of the chapel as embodying the female principle linked to the earth. Light (from the sun), embodying the male principle, enters the feminine space of the chapel. Both the rational mind (man) and the body (woman) are lost, resulting in a transcendent experience and the freeing of the spirit.

This association of the female principle with wild, untamed, earth-bound nature and the male principle with civilisation and the city was emphasised by Leslie Kanés Weisman (1994), a feminist analyst of the built environment. This dualistic tension is expressed by mankind's domination and control of the natural environment. As Howe Toledano (2014) says: 'the search in architectural design for a third way, an approach that goes beyond dualism, especially in spaces meant to be sacred, would inevitably move away from the opposition of spirit and earth.' This may already be happening: landscape architecture is increasingly looking for a sustainable approach that works with, rather than against, the natural environment, a third way that evokes the fusion of the male-female duality.

Howe Toledano (2014) sees the sensual 'nature-inspired' shape of Ronchamp, a contrast to Le Corbusier's more usual geometric design, as a possible representation of the feminine. As Paul Goldberger (2010) points out, such organic shapes were, at the time, novel and difficult to construct. Their very strangeness gave them an almost automatic aura of the ineffable. With the powerful computers at the disposal of contemporary architects, such amorphous 'female' shapes are becoming more ubiquitous.

Eileen Gray's pioneering E-1027 house in Provence introduced a female



Figure 21 Ruined farmhouse

sensibility into the modernist movement, humanising and, perhaps, sacralising Le Corbusier's *machine à habiter*, the 'machine for living'. The house is often used as a metaphor for the sexual politics of architecture. Le Corbusier painted a number of murals on the plain walls of the house against Eileen's wishes in what has been termed as his attempt to 'assert his dominion, like a urinating dog, over the territory' (Moore, 2014). Gray's design was gentler and more in tune with its environment than some of the 'temple-like' (*ibid*) structures of le Corbusier and his peers.

11 Why do ruins contribute to the sense of the sacred?

We probably all think we know the answer to this: that ruined buildings provide an evocative link to a distant past, evoking emotions of loss, perhaps a contrast to the 'difficult' present, a sensation of the passing of time and our very mortality.

Surprisingly, perhaps, Simon Jenkins, chairman of the National Trust, has decried the 'cult of the ruin' in Britain (Jenkins, 2011). He laments the fact that every ruin must be preserved as if in aspic with no openings for reconstruction or re-use; that every ruin has 'the same notices, the same lawns, the same health and safety notices' rendering the spaces 'soulless, their past and their purpose evoked only in artist's impressions' (*ibid*).

One wonders if it is this very attention to preservation which leads to such soullessness. Jenkins (2011) lauds the level of protection accorded to historic ruins, contrasting the situation with that prevailing in France and, especially, Italy. Perhaps the untended ruin, slowly disintegrating, with little sense of contemporary intervention, is the type of space that evokes the



Figure 22 Barking 'ruin'

greatest sense of the sacred within us. It may be difficult to have heartfelt feelings towards a meticulously maintained pile of rocks with what Jenkins (2011) terms 'puddles of mortar' indicating naves, cloisters and towers.

Visiting my godfather's ruined house, slowly being infiltrated by seedling laurel trees, does indeed produce feelings of transcendence – even feelings of beauty. There is a mystic sadness to seeing domestic rooms exposed and disintegrating. But there is also, paradoxically, something almost joyful to behold nature reclaiming its own. Jenkins (2011) describes the Romantics' obsession with the disintegration of ruins as being 'warped'. As he says 'they even built new ruins to evoke respect for the passing follies of mankind'.

The regeneration of Barking Town Square resulted in the building of a 'new ruin' composed of old bricks which was chosen by the Guardian's Rowan Moore (2010) as one of the top ten best public works of art in Britain. Whilst described as being engaging, playful and surprising, rather than having any particular transcendent quality, it does demonstrate the power of even 'faux' ruins to connect with our past. Carlo Scarpa's assuredly sacred Brion Cemetery has been described as a 'built ruin'. (Willis, 1999). The ziggurat motif gives an impression of erosion. As Willis (1999) says 'the Brion Cemetery does not imitate the appearance of a ruin so much as recreate the way ruins tend to make us think'.



Figure 23 Institut du Monde Arabe, Paris

12 Can we envisage the sacred in a tessellation?

Patterns cannot be originated, they can only be taken notice of. When a pattern shows itself in tiles or on paper or in your mind and says, 'This is the mode of my repetition; in this manner can I extend myself to infinity,' it has already done so, it has already been infinite from the very first moment of its being; the potentiality and the actuality are one thing. If two and two can be four then they already are four, you can only perceive it, you have no part in making it happen by writing it down in numbers or telling it out in pebbles. When we draw on paper or lay out in tiles a pattern that we have not seen before we are only recording something that has always been happening; the air all around us, the earth we stand on, the very particles of our being are continually active with an unimaginable multiplicity of patterns, all of them contiguous with infinity. (Extract from *Pilgermann* by Russell Hoban, 1983)

Michael Kelly (2005) points out that the western view of Islamic art as being essentially decorative ignores its theological function. Islamic sacred space is often characterised by expanses of endlessly repeating tiled patterns – tessellations. They reflect the infinitude of God and have the bizarre effect of making the user unsure of background from foreground, perhaps an intimation of the unity of all things. Ernest G McGlain (undated) writes: 'Islamic geometric constructions are not static, visual images but flowing forms which involve us bodily in their intricacy', constructions which fill



Figure 24 Gebetomat



Figure 25 Lumen Centre, London

us 'with an ecstatic flowing harmony the untrained eye can never quite analyse'. Islamic gardens are a reflection of Islamic heaven and channel, not an ascetic austerity but an abundance of sensual pleasure, albeit contained within a strict geometry. McGlain (undated) marvels at the fact that the holiest artefact of an obsessively geometric people, the Ka'ba, should in fact be a very imperfect cube.

13 Are multi-faith spaces sacred?

Multi-faith spaces (MFSs) are an increasingly common phenomenon in airports, universities, motorway services and large institutions. They provide a common space (or sometimes spaces) for practicants of different religions to worship according to their particular cult. They are of recent origin, the first dating from 1988 at Vienna Airport (Crompton, 2013).

Difficulty arises in how space is organised. Christians may prefer orientation to the east which may not necessarily coincide with Muslims' preference for a space facing Mecca. Should there be separate areas for each cult with some iconic representation of the religion or should there be an undifferentiated space open to all? What of Pagans and Wiccans who prefer to worship outside?

Andrew Crompton's (2013) examination of MFSs concludes that if followed to its logical conclusion the architecture of such places becomes non-architecture. In the first place many MFSs are located in leftover space of no rational shape. The desire to render the spaces inoffensive to any particular religion results in spaces that are sacred to none. The end-point is a non-place reminiscent of a Beckettian play. Enclosed places of blank walls lacking decoration may become transcendent in the hands of Tadao Ando but his churches have a positive intent based on Christian, or even Zen, precepts. MFSs have only negative precepts. Crompton (2013) calls the style of these places 'vernacular modernism' meaning they are non-architectural but use global materials. They are places with no roots in either time or space. German artist Oliver Sturm's Gebetomat, a booth that delivers prayers in 35 languages, may be an ironic answer to the problem.

This is not to say that there are no genuine efforts to create common religious spaces for all creeds based on sound architectural principles (multifaithspaces.com, 2014). But it is a highly complex matter. Spaces that are designed to express the universal sacred and thus have a defined positive design objective would seem to offer a better opportunity to transcend than the one-size-fits-all approach of the MFS.

14 Can we experience sacred space through art?

The question is too all-encompassing to answer in any direct manner. Therefore I take a work of art that seems to epitomise sacred space for me. Giorgio de Chirico's *Mystery and Melancholy of a Street*.



Figure 26 Mystery and Melancholy of a Street by de Chirico

Differing vanishing points create a sense of the surreal. Light is used to delineate space but, again, the treatment defies logic. The quality of the light is that of a still autumn afternoon when time appears to be suspended. And yet the sky almost indicates darkness. Mystery pervades. What is around the corner? What does the shadow emanate from? What about the rail carriage? The child with the hoop indicates innocence and joy. But there is a sensation of menace or fear. The space is beautiful – and slightly creepy.

Mystery and enigma pervade the painting and these are words often employed by de Chirico. The classic arcades and treeless street create an almost austere and emotionless space. The arches look like cold, staring eyes. But the girl with her hoop injects emotion – transcendence – into the scene. We identify with her, want to protect her. She brings out something in us – love perhaps? Others may choose to disagree!

15 Are memorials transcendent spaces?

In London I visited the Battle of Britain Monument on the Victoria Embankment, a memorial not just to the military personnel directly involved, but to all who experienced the Battle of Britain. It was not a transcendent experience, although I felt that it should have been. I wondered why this should be so. The premise of the monument, a sculpture commemorating a visceral moment in Britain's history, inscribed with the names of the heroic pilots, many of whom had died, should have induced a contemplative feeling.

The memorial is situated close to a relatively busy road. Nearby is a tour bus stop. There is no sense of enclosure. There is no silence. The monument itself is excessively detailed. It seems undifferentiated from the busyness of its surroundings. One comes across it almost by accident. There is no sense of pilgrimage to reach it. There is no sense of reverence. Nor even of sublimation.

This is not an aesthetic examination of the monument, although it has been termed 'vulgar and sensational' (Stamp, 2010). Rather, I wish to examine its effect upon the individual. I did not observe anyone stopping in silent contemplation. The experience felt like viewing yet another visitor attraction, not surprising given its location near to London's tourist epicentre.

Tracey Emin's 'memorial' in Folkestone, if the term is apt, seems to be on a different plane. Entitled *Baby Things* it is an installation to reflect the high

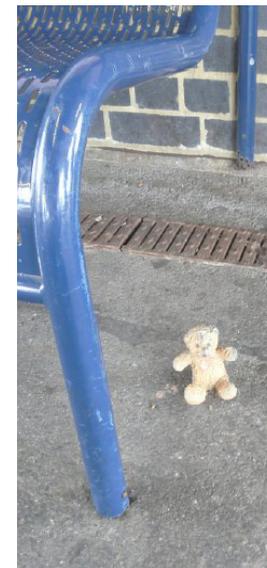


Figure 27 Tracey Emin's *Baby Things*, Folkestone



Figure 28 Battle of Britain Memorial, Embankment, London

rates of teenage pregnancy in the town. Small items of baby clothing and footwear, cast in bronze and painted in the original colours, are randomly draped or dropped as if lost on the way. The effect is one of deep poignancy. The slight disconnect between the item and the surroundings – such as a teddy bear under a railway station bench – invites a transcendent concentration upon the item. The lack of bombast is striking. Emin has proved to be a controversial artist but has used intimacy in her art to telling effect. The installation recalls the pathos of *Shoes on the Danube Bank* in Budapest: a memorial to Jews forced to remove their shoes prior to being shot on the banks of the river, the simplicity and intimacy of the items having a transcendent effect.

Memorials usually recall the dead and cannot but be places of contemplation, inviting an almost ritualistic reverence. But if the architectural framework does not play a cohesively supporting role the sense of the sacred is easily lost.

16 Is a sacred space the same as a restorative space?

The theories formulated by Rachel and Stephen Kaplan on the restorative benefits of nature on human wellbeing are well-documented (Kaplan & Kaplan, 1989). Both come from a background in psychology and it is to physical and psychological wellbeing (as demonstrated through physiological responses) that they have directed their research.

Rebecca Krinke (2004) is currently the foremost writer on contemplative landscapes. She provides a summary of the four stages of restorative theory and the possible connection with contemplative states. Briefly, the four attributes are as follows:

Fascination: involuntary and pleasurable attention to a landscape involving little effort, such as observing clouds.

Being away: a sense of physical or psychological removal from the everyday and mundane

Extent: Krinke describes this as ‘a balance between order and mystery’ (*ibid*). It implies being in a different world but still connected to the greater whole

Compatibility: the Kaplans employed an Irish saying to describe this attribute: ‘may the wind be always at your back’ (Kaplan & Kaplan, 1989). It implies an environment that is both safe and supportive and one that does not require mental effort in order to be effective.

The Kaplans (1989) noted that the fourth stage has definite aspects of the spiritual, ‘a concern for meaning, tranquility and for relatedness’. They were surprised to discover this level of restorative therapy:

...although the spiritual does not hold a prominent place in the writings of most psychologists, the concern for meaning, for tranquility and for relatedness has not gone unnoticed.

Physical, psychological and spiritual wellbeing may be a continuum that cannot be sub-divided. The Kaplans almost imply an evolutionary rationale for this spiritual dimension: the ability to reflect and take stock in order to avoid a costly error. Perhaps the hazards of ‘the unexamined life’ are functional as well as moral (*ibid*).

Recent research in the field of evolutionary biology would suggest that concepts such as beauty may be universal rather than inculcated. Jay Appleton suggests that the almost universal appreciation of archetype landscapes, regardless of geographical origin, may be hard-wired and related to the landscape of our earliest evolution (Sonntag, 2014). Perhaps our need for spiritual replenishment also has an evolutionary dimension.

The Kaplans’ research suggests that we do not require wilderness to induce restoration; nearby green space is sufficient. Research by Frances E Kuo in Chicago housing projects suggests that access to even pocked-sized green spaces has restorative benefits on children (Clay, 2001); however, the Kaplans (1989) suggest that compatibility requires ‘increasingly high quality restorative settings’.

17 Do we need green space to experience the sacred?

We have already noted the importance of green space in the Kaplans’ Attention Restoration Theory (ART) (Kaplan & Kaplan, 1989). Why, then, are many of the spaces we have looked at so lacking in vegetation?

Paul Goldberger (2010), in analysing the sacrality of Tadao Ando’s Church of the Light, compared it with Fay Jones’s Thorncrown Chapel. Thorncrown is a largely transparent glass structure set in verdant woodland with a ribbed structure intended to simulate nature; Ando’s construct is a concrete box. Yet Goldberger finds the Church of the Light by far the more transcendent experience:

The concrete structure seems, when you first see it, to suggest no sympathy with nature at all, and no mystery, yet it brings forth the most profound connection to nature, and the greatest mystery, as daylight glows through the cross cut into the concrete wall and between the two concrete planes of the entry wall. (Goldberger, 2010)

This is no new phenomenon. Cro-Magnon man chose caves to commune with the ineffable. Man’s places of worship have traditionally been enclosed places of stone. James Turrell’s oculi open directly to the sky with no trace of the verdant earth visible.

A lack of green space does not mean a lack of nature. Light pours through both Ando’s church and Turrell’s skyscapes. The Kaplans implied that the stage of ‘compatibility’ may have an evolutionary rationale, but required increasingly high settings. Sacred space was often differentiated from the

mundane. The watered savanna archetype so appreciated by mankind may represent the mundane needs for security and food. Sacred space was often sought out, inaccessible, perhaps starkly differentiated. Rocks, mountain tops, caves, these environments are often bare and austere. Could it be that a replication of this archetype can produce an evolutionary, contemplative imperative within us, to avoid the hazards of the 'unexamined life' (Kaplan & Kaplan, 1989). The Temple of Apollo at Delphi, home to the oracle who prophesied from the depths of the underground adyton, was engraved with the phrase 'Know Thyself'.

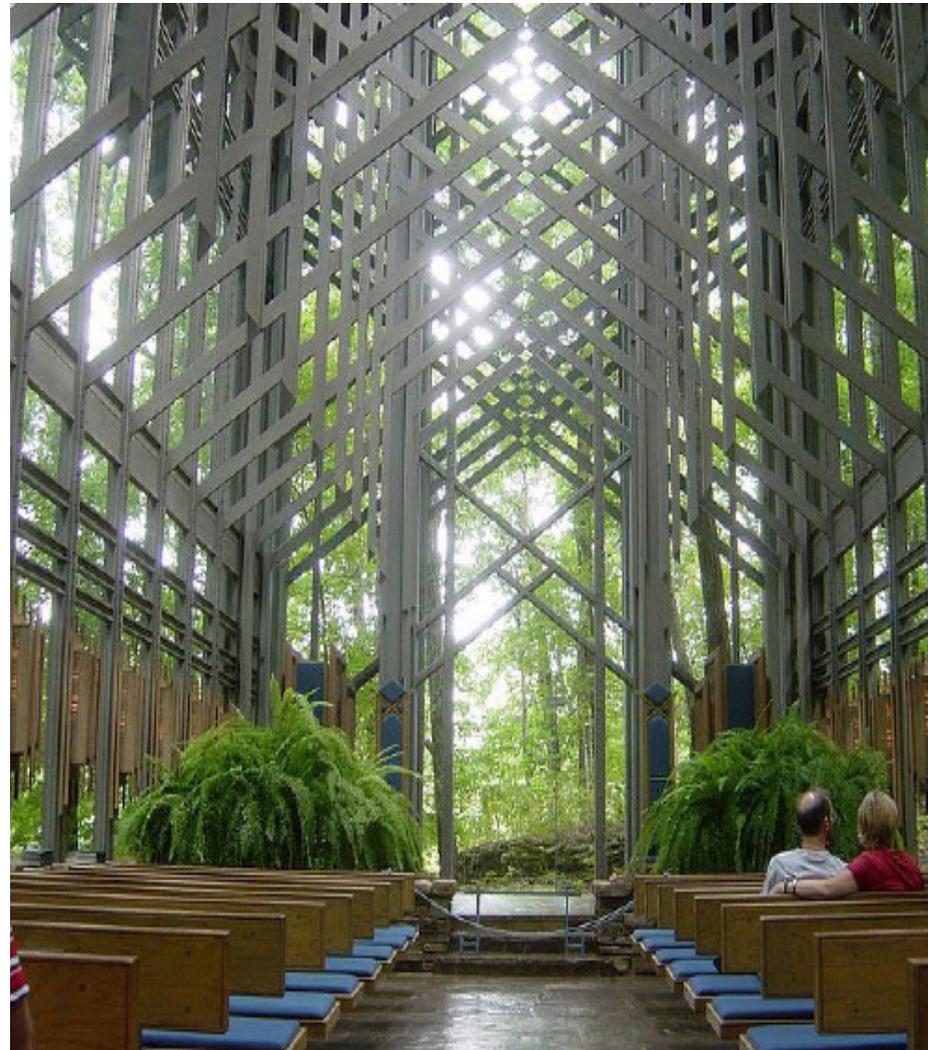


Figure 29 Thorncrown Chapel, Arkansas

18 What role does stimulation have in experiencing the transcendent?

One of the most salient features of transcendent spaces is their seeming simplicity. Think of Tadao Ando's churches of smooth concrete, Luis Barragán's plain rendered walls, or Louis Kahn's austere plaza. 'Aesthetic dampening', a phrase used by Paul Trieb (Krinke, 2004), may be a more fitting description, for to create such sacred spaces is no simple task. This does not mean that there is a dampening of the emotions. Rather, like the single-pointed concentration of meditation practice, attention can be focused upon a particular element. Whether this is a shimmering cross of light, a mesmerisingly vibrant plane of rendered wall or a breath-taking view of a Pacific horizon, the dampening of other stimuli elicits an intensified response in the individual.

The absence of distracting noise, or the more positive concept of silence, is also seen as being of vital importance in creating a contemplative state (Sonntag, 2014). This is partly why enclosed courtyards are of such importance as they dampen external noise and other stimuli. There may be a symbiotic process at play here: spaces that intrinsically appear to be sacred may induce a sense of reverence, and thus silence, in the user. This silence further intensifies the sense of the sacred. Eighteenth century Romantics looked for a sense of the sublime in the sensory overload of



Figure 30 Pantheon, Rome

dramatic landscape. Our modern cities are often places of overwhelming stimulation for all the senses yet they rarely induce an appreciation of the sacred within us. True, the modern skyscraper may have the overwhelming effect of the mediaeval cathedral with its skyward orientation; indeed the relatively simple, but dimensionally overwhelming, architecture of the modern building could momentarily jolt us out of our mundane thought onto a different plane. But the noises, stresses and distractions of the modern metropolis soon reclaim us.

Ironically, in the past our sacred spaces may have worked their magic by sensory overload. The mediaeval peasants lived all their lives in natural simplicity. Visits to church often involved an interaction with such sensory richness. Shining chalices, jewels, painted frescoes, stained glass, incense, ritual, Lidov's (2015) hierotopy in fact, would have sublimated mundane thoughts onto the spiritual sphere. These days we gravitate towards the simple to reach a similar destination. The simplicity of contemporary churches is a reflection of this (Schielke, 2014).

19 Can architecture induce similar brain patterns to internal contemplation?

The realm of the sacred, the 'ineffable', would seem to be impervious to empirical examination. Nevertheless the area of architecture and neuroscience is a field of increasing investigation, especially the effect of architectural experience on the brain. Julio Bermúdez of the Catholic University of America is one of the leading lights in this area and is particularly interested in what he calls 'Extraordinary Architectural Experiences' and the role of the sacred in contemporary life (see, for example, Bermúdez & Ro, 2013).

A number of studies undertaken have assessed the effect of architecture on participants through a subjective feedback process; however, more interesting are studies involving fMRI scanning. Bermúdez contends that experience of extraordinary (sacred) architecture or contemplative buildings has the following effects:

...markedly distinct phenomenological states and neural activations [which] allow subjects to enter into a meditative state with diminished states of anxiety [and] an activation of subjects' cortical regions of sensory-motor and emotional integration, non-judgementality, and embodiment. (Bermudez, 2014)

There was a correlation between depth of experience and deactivation of major cerebral regions, noticeably the prefrontal cortex. The study exhibited both similarities and differences to internally-induced contemplative states but provides some empirical foundation for the effect of architecture upon the transcendent aspects of the brain.

Bermúdez has also found that contemplation of sublime architecture

can reduce mind-wandering, inhibit the 'inner chatter' and produce non-evaluative and non-judgemental states of mind (Bermúdez, 2013).

Harry Francis Mallgrave (2013) differentiates between emotion and feeling: 'emotion takes place during the perceptual act, while feeling is our conscious awareness of these emotional events'. He continues that emotions are also connected to our bodily movements and uses Robert Vischer's term *Einfühlen* to describe this. *Einfühlen* is our way of 'feeling into' the world corporeally. We feel trapped in a low-ceilinged room, we feel exalted in a Gothic cathedral. Architecture must be experienced corporeally and neurologically. This is related to notions of dynamic contemplation (see Moura 2009). Pilgrimage, movement of monks through cloisters, ascent and descent, all these affect our sense of the sacred. This is why visually-focused computer-generated design may sometimes prove problematic.

20 Are there virtual sacred spaces?

We have seen that the notion of *Einfühlen* revolves around the notion of experiencing space with mind and body. Osmose is an immersive virtual reality (VR) installation by Char Davies. In contrast to what she terms the 'hard-edged realism' of standard VR, the world of Osmose is semi-abstract, flowing, ambiguous and transitional (Davies, 1995). Navigation (floating or falling) is controlled by the breath, not through a hand-focused joystick. This directs the experience into the body and 'the body's most essential living act' – breathing. Participants (25,000 to date; see Krinke, 2004) report a rapid transition from a desire to do (directed movement) to being (a

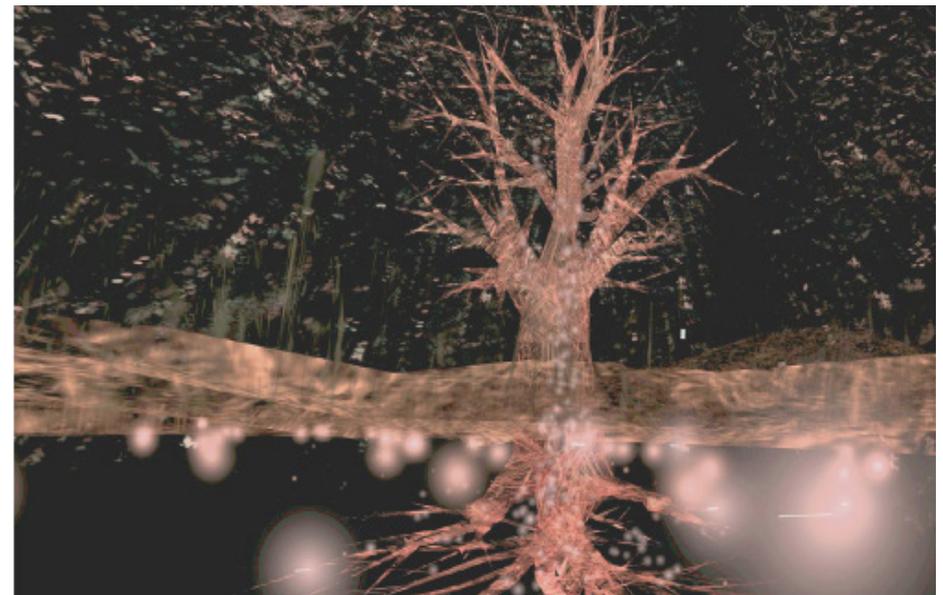


Figure 31 Osmose landscape

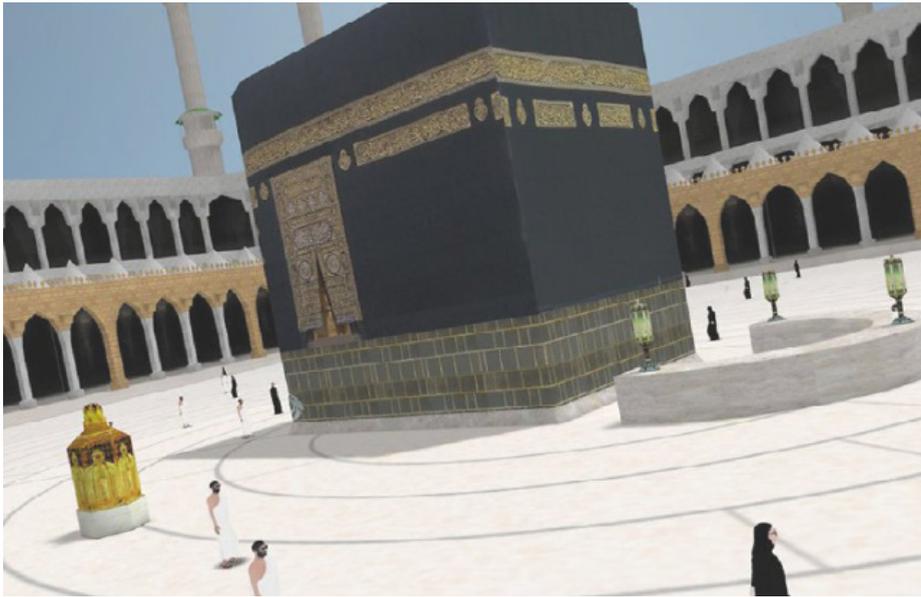


Figure 32 Virtual Mecca

state of free-fall). As Rebecca Krinke (2004) says 'this makes room for other modes of perception; instead of the mind running on automatic, it begins to pay attention in the present'. Such an experience implies a transcendent experience in a sacred space.

Krystina Derrickson (2008) has written on the experience of visiting Mecca virtually on Second Life, a multi-user virtual environment (muve). Millions undertake the Hajj to Mecca each year but many millions more are unable to do so. Second Life offers the faithful the opportunity to undertake the pilgrimage virtually. This throws up a number of issues as regards sacred space. Is a space sacred because of its corporeality, its 'suchness', its location on an axis mundi, and can a virtual space replicate this? Or is the space made sacred by the attitudes and rituals brought to it by users? Derrickson removes her shoes, virtually, prior to entering the mosque. For her there was a personal impetus to do so. Not all participants felt this, many disputing whether the virtual mosque was a sacred space. She also noted that the ritual continuity of the pilgrimage can be interrupted by the mundane activities of visiting the bathroom, or the kitchen for a snack. Nevertheless Derrickson (2008) found from user testimony that Second Life is a 'site of emotional experience of the sacred'.

Krinke (2004) asks, referring to the virtual environment, 'what might a perceptually refreshing work of landscape architecture look like?'. Is there, perhaps, opportunity for our profession to create sacred space in the virtual dimension?

21 Can we define the concept of the 'sacred'?

Having evaluated 20 questions and investigated concepts using words such as 'transcendent', 'ineffable' and 'spiritual', are we any closer to a definition of the sacred?

In *Orchestrating Sacred Space*, Adrian Ivakhiv (2003) characterises sacred space as being inherently given, socially constructed and shaped, over time, through human interaction. Such a space is 'an opening onto a dimension of otherness, an ever-elusive, trickster-like *more* that eludes the grasp of systematic and objective knowledge'. He reiterates the importance that such openings be kept open and not reduced to some 'explanatory principle' or simple social construction. Furthermore he quotes Eliade's definition of the function of religion as being an 'opening toward a world which is superhuman' (Ivakhiv, 2003).

If, as Le Corbusier claimed, the sacred is 'ineffable' and thus undefinable, trying to pin it down is much like trying to define the qualities of water by grasping it. But allowing water the freedom to flow through our hands we begin to sense its essence. Perhaps it is the same when we seek to understand the sacred. By seeking to define it we run the risk of losing it.

The idea of openness, that the sacred is an opening, is an attractive one. Whether we view it as a metaphysical opening between the human and trans-human world, or a conceptual opening, whereby we give ourselves the freedom to allow space for what could be, it is a word that does not tie down the concept. This might come across as something of a cop-out. But if the sacred is about openness, then it cannot be about its opposite, which is the world of closed empirical definition.

Perhaps the greatest signpost to the sacred in these ruminations comes from Yeats' poem: 'my body of a sudden blazed'. A non-intellectual, unexpected, visceral experience that defies logical explanation. The ultimate question may be: can we, as landscape architects, employ our skills to facilitate the emanation of such transcendent – or 'sacred' – experiences in our crowded metropolises?

Conclusion

This examination of the sacred and its experience in urban environments has, by necessity, been somewhat more intuitive than academic and has veered off on tangents. This is all to the good. Nevertheless by taking on a wider view of the subject we may be able to isolate, in a more empirical manner, those design elements that can contribute to the creation of more transcendent spaces in crowded urban areas. The concept of the sacred is not one that is currently of great importance in landscape design. But it is a concept that is not going away for it is as old as humanity. No matter how secular our society, we continue to have a spiritual craving to experience the sacred.

Biographical notes

Paul Foley is a recent diplomate in Landscape Architecture from the University of Gloucestershire. He is particularly interested in how contemplative spaces can be integrated into the fabric of modern cities and this paper speculates on possible answers to questions raised in an earlier paper on sacred landscapes, published in the previous issue of this journal (Volume 14, 2015).

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WHAT IS HUMAN CREATIVITY ON AN EVOLUTIONARY LEVEL?

Victoria Gosden

Introduction

Creativity is a concept relatively easily understood, but much harder to explain. Harder still is defining it specifically as it applies to human beings; why we are creative and how we use it. It is undeniable that the capacity for innovation among *Homo sapiens* is wholly unique within the animal kingdom, and has allowed our species to reshape the entire planet to an unprecedented degree. But what exactly is human creativity? How is it unique? And why did we evolve to be so creative in the first place?

Further adding to the difficulty of defining an already slippery concept is the sheer scope of creative activities in which humans engage, and their unique and often unrelated attributes. An author may have no musical ability whatsoever, and a talented painter may be incapable of writing a poem. Philosophers, songwriters, scientists, chefs and mathematicians among many, many others can be said to be creative people, although the creative processes for each are – at least on the surface – vastly different. For the sake of exploring human creativity, however, it is necessary to find a core definition that covers each of these unique branches of ingenuity, and to discover which features they all share that cannot be found anywhere else within the animal kingdom.

Methodology

This article will explore creative behaviour in humans: its evolutionary origins, development throughout our history and, most importantly, what exactly it is that defines us as creative creatures.

In order to accomplish this, it will divide the question of human creativity into four sections. Firstly, it will examine the science behind our creative journey, exploring the evolutionary path our ancestors took on our first steps towards cultural and artistic modernisation. The paper will then examine the definition of the term *creativity* itself in order to bring clarity to the concept, using theories from Robert Fisher, Margaret Boden and Jose Gomez among others. Following this, works by Peter Carruthers, Helen Pringle and Merlin Donald will be explored in an effort to discover what it is about human creativity in particular that sets our species apart from the rest of the natural world, and to find out what exactly it means to be a creative human being. Finally, I will examine theories by the likes of Helen Pringle and Steven Mithen in an attempt to decipher the reasons behind

Man's sudden, seemingly inexplicable transition from a primitive ape into a creature capable of achieving the extraordinary feats that have become so commonplace in our everyday lives.

Background

It is theorised that the ancestors of modern humans began to craft tools around 2.5 million years ago. These primitive stone utensils were likely to have originated from ordinary rocks used to break open nuts, which then began to be struck against other rocks in order to create the first hand-axes which had a sharper edge. Following this technological advancement, however, humanity made very little creative progress for more than a million years, with the only notable exception being the discovery and use of controlled fire around eight hundred thousand years ago. It is worth noting that genetically modern humans were fully developed by around one hundred and fifty thousand years ago, but behaviourally they remained primitive until much more recently (Pringle, 2013). It was during a period known as the Middle Palaeolithic era (60,000 – 30,000 BCE) that Man underwent an unprecedented and widespread level of creative expansion (Gabora, 2012).

This phenomenon occurred at roughly the same time across both Europe and Africa, followed closely by the rest of the world, and with it came the development of advanced tools, art, religion and culture. It is generally agreed that this period was the birth of human creativity as it exists today, but the cause of this sudden, extraordinary evolutionary leap is hotly debated, and the theories are many and varied.

In order to understand what caused this leap and what it means to be a creative human being, it is first necessary to bring clarity to the definition of creativity and what it means to be creative.

What is creativity?

The definition of creativity, both on a practical and on a philosophical level, has been argued from a multitude of different angles across the ages, and as of yet, there is no universally agreed definition. As noted by Robert Fisher, 'We know creativity when we see it, but the mental processes involved are difficult to describe' (Fisher, 2004, p.7). It has been described as '[t]he ability to solve problems and fashion products in which all our intelligences are working together' by Howard Gardner (1997, sourced from Fisher, 2004), and 'imaginative processes with outcomes that are original and of value' by Ken Robinson (2001, sourced from Fisher, 2004).

As Fisher describes, 'To create something is to generate something. At the simplest level creativity is making, forming, or bringing something into being.' (Fisher, 2004, p.8). He goes on to suggest that creative behaviour is initiated with the birth of an idea or design. The uniqueness of this idea,

or lack thereof, is not in itself a judge of the creativity involved. Following this is the variation of, and building on, this concept, or the 'differentiation', and it is this which determines whether or not an activity is creative. He notes that creativity can be productive or reproductive, with the potential to encompass either an entirely original idea, or to be an innovative variation of existing concepts.

Gomez (2007) narrows creative behaviour into two cognitive forms – *convergent*, in which existing concepts are reshaped, improved and built upon, and *divergent*, which is focused around more original ideas. This is similar to Fisher's productive/reproductive theory, and builds on the concept in which new ideas can fluctuate in originality without losing their creativity. As his article states, 'An idea is creative when it brings a new insight to a given situation.' (Gomez, 1997, p.33). Gomez also acknowledges that creativity is not an inherent ability, although some are more creatively inclined than others. Instead, it is a skill developed through regular practice and experience.

Margaret Boden (2004) makes the important observation, however, that the definition of creativity as *bringing something into being out of nothing* is a flawed definition, as no physical object ever materialised from nothing. In addition, deriving a psychological concept is also invalid, as she describes: 'To define creativity psychologically as the *production of new ideas*, hardly helps. For how can novelty possibly be explained? Either what preceded it was similar, in which case there is no real novelty. Or it was not, in which case one cannot possibly understand how the novelty could arise from it.' (Boden 2004, p.11). She then proceeds to acknowledge that, whilst it is possible for an individual to have a thought which, insofar as anyone is aware, has never been had before, these are invariably based on a culmination of previous experiences. What's more, in calling every novel thought creativity, any act of randomness, regardless of how useful it is, can be defined as innovative behaviour. She suggests that there is a subtle but certain difference between spontaneous acts of random novelty and genuine creativity. For example, in her words, 'So if I remark... that there are thirty-three blind purple-spotted giant hedgehogs living in the Tower of London, does that make me creative?' (Boden, 2004, p.13).

This statement on its own, whilst marginally creative on the part of the speaker, has no practical or theoretical use, and can be discarded accordingly as gibberish. However, if the speaker were to somehow find the means with which to bring applicability to it – philosophical or otherwise – its value would be entirely transformed.

There are a number of common themes in each of these definitions, and by drawing them together, a core summary of creativity could be explained in the following way: creative behaviour centres around the process by which something new is deliberately and knowingly crafted from a foundation of existing stimuli. A previously undocumented phenomenon of nature such

as a unique land formation cannot be considered creative on nature's part, even though it has never been seen before. Likewise, accidental acts of innovation are not creative until, or unless, they are acknowledged by the creator or another individual.

This summary can be applied to any given act of creativity, but it also holds a problem. Creative behaviour, if understood as deliberate acts of innovation, has been witnessed across an extensive range of higher life forms, from the decorative nesting tendencies of the bowerbird (Marshall 1954), to area-specific dialects in cetaceans (Weilgart, 1997). The use of tools has been documented in the great apes (Parker, 1997), and proof of cultural transmission has been shown in numerous species (Heyes, 1996). Therefore, can human creativity be said to be unique at all, or is it merely a more refined, highly developed form of the problem-solving behaviour that can be seen regularly across the natural world?

How is creativity in humans unique?

Extensive research has been carried out in order to discover if human creativity does indeed feature characteristics that render it fundamentally unique. Peter Carruthers (2002) suggests that the answer lies in the behaviour of our young. In a behavioural phenomenon unique to the human species, human children – regardless of culture – engage in *pretensive* play. This is the act by which hypothetical scenarios are created from the imagination of the individual, who then proceeds to act within the parameters set by that scenario. Children express this in a multitude of ways, from imaginary friends to bestowing personalities upon inanimate objects. Whilst play behaviour is commonly seen among higher mammals, – kittens stalk imaginary prey, ungulates play at fleeing imaginary predators etc. – it is the scope and depth to which human juveniles are able to conjure wholly unique scenarios that sets our species apart. No other animal will engage in play in which it imagines it can fly, or that it is another animal, or that a pile of sand could be shaped to become a castle. When looking at other species, we see that play in juveniles invariably emulates adult behaviour, and exists in order to enable the development of certain skills and abilities which will later maximise the individual's chances of survival. If a kitten plays at stalking in order to become an effective hunter and a gazelle plays at fleeing in order to successfully escape predators, it is logical to assume human children are engaging in pretensive play in order to develop into creative adults. Therefore, according to this theory, human creativity is the act of supposing, of devising hypothetical scenarios and mentally laying out likely outcomes of those scenarios, making predictions and acting accordingly.

One theory suggests that human creativity is unique because of a phenomenon known as *cultural ratcheting* (Tomasello, Kruger and Ratner, 1993, sourced in Gabora, 2010). This is the process by which humans actively seek to build cumulatively on the existing ideas and inventions of others.

Acts of innovation within the animal kingdom are rarely built upon, and continue unchanged for millennia, but modern humans constantly change, alter and improve. Evidence of this can be seen in every man-made object ever to have existed, as any given invention can be traced back to an earlier source of inspiration. As stated by Gabora (2010, p.2): 'Human creativity is distinctive because of the adaptive and open-ended manner in which change accumulates. Inventions build on previous ones in ways that enhance their utility or aesthetic appeal, or make them applicable in different situations'.

Merlin Donald (1991) suggests that the creative distinction between man and ape is based around our cognitive functioning. Donald describes our early ape mentality as being in an 'episodic mode'. Episodic memory is a cognitive mode in which memories can be consciously accessed if triggered by cues. For example, upon sighting fire, a memory may be conjured up of heat. However, without any related stimuli, memories cannot be voluntarily accessed, which severely limits the individual's ability to consider scenarios other than those happening in the immediate present. As our ancestors evolved and our brains increased in size, we began to shift our cognitive functioning to a 'mimetic mode'. This psychological state allows the individual to consciously access memories at will, examining them in order to learn from them, and allowing them to make predictions on future scenarios as a result. In other words, early humans began to develop the ability to plan. What's more, with the additional advent of language, communication between individuals could trigger similar memories in others, and so ideas could start to be exchanged and built upon. Feist (2006) describes this as 'the ability to reflect on representations and think about thinking' (sourced from Gabora 2010, p.7). Heather Pringle (2013) shares a similar theory and describes how those engaging in a creative activity allow their minds to wander, using associative memory to come up with core concepts. This liberal thinking strategy enables innovative ideas to become possible and, upon reaching an idea, it can be analysed carefully and refined into a workable solution.

What we may conclude from these theories is that above all else, human creativity is fundamentally separate from animal creativity because of the extent to which humans are able to exert conscious control over their own ideas, and because of our natural inclination to change, improve and reinvent all we see around us. Random quantum leaps in ingenuity are found regularly in nature; it is part of evolution. But no other species actively seeks to initiate these leaps, nor does any other animal practise creativity as a skill.

It seems fairly self-evident that human creativity has expanded and deepened over the millennia because of its inevitable ability to improve quality of life and enhance survival. But why did humans make the sudden, seemingly spontaneous leap to creativity – a leap never made by any species before – and what causes existed to trigger it?

Why did humans become creative?

Steven Mithen (1996) is responsible for coining the phrase 'the creative big bang', a term commonly used to describe Man's sudden creative explosion. He notes that the 'big bang' occurred at around the same time humans began to use fully syntactic spoken language. Syntactic language – a communication system possessing a grammatically formulated structure – is a phenomenon that has yet to be expressed in any species other than Man, and this heightened form of communication would allow for the exchange of abstract and advanced ideas, rapidly increasing the potential for creative thinking and expansion on existing concepts. Prior to this time, language was used simply as a tool for social interaction, much in the same way modern chimpanzees and gorillas employ primitive gestural languages in order to convey basic information (Plooij, 1978). Mithen states that language reached its full potential to enhance creativity when, through random chance, it began to be used to describe things that were not directly related to social activities.

It is also worth noting that humans may have been the first animal to become so creative because we had already developed the body for it. As Gabora (1997) notes, complex ideas would be useless in most animals because of the lack of both the vocal apparatus necessary for descriptive language and the dexterity with which to implement their ideas. These disadvantages would render conscious associative thought a greater hindrance to survival than a help. Only in humans, a species possessing the ability to carry, grasp and shape objects, and with a rapidly developing capacity to express their ideas to others, would the development of advanced creativity aid survival.

Heather Pringle (2013) uses numerous sources to summarise her theories. She notes that many theorists have settled upon the explanation that a random genetic mutation created the quantum leap in Man's cognitive abilities, a theory which sits in accordance with Mithen's (1996) theory that a random mutation was responsible for creative progression through language. Pringle goes on, however, to suggest in light of more recent scientific evidence of older art and technology, that human creativity had actually sparked in humans far earlier in our evolutionary history than previously thought. As she describes, 'The evidence seems to indicate that our power of innovation did not burst into existence fully formed in our evolutionary history but rather gained steam over hundreds of thousands of years, fuelled by a complex mix of biological and social factors' (Pringle, 2013, p.40).

Pringle uses the words of Mark Thomas, who offers the theory that Man's creative explosion was simply the result of the steadily increasing population. As he describes, 'The larger a hunter-gatherer group is, the greater the chances are that one member will dream up an idea that could advance a technology. Moreover, individuals in large groups who frequently rubbed shoulders with neighbours had a better chance of learning a new

innovation than those in small, isolated groups. It's not how smart you are, it's how well connected you are' (Pringle, 2013, p.42). This theory is backed up by archaeological evidence which shows that the human populations in Africa and Europe – the first continents to experience the 'creative big bang' – both peaked at the same time. Thomas goes on to note that this theory also applies to the technological explosion of modern times – a rapid expansion in technological progression occurring simultaneously with the sudden explosion of the human population. In other words, this theory suggests that the evolution of human creativity – at least to a certain extent – is based around communication. From the invention of the written record to the modern era of the internet, in having the ability to easily share new ideas with one another, sometimes across vast distances, the potential for that idea to be picked up and expanded upon by someone else is dramatically increased.

Conclusion

Human creativity had a definite beginning and features several characteristics that separate it from any other behaviours found in nature. It is likely that all of the above theories are correct to an extent, and it may well be the case that humans became creative as a result of the culmination of increasing intelligence, more sophisticated methods of communication, and an ever-rising capacity to bring change to the environment. Those capable of the most effective problem-solving methods were more attractive as sexual partners, and resulting offspring would have expressed an ever-increasing inclination towards creative learning through play. In defining human creativity itself however, it is perhaps most important to note the words of Margaret Boden, in which creativity is defined not as the conception of something totally new, but on the improvement and expansion of existing concepts. For if this is the case, *to create* becomes synonymous with *to adapt*. Following this logic, *to improve* could easily be interchanged with *to evolve*. If, therefore, to be a creative human is to consciously seek *to create*, then could human creativity not be defined as the ability to consciously seek *to adapt*? And if to adapt is to improve, it could be concluded that human creativity is a form of *conscious evolution*.

It may therefore be summarised that creativity is to Man what speed is to the cheetah, size to the elephant, or mimicry to the song-bird. It is our unique angle of survival. It is based around our capacity to consciously build on the foundations of others and to adapt them to better suit our needs. Ultimately, Man could be concluded to be the most adaptable of all species, and it is for this reason that we have populated a larger geographical area than any other higher life form, for humans possess the unique ability to wilfully evolve, not only ourselves, but the world around us.

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Vicky Gosden is in her final year at the University of Gloucestershire and is completing a degree in landscape architecture. She originally trained to become a herdsman in the cattle industry before embarking on a career in fine art and illustration. She feels that landscape architecture combines her passion for working outdoors with her love of creativity and feels privileged to have found her calling in life. Vicky has always had a fascination with human psychology and evolution and enjoys following the latest theories on these subjects.

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WAS CAPABILITY BROWN ONE OF THE GREAT DESIGNERS OF THE WORLD?

Tom Turner

When Lancelot Brown died in 1783 he was head gardener to King George III and on friendly terms with a clutch of prime ministers and much of the nobility. By 1800 his reputation was mud-low.

Uvedale Price, a leading critic of Brown, was widely admired by the general public, by gardeners and by art critics, including John Ruskin. Price was particularly hard on the serpentine lakes which remain Brown's most dramatic contribution to the English landscape. Price wrote that 'Mr Brown grossly mistook his talent, for among all his tame productions, his pieces of made water are perhaps the most so'. [Price, U., *Essays on the Picturesque, as Compared with the Sublime and the Beautiful*, Volume 1, 1810, page 297, (printed by J Mawman)]. Price also declared that: 'In Mr Brown's naked canals nothing detains the eye a moment, and the two sharp extremities appear to cut into each other. If a near approach to mathematical exactness was a merit instead of a defect, the sweeps of Mr Brown's water would be admirable' [ibid page 310].

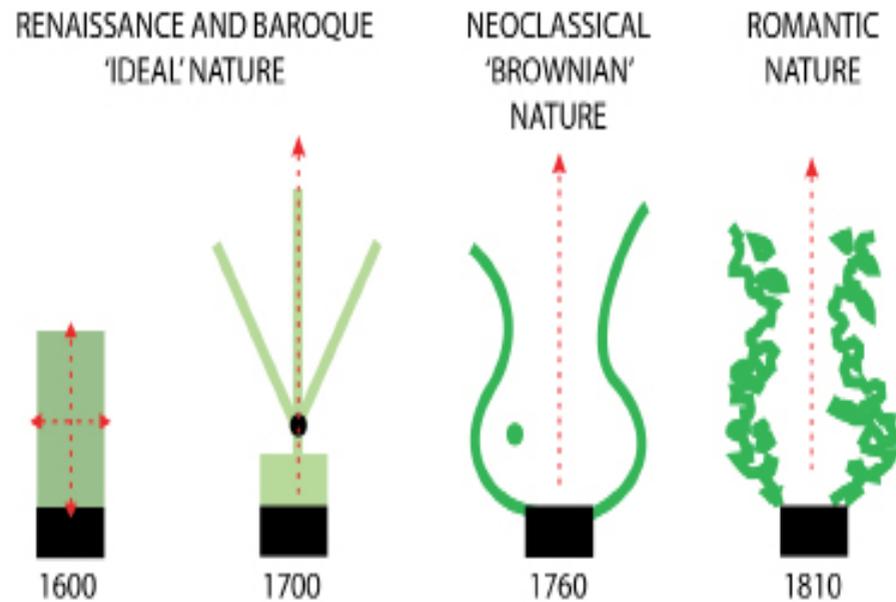
The most puzzling and interesting aspect of this line of criticism is that:

1. seventeenth century designers of what we now call 'formal gardens' believed they were 'imitating nature'
2. eighteenth century admirers of Brown praised him for 'imitating nature'
3. nineteenth century critics cursed Brown for *not* 'imitating nature' more successfully

The explanation for the confusing criticism is that the predominant meaning of the word 'nature' was evolving in line with philosophical, religious and scientific ideas. The best way of explaining the mid-eighteenth century conception of nature is as a mid-point between:

1. the medieval and renaissance idea that God created the visible world and did so using ideal forms (drawn from Plato's Theory of Forms). This led to a concentration on the use of circles, squares and straight lines in garden and landscape designs.
2. the nineteenth century idea that the visible world evolved by gradual changes over an endless period of time (as explained by Geikie, Darwin, Huxley and others). This led to a concentration of 'irregular' lines in garden and landscape designs.

As shown on the diagram, Lancelot Brown's design style, which can be described as 'Serpentine' or 'Neoclassical', was geometrically at a midpoint between the design styles of the seventeenth century and those of the early nineteenth century.



Thumbnail diagrams showing the geometrical evolution of garden design styles from 1600-1810 (adapted from the diagram on p. 263 of Turner, T., European gardens: history, philosophy and design, Routledge, 2011)

The Blue Plaque on the house Brown lived in at Hampton Court is also interesting. Henry Wise and Charles Bridgeman had lived there before him: it was an official residence for royal gardeners, with its name 'Wilderness House' deriving from its location near Hampton Court's 'Wilderness' (a seventeenth century name for an area of flowering shrubs and trees). It is an irony that when Brown was criticised it was for not reflecting 'wilderness' in his design geometry.

The Blue Plaque was unveiled in 2011 and carries the wording *Lancelot 'Capability' Brown 1716-1783 Landscape Architect lived here 1764-1783*. I am happy about this, though the term 'landscape architect' dates from 1828 and did not come into general use until the 1860s. Brown did not even call himself a 'landscape gardener'. His usual job title was 'place-maker' which, some might argue, is an more appropriate term for the landscape profession than 'landscape architect'. It has been popular with urban designers since the 1970s. But since Brown designed both landscapes and buildings, the

term 'landscape architect' suits him well. He also designed lakes and it is good for the landscape profession to emphasise its central role in composing water, landform and plants with buildings and paving.



The Blue Plaque, on Wilderness House at Hampton Court, describes Brown as a 'Landscape Architect'.

The distinction between garden designers and landscape architects turns on fact that landscape architects concentrate on public projects and public goods. Brown did little work on public projects but many of the places he designed are now open to the public under a range of access and ownership arrangements. His plan for The Backs in Cambridge is an example of what, given the chance, Brown might have done for open space in public and institutional ownership.

References: <http://www.landscapearchitecture.org.uk/lancelot-capability-brown-300th-anniversary-appraisal/> This blog post has links to references and videos which can be used to follow up the points made in this article.



Prior Park is my favourite Brownian design but without an accurate record of Brown's contribution, if any, one cannot be sure that Brown was, as Sir Geoffrey Jellicoe described him, one of the great designers in the world without a doubt.

Biographical Notes

Tom Turner is an English landscape architect, garden designer and garden historian who taught at the University of Greenwich in London. He is the author of books and articles on landscape and gardens and edits the Landscapearchitecture.org.uk and Gardenvisit.com websites. Educated at the Universities of St Andrews and Edinburgh, he studied landscape architecture under Frank Clark.

OBSERVE!

Karim S. Lachheb

I came across the work of Karim S. Lachheb when his good friend D'Anna Asher got in touch to suggest that his work may be of interest to members of the Ecolinguistics Association which I convene. She was right. Ecolinguistics explores the hidden messages in language, from consumerist messages that encourage people to buy unnecessary and ecologically damaging goods, to ecological messages in nature poetry that encourage people to respect the ecological systems that all life depends on. Lachheb's poetry conveys a deep message of interconnection – that humans are not separate from the natural world but an integral part of it and entirely dependent on it for our survival. His work juxtaposes the rampant consumerist society that threatens life on Earth, with traditional ecological wisdom that might, if we could hear it again, offer a path towards a more humane and sustainable society. There is a debate in ecolinguistics about whether ecologically minded poetry and artwork should be didactic or descriptive, abstract or concrete, specific or general, subtle or blatant. Lachheb's work transcends these distinctions in a glorious combination of all of them, giving it the power to appeal to a wide audience and make a difference to how they see the world around them.

Lachheb describes himself as 'a Moroccan-born American independent visual artist, poet engagé and storyteller. I grew up in Meknès, Morocco and am currently living as a nomad in Hawaii, where, disillusioned, bankrupt, homeless, and in the third act of my life, I sought refuge 10 years ago.' His international and varied life lends a richness of personal experience to his works, and lies behind the many contrasts that can be seen in his paintings and poems. Below are just one poem, *Observe!*, and one painting, *Beauty in the Beast*, that give a taste of his work. More can be read and viewed on the Ecolinguistics Association website (www.ecoling.net/articles and www.ecoling.net/visual).

Arran Stibbe, University of Gloucestershire

Observe!

*“The power of accurate observation
is commonly called cynicism
by those who have not got it”*

George Bernard Shaw

Observe with a keen eye and mind
that which like you is alive:
A human being, a frog, a bee, a leaf,
the roots of a tree, a bird in flight, a flower.

Observe so you can truly see
without passing judgments,
outside the comfort zone of prejudice,
narrow-mindedness and denial;

the psychological, electric fence
you erect to protect ignorance from reason,
mental progress and free thought;
in order to ward off much needed radical change!

In order to keep alive the trappings
of defunct traditions and laws:
Outdated history, the garbs of obscurantism,
superstition, wall street, and deceit.

Observe the way nature never lies
Listen well! The senses are countless,
and so are the spirits hidden in nature’s folds;
you may encounter a rock that has one, a tree, a nest,
you may want to change your ways and scare-crows!

*“Life is for learning! Shouted a man
I befriended once on a faraway shore:
“You must get to the water at once!
That is – If you want to learn how to swim!”*



Karim S. Lachheb: Beauty in the Beast

REVIEWS

Painting the Modern Garden: Monet to Matisse. Royal Academy of Arts, London, 30 January to 20 April 2016

Claude Monet is undoubtedly the star of this huge show – supported by a cast of some 40 other painters. Although the exhibition title signals a historical span bookended by Monet and Matisse, it is notable that the later giant of Modern art is represented by a paltry two paintings to Monet's 35 or so.

It is, nevertheless, quite fitting that this should be so: given the premise of the exhibition, that many pioneers of modern painting were enthusiastic gardeners, and engaged in a productive dialogue between the possibilities of horticulture and painting, Monet is in a league of his own. Not only did his garden at Giverny become the exclusive subject of his painting, but the garden itself was a work of art. Monet was no mere Sunday-gardener, he was nothing less than a landscape architect. Over a period of 40 years, from 1890, he developed and extended a country garden into a 6-acre composition of foliage and flowers; eventually he was able to employ six gardeners and divert a local river to create the famous water garden with its iconic Japanese bridge. Monet declared that his garden was his studio.

The period spanned by the exhibition – roughly 1864 to 1928 – was, art historically, one of extraordinary invention and experiment. Modernism was forged in wave after wave of avant-gardism: Impressionism, Post-Impressionism, Fauvism, Cubism, Futurism, Dada, Surrealism. Broadly, this is a story of escalating 'difficulty' in painting – difficulty for the viewer, that is, as what was seen in paintings became increasingly disconnected from what could be seen in the natural world and increasingly engaged with psychology, abstraction and provocation, to say nothing of revolutionary politics.

Understandably, there is little of that revolutionary ilk here – the section rather cornily labelled 'avant-gardeners' does present some of the major figures of that extraordinary period – Van Gogh, Klimt, Klee, Kandinsky, Nolde, Matisse – but, Nolde and Klimt aside, this fairly tame section feels like a distraction from the main business of supplying visual pleasure and, in particular, the pleasure of flowers.

The overriding aesthetic ethos of this exhibition is Impressionism. It is hard, now, to believe that Impressionism was ever shocking. Impressionism may have initially, and briefly, provoked a negative response – to a public and to critics weaned on polished, academic pictures, the brushy smudges of pure colour seemed unfinished and hard to 'read' – but, eventually, once the idea of a spontaneous response to the play of light on the natural world was grasped, the movement became, and remains, immensely popular. While more radical avant-gardism was intent on *épater les bourgeois* the

Impressionists forged an art that was bourgeois to its core, intent principally on visual pleasure. Impressionism combined here with gardening is a cast-iron crowd pleaser.

The exhibition is, indeed, rich in visual pleasure for both the connoisseurs of painting and of horticulture – though, perhaps, less reliably so for the latter. The joy of Impressionism is that the painters played fast and loose with the visual sensations offered by the sunlit scenes before them so that flowers become sensuous smears of red, orange, white and blue rather than botanically accurate representations.

Overall, I think there is more to be learned here about the development of modern painting than about the 'modern garden' of the title. Highlights include marvellously ethereal paintings by Berthe Morisot (*Woman and Child in a Meadow*, 1882) and Edouard Manet (*Young Woman among Flowers*, 1879); Max Liebermann's *Flowering Bushes by the Garden Shed*, 1928, rendered in thick, dense, glossy smears of paint; Joaquin Mir y Trinxet's intense veils of colour in *Garden of Mogoda*, 1915-19; Emil Nolde's slabs of deep blue, bright red, yellow and green forming a solid wall of blooms in *Flower Garden (O)*, 1922; and Gustav Klimt's cascade of flowers in *Cottage Garden*, 1905-07. Perhaps one of the oddest, yet most interesting, paintings is Henri Matisse's *The Rose Marble Table*, 1917: the salmony-pink, octagonal table, stands against a predominantly brown ground relieved only by some dark green foliage; on the table's perspectively-tilted surface is a small basket and three small green spheres of what might be fruit. The uncharacteristic gloom of this picture, by a typically joyful painter, is ascribed to then ongoing horrors of the Great War.

Finally, however, the show belongs to Monet. Three rooms are devoted to his paintings. In the first, situated in the middle of the exhibition, are paintings executed from around 1895 to 1905: some of his much reproduced paintings of the Japanese footbridge across the pond in his garden are so familiar that they seem like clichés; however, the paintings of water lilies and swathes of blossom are seductively subtle essays in colour and form. The other two rooms form the climax to the exhibition and are simply stunning. In the first of these *The Japanese Bridge* c1923-25 is a dense shimmer of deep, rich reds and greens dissolving the form of the bridge so that it is only just perceptible.

The final room is spectacular. On one side is the huge *Water Lilies* (after 1918) – a 4 metre-wide haze of pale yellow-greens within which occasional highlights of orange-red flowers glow. And opposite is the truly immense triptych, *Water Lilies (Agapanthus)*, c1915-26, altogether some 12 metres wide: this stands not just as the apotheosis of Monet's career as a painter but is pregnant with the then future possibilities of painting and abstraction. Magnificent.

Richard Salkeld, Senior Lecturer, School of Art & Design, University of Gloucestershire

Nature in Towns and Cities, David Goode, William Collins (New Naturalist), 2014, xii+418 pp., numerous illustrations; hardback £55, ISBN 9780007242399, paperback £35, ISBN 9780007242405

In 1937, Rose Bracher of Bristol University's botany department, published a small book as an aid for her students, and for urban schoolteachers. Interest in ecology was growing, and 'nature in cities' was beginning to be taken seriously. Curiously, three decades later, when I was an undergraduate in the same department, there was scarcely a mention of the subject of *Ecology in towns and classrooms*.

The botanical focus of Dr. Bracher's book is, of course, only a part of the story that is now taken much more seriously by a growing number of naturalists, academics – and environmental professionals, not least landscape architects. David Goode's is a recent contribution to this wider story.

Actually, his book was written to tell *two* stories: first, urban natural history from an ecological perspective; and second, the development of urban nature conservation and the use of an ecological understanding for the design of new urban landscapes.

For Goode, 'nature' is essentially living organisms, especially the bigger things that one can see without aids. They are free-living, and they may be native or exotic. Climate, geology and soils, and other environmental factors remain in the background, or have walk-on parts. The drama presented is essentially about old-fashioned flora and fauna.

The book is in three very roughly equal parts, after the introduction. The first is a review of (Britain's) urban habitats, with chapters on encapsulated countryside – from marshes to ancient woodland – and on canals, railways and cemeteries, urban commons and post-industrial habitats, new wetlands, and parks, squares, and gardens. The second part is about individual species: some birds as new urban colonisers, a motley selection of opportunist (various birds), badger and fox, and pigeons, sparrows and swifts. The third part is five chapters on urban nature conservation.

The first section is based on a rather vernacular classification of 'habitats'. It is clear, and is neatly illustrated (though the photos are printed small). It includes a review of wasteland in British cities, rather as ecologist Oliver Gilbert brought them to our attention. Credit is given to Gilbert for pioneering urban ecology, and I suggest that after Goode's cameos the more academic, and both fuller and deeper insights of Gilbert's *The ecology of urban habitats* (1989), are well worth reading. This ought then to be seen in a context such as Michael Hough's *Cities and natural process* (1995).

Part two is puzzling. The natural history material is fine: the story is full of details, nicely presented, and intriguing. Why has the house sparrow in some towns gone from outnumbering all other bird species to being a rarity? Why did herring gulls spread so quickly in the fifties and sixties? How do diet and behaviour of rural and urban badgers differ? We are given insight into several such enquiries. On the other hand, for instance, although butterflies get a few mentions, moths, and the bewildering variety of beetles, are kept almost invisible to us. And so are many lesser beings, as well as the various realms called fungi – other

Review

ECOLOGY IN TOWN AND CLASSROOM

By Rose Bracher, M.Sc, Ph.D. Bristol: J. W. Arrowsmith, Ltd., 1937. 2s. 6d. net.

In 1934 Dr. R. Bracher's useful little book on Field Studies in Ecology was published by J. W. Arrowsmith, Ltd. This has been suitably followed in May, 1937, by her *Ecology in Town and classroom* – a companion volume at the same moderate price, "containing observations and experiments especially suitable for the town worker." This handbook deals with those types which, "being in or near a town, come directly under human influence and, as such, may be termed artificial." Therefore, to those living in or near Bristol this book should be particularly helpful and interesting; for the number of flowering plants, ferns and mosses growing on our walls, banks, and in some of the Bristol streets is remarkable.

The three chapters on the Vegetation of the Street, Waste Ground, and the Vegetation of Coal Tips are apt and to the point. Chapter V, on Tidal River Banks, is particularly well done. Its sections on Physiographic, Edaphic and Biotic factors respectively are helpful and clear. Indeed, Miss Bracher has had practical experience of the ecology of no less than ten of the chief tidal rivers of England, extending from the Thames, Severn and Bristol Avon to the Mersey, Ribble, Lune, Humber and Ouse in the North. As is well known, she has made a special study of that little organism the flagellate *Euglena limosa*, which inhabits tidal mud and often gives it a bright green colour.

The chapter on Colonization and Succession is also important and helpful, and is clearly divided into sections, e.g., a "Street succession" starts with minute algae; stage 2 shows protonema and young plants of the moss *Bryum* and seedlings of the tiny green flowering plant *Sagina procumbens*; and stage 3 shows half a dozen flowering plants.

Among the excellent illustrations are some very clear and unusual ones of underground root-systems. Except for the full Index, the volume ends with a useful and ample bibliography, in which, of course, is found Mrs. Sandwith's important work on the Adventive Flora of the Port of Bristol.

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than lichens. Moreover, although vegetation features prominently in part 1, and individual species are discussed there, none of the part 2 species discussed is a *plant*. The book is virtually silent about organisms – bacteria, mites, slugs, worms, as well as a myriad moulds, for example – that one might say put in the hard work of running habitats and ecosystems (or landscapes if you like), including the unsung heroes, the ‘decomposer’ organisms.

I know these are not the most endearing of creatures; and that sewage beds and refuse tips, even garden compost heaps, are not the most enticing of urban habitats, but I think they and their denizens are worthy of mention. Without them, cities would be unbearable. As would the rest of the world....

The third section of the book – the second story – I found especially interesting, and it ought to be interesting and useful background for landscape architects. Goode describes how the urban nature conservation movement develops with and from ‘a new philosophy’, then discusses the action that took off in the nineteen-eighties. Following chapters look at Planning for nature, and Connecting with nature, and the book ends with New ecological landscapes.

In part, this is a succinct historical review. However... , Goode’s story seems to be relatively shallowly rooted into both the ecology and philosophy of what is meant by ‘urban’, ‘nature’, and ‘conservation’, and indeed into our psychological, emotional, subjective, relationship with our world. For context, see, as examples, Stephen Boyden’s *Western civilization in biological perspective* (1987, but I think still excellent), and the pioneering influence on landscape architects, Ian McHarg’s *Design with nature* (1969). These are not, of course, about natural history. Understanding and updating McHarg, Boyden, &c., and enjoying *Nature in towns and cities*, is a good start to accommodating a new philosophy. However, building that foundation has only recently begun; and it is not helpful that we are blinkered by baggage from the past.

And some sacrifice will be needed by conservationists: David Goode mentions a teacher from London’s famous William Curtis Ecological Park being devastated when she found children playing tennis with frogs. But she understood the children’s needs: when she discussed the episode with me, it was in terms of many of the visiting children taking a while to settle down, especially until they had ‘explored’ the frogs. After that, they were teachable. She regretted but tolerated the sacrifice of a few frogs, because they made the children more able to receive and understand what she wanted to teach them. Hopefully they would change. Rationality, science, and natural history, though necessary, are not sufficient for the long-lasting foundation of a new philosophy. As much as these, a new philosophy needs to be rooted in ethics and emotions, in sympathy, in human behaviour, and – for want of a better word – in love.

Martin Spray

A botanist and plant ecologist, Martin Spray taught in the Landscape Architecture Department of the University of Gloucestershire. He is now retired, is particularly interested in the world of nature conservation and environmentalism, but retains an interest in biology in general.

Sonic Possible Worlds: Hearing the Continuum of Sound, Salome Voegelin. New York: Bloomsbury, 2014; 207 pp, ISBN 9781623567040

This fascinating book is written by Salome Voegelin, a Reader in Sound Arts at the London College of Communication, and continues her extensive interest in the field of sound which in 2010 culminated in her *Listening to Noise and Silence: Towards a Philosophy of Sound Art*. As she notes, this latest book is a continuation of an exploration of the world that sound makes, an attack on the visual dominance of art, and an open examination of new possible sound worlds. As Ernst Gombrich reminds us, ‘there is no innocent eye. The eye comes always ancient to its work’¹, and this book attempts a counterbalance to the long dominant focus on vision in art.

Divided into five chapters, the book takes us on a journey from the landscape as sonic possible world through to listening to the inaudible. The book argues that sound is not just a different sensory world but in fact connects us to the dynamism, the agency, and the temporality of landscape in ways in which vision cannot. Written in a readable manner, and authoritatively argued, occasionally the sentence structure gets in the way of reader engagement, such as ‘the loss of these absolutes also requires that truth and meaning are produced through inhabiting rather than by reading: generating knowing rather than knowledge about the world and forcing on us an ethics of participation: the need to engage, to participate in composing the mores of the world from its possibilities and contingent actualities, that are the temporary negotiation of my life-world and yours, in the dark mobility of both our sounds’, on page 47.

Although the book is written for an art audience rather than a design one per se, its significance lies in two areas. Firstly, in bringing together through examples introduced into each chapter, Voegelin covers tremendous ground: from Angus Carlyle’s *Face as Territory* 2012, John Cage’s *The Future of Music: Credo* 1937, to Christina Kubisch’s *Electrical Walks* 2004. This compendium of eclectic precedents, in drawing in examples from such diverse art practices, reveals the broad resonance of sound and so by implication the potential that a fuller consideration of its presence might offer. Secondly in augmenting the sparse landscape of available books on sound and its potential for us in landscape architecture to address the silent aporia of sound’s absence. Not since Juhani Pallasmaa’s *Eyes of the Skin*² has such a potent reminder of sound’s potential to influence our landscape world been so carefully argued.

Dr. David Buck, Academic Course Leader, Postgraduate Landscape Architecture, University of Gloucestershire.

Notes

1 Gombrich, Ernst, *Art and Illusion* (New York: Pantheon Books, 1960), 297-298.

2 Pallasmaa, Juhani, *The Eyes of the Skin* (Chichester: Wiley-Academy, 2005).

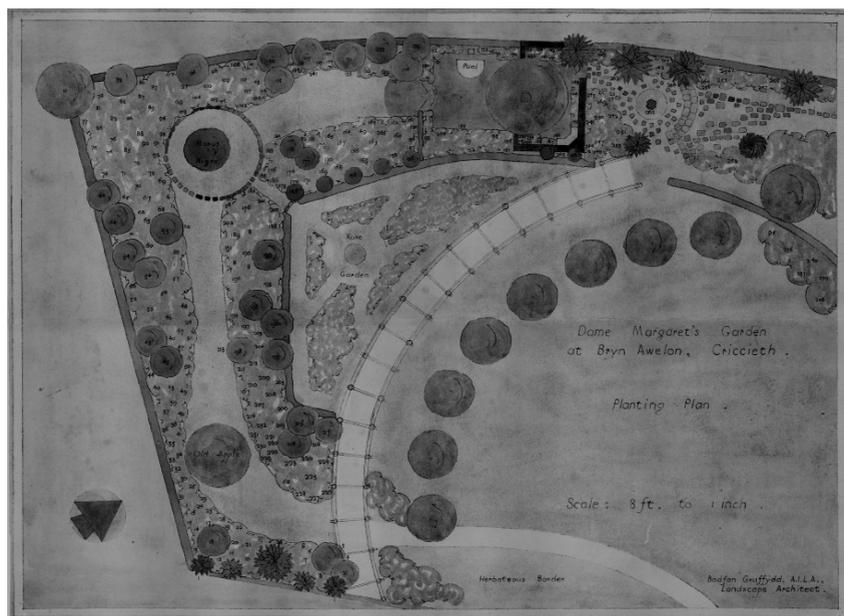
OBITUARIES

The past decade or so has seen the deaths of a number of influential people associated with the Cheltenham landscape architecture course. Bodfan Gruffydd, the founder, died in 2004 at the grand age of 94. More recently Gordon Hyden and John Simpson who made significant contributions to the course both passed away in 2013. We have also lost some former students. This section is intended as a memorial to all these.

BODFAN GRUFFYDD 1910-2004

John St Bodfan Gruffydd was born at Plas Eryr in Snowdonia, the son of John St Bodfan Griffith, a teacher from Bangor. By the time he joined the Institute of Landscape Architects in 1942, the spelling of his name had changed to Gruffydd. In 1945 he was asked by former prime minister David Lloyd George to design a garden in memory of Dame Margaret Lloyd George (see below) and so commenced a design career in landscape architecture, which continued some 55 years.

Working in conjunction with Clough Williams-Ellis and Colwyn Foulkes, Bodfan was much involved with local Welsh landscapes, gardens and municipal car park plantings; he was also much concerned with the visual impact of Forestry Commission conifer proposals for north Wales. Other commissions included landscape consultancy at Crawley and Harlow new towns and in the early 1960s for the proposed Ebbw Vale civic centre.



In 1961 he played his part in establishing landscape architecture education, both nationally and specifically at Cheltenham, the first undergraduate course in the country. In 1962 Bodfan obtained a two-year travel fellowship from Dumbarton Oaks, Harvard, USA, and this gave him first-hand evidence of landscape architecture courses at US schools which he hoped would be of value at home. Subsequently he became president of the Institute in 1969 and in his inaugural speech he was able to state 'We have established the profession of landscape architecture, recognised by our sister professions and by governments ... Our aim is to establish all training of the profession in full-time schools'.

In the 1970s he moved his practice to Malvern maintaining a small 'practice office' within the landscape school at Cheltenham, where students could experience working conditions within a professional atmosphere. His consultancy handled a wide range of projects such as: the Rivers Thames and Mole Scheme which involved designing several miles of new and improved waterway in an urban fringe; historic parks at Orwell and Shrublands in Suffolk and Stonor in Oxfordshire; and he was able to continue his life-long interest in horticulture with the design of Robinson College, Cambridge, between 1984 and 1995. He was an expert witness at many enquiries and his last appearance was at a quarry inquiry in his beloved Snowdonia in 1996 – a fitting conclusion to a career which began there.

GORDON HYDEN 1936-2013

Gordon Hyden moved to the Gloucestershire College of Art and Design at Pittville in Cheltenham in 1971 from his post as chief landscape architect to the City of Birmingham Architect's Department where he, for a time, ran the largest landscape section in the country. His appointment in Cheltenham was to manage the college practice office, but, within a short time the college persuaded Gordon to take on additionally the post of head of the landscape architecture course.

This notion of a full-time course had been advanced in 1961 by Bodfan Gruffydd, but it was Gordon, with his clear ideas on the need for a soundly-based vocational education for landscape architecture professionals, who launched the course on what was to be its successful path.

A new era had begun. Gordon set about assembling a substantial team of landscape designers and subject specialists to tutor the essential aspects of the course. In addition, Gordon, in his role as a founder member of the Midland Chapter of what was then the Institute of Landscape Architects, was well placed to negotiate the exemption of the course from the external examination system. This achievement was followed by CNAA recognition at BA ordinary degree level then eventually, in 1984, at honours degree level. The rating of 'excellence' on the course by Her Majesty's Inspectorate in 1989 was the result of a carefully evolved teaching package and this can be seen as the crowning achievement of Gordon's academic leadership.

Over the years, Gordon also took a keen interest in European landscape work and under his guidance, the annual foreign study tour became an integral component of the students' wider education, with relationships being established with practices, public offices and educational institutions all over Europe, and also America. This interest also extended to his prominent role in the European Landscape Education Federation and to his successful efforts in cementing relationships with the landscape architecture course in the Horticultural University of Budapest. In recognition of this, they bestowed on him the honour of Doctor Emeritus in 1991.

Gordon then retired from the College but he continued to be involved in landscape architecture education, first as a visiting lecturer at the University of Central England for a few years and then assisting with CPD courses organised through the Landscape Institute. The landscape architecture course continues to this day in the University of Gloucestershire and while the current course properly addresses 21st century concerns, its national reputation as a design course producing flexible and innovative designers can be traced back to the foundations laid in the 1970s and 80s when Gordon was at the helm. It is thanks to his vision and his skilful management that a high standard was set for landscape architecture education both in Cheltenham and the wider profession.

JOHN SIMPSON 1929-2013

John was born into a family of Yorkshire-Scots and Fenmen who had worked the land for generations. From an early age he developed a deep understanding of the physical world and an ability to read the underlying structure and topography. It was no surprise therefore that he originally trained and qualified as a civil engineer and it was natural for him to be drawn to the hydrological side of the profession, spending a substantial time working on flood prevention and general restoration of the Great Ouse in Cambridgeshire and Norfolk.

In 1965 he was appointed to the Faculty of Environmental Studies of the Gloucestershire College of Art and Design which was then located in the Pittville Pump Room in Cheltenham and he brought his wide-ranging expertise in hydrology, construction and surveying skills to the students of landscape architecture as well as aspects of planning law. John eventually took on the role of running the landscape course, effectively as head of school, ensuring the four-year full-time course maintained its cohesion and necessary exemption from the intermediate examination of the Institute of Landscape Architects.

During the 1970s the course continued to expand and gained full Landscape Institute recognition. John was then a key member within a team of tutors and he maintained his subject currency through his regular consultancy work often with Bodfan Gruffydd's practice office and mostly related to land surveying, reservoir design, drainage and planning enquiries. The course

finally achieved CNAAB degree status in 1984 which heralded a decade of curricular consolidation and international exchanges. Links with universities in Canada, Hungary and USA were established and John helped forge a special relationship in 1984 with Professor Michael Hodges of the University of Michigan Landscape Faculty, who for three years accompanied students for a term in our institution as well as accepting our staff and students in return visits.

John Simpson retired in 1989 – the year that Her Majesty's Inspectorate awarded an 'excellent rating' on the landscape course: a fitting conclusion to John's contribution through the years but arguably, most of all, John will be remembered for the important work of admissions tutor to the course. Over a quarter of a century he was individually responsible for the processing of hundreds of applications and interviews of prospective students. In no small measure was the course in debt to John for this essential but barely acknowledged non-computerised administrative task, and many students no doubt, if asked, would declare that their choice for landscape architecture in Cheltenham was influenced by John's warm and personal welcome.

John was a long-serving member of the Institute of Civil Engineers (56 years) and in retirement he continued to be actively interested in the projects on which he had worked, visiting old sites regularly, including Robinson's Bin Brook, Cambridge, to check that water levels were not becoming dangerously high. As recently as 2011 and well into his 80s John volunteered his help to determine the flooding consequences of a proposed gravel extraction in the Cotswolds and was seen hiking around the site with a dumpy level measuring heights and taking water-table readings down bore-holes.

In November 2012 a special recognition award was conferred on John for his unique contribution to the landscape architecture course, both in his working career described above and also in his continued support most visibly through his establishment of the annual Bodfan Gruffydd prizes for outstanding student designs. An annual memorial lecture has been set up in John's honour, generously sponsored by his daughter, and to date speakers have included Sue Illman PPLI and Carme Fiol of the Arriola-Fiol practice in Barcelona.

JOHN THOMPSON 1941-2015

The former city landscape architect of Oxford, John was better known as the 'tree man' of Oxford, thanks to his love of trees and plants from an early age and for being the driving force in setting up the Forest of Oxford programme which is claimed to have planted over 10,000 trees in the city.

John studied landscape architecture at the Gloucestershire College of Art and Design in Cheltenham and began his career with Frederick Gibberd Architects, where he helped to design Harlow new town. He went on to work

for Gordon Patterson, an eminent landscape architect, and was involved in a number of high profile projects, including Didcot Power Station. He played a leading role in the creation of Grandpont Nature Park in South Oxford, transforming polluted land on the site of the city's old gasworks.

After retiring from the city council aged 60, he was involved in many more community landscape projects, in particular with the Woodland Trust and Oxford Preservation Trust. His avid tree planting continued most recently on Boars Hill, in Cutteslowe, and in his home village of Wolvercote. An active member of the Garden History Society and the Landscape Institute, he contributed regularly to their journals.

YVONNE YOUNG 1925-2015

Born in Lions River, Natal, South Africa, Yvonne had a carefree rural upbringing. At school she excelled in botany and drawing and had aspirations to be a botanist but settled on architecture. After graduation from the University of Witwatersrand she settled in Durban to begin her architectural career. She married John Young in 1954 and following the birth of two children they decided to emigrate, finally settling in London in the early 1960s.

In 1963 she began working for RMJM architects on the masterplan for the University of York campus, where her interest in landscape was ignited, setting up an ambition to study landscape architecture. Finally, having waited until her youngest daughter finished studying at university, Yvonne took early retirement from her then job at Hertfordshire County Council and enrolled as an undergraduate student at the Gloucestershire College of Art and Design to study landscape architecture. Readily accepted by the younger students, she relished the challenge of the course. Successfully completing both the BA and post-graduate diploma, Yvonne embarked on a new career, working briefly for Mary Mitchell in Birmingham, before joining Dyer Associates in Cheltenham.

Moving to the CEGB and working in association with Peter Youngman PPILA on a number of projects, she finally took on the role of a full-time landscape architect. In business, few would agree to join a fledgling landscape practice at the age of 62, but she did so in 1987 forming Illman Young Landscape Design with Sue Illman, also a former student from the Cheltenham course. This was to be both a successful partnership and friendship.

Yvonne could also be a surprisingly intrepid individual both in her personal and business life, travelling to Peru in the early 1990s and on the Orient Express from Samarkand to Tashkent some years later. Retirement held little appeal for Yvonne, but she was encouraged to wind down a little in her early 70s by studying the historic landscape conservation course at the Architectural Association, and gaining a further post-graduate diploma: an interesting challenge for a modernist architect to undertake. However,

this stood her in good stead in her role as a member of the Cheltenham Architecture Panel and a committee member of the Gloucestershire Gardens and Landscape Trust.



GORDON SINCLAIR 1963-2009

Previous to enrolling on the landscape architecture conversion course at the University of Gloucestershire, Gordon worked as a freelance architectural model-maker, designer and photographer. He first developed his artistic abilities on a foundation course at Somerset College of Arts, progressing to 3D spatial design at Berkshire College of Art and Design. After a period of work, he completed a degree at Anglia Polytechnic University showing a fine awareness of aesthetic values and historical context as well as much enthusiasm and creativity for experimental sculpture and 3D design.

Of particular note, however, was his excellent craft abilities and these he developed further in his model-making for the landscape course at Cheltenham. The model he produced for the landscape engineering module was particularly well crafted (see above). It shows his design for a retirement home development on a former colliery site in the Forest of Dean. For his place and meaning module, he proposed, poignantly anticipatory, a 'widows'

garden in Mazar, Afghanistan, to encourage those bereaved as a result of the war to develop practical skills for sustainable food production in a dedicated garden whose form derived from Arabic philosophy and astronomy.

Gordon was a highly committed individual who set himself high standards despite his health problems, and he was awarded a post-graduate diploma following his premature death.

JOANNA YEATES 1985-2010

As a student on the postgraduate course in landscape architecture, Jo only studied with us for a year but, in that time, she made a strong and lasting impression on staff and students alike with the quality and depth of thinking in her work, setting standards in her research, her written work and in her graphic presentations that her fellow students admired and aspired to.

Jo had worked in practice in between studies and continued to work at BDP in Bristol whilst studying in Cheltenham full-time. Her design flair and professional experience showed immediately, especially in her large scale landscape planning work which was already at such a high professional standard that any practice would be proud to put their name to it. Jo was one of those students who you can tell would be destined for great things and it almost goes without saying that she graduated at the end of her studies in July 2010 with a distinction.

Her premature death is a huge loss to all; she was very well liked and admired by her peers, she was a very gifted student and a high achiever in all she did. Many of our students have contacted us to say how much of an inspiration she was to them. The university is honoured to be able to remember Jo through the giving of an annual landscape design prize in her name sponsored by BDP and hosted by the university as a lasting tribute.

PIERS SIMON 1972-2005

A passion for nature and a keen artistic streak combined to produce an imaginative and successful garden designer. Qualifying from the Cheltenham landscape architecture course in 1993 he went on to work extensively in Britain and America. Although he lived near his parents' farm in Yeovil, Somerset, he was conspicuous by his frequent absences, often competing in triathlons or just travelling abroad. He cycled around India to raise money for deaf children. January 2005 found him on holiday on Phi-Phi Don island, Thailand, when the tsunami struck which wreaked so much damage and caused countless fatalities, including his, in its wake. A promising career cut short.

These obituaries have been condensed from notes from Sue Illman, David Booth, Catherine Simpson, the Oxford Times, the Guardian, Robert Moore.

INFORMATION FOR CONTRIBUTORS

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