

Bringing the outside inside: How can designers ensure that we work alongside
nature rather than isolated from it?

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Evaluating our estranged relationship with nature, our partnership with the natural world is somewhat a fragile one. This essay will look at our relationship with nature, the impact of space within the home and workplace and eventually, how it might be possible to reintroduce and interact with nature within areas and spaces in our world which were previously too harsh or overlooked using clever design. Therefore, design as a discipline must ensure that designers work alongside nature rather than in isolation from it. It can be determined that the planet should be a key stakeholder in how design is undertaken (Willard, 2019). This has a particular impact on interior design and how the home and workplaces link to biophilia. These are key areas of discussion throughout this independent inquiry. This piece of writing has been structured as an extended essay and therefore does not compartmentalise into chapters as such, looking at theorists such as Henri Lefebvre, Plato and Stephen R. Kellert.

‘Make a house a home’ is a common phrase used frequently within present day society to describe the act of making the house feel more comfortable and personal. It is important that it is specified that this writing comes from research based on western homes and culture. The terms ‘House’ and ‘Home’ both have similar meaning when used to describe the place which you reside, but with subtle difference. A house can be defined as ‘a building that people, usually one family, live in’ (Cambridge English Dictionary, 2019). Home can be defined as ‘someone's or something's place of origin, or the place where a person feels they belong’ (Cambridge English Dictionary, 2019). The Romans also referred to the home as ‘mansio’ meaning place of rest (2017, p.xxi). It can be

deducted from these two definitions that 'home' is very much more to do with a personal feeling, connected emotions, or a spirit of place. Whereas, a house is associated with the physical habitat which we live in; the buildings and foundations. Alison Blunt and Robyn Dowling discuss in their book 'home', the notion of home being a 'sense' and what it means to have a 'sense of home' (2006, p.1). Blunt and Dowling also broach the idea of a need to 'establish' a home. Establish can be defined as 'to cause something or someone to be accepted in or familiar with a place, position, etc' This definition of establish, found in the Cambridge English dictionary, was of particular interest because of its use of words such as 'accepted' and 'familiar'. Both of these words have a lot to do with this idea of 'belonging' which crops up time and time again within my reading as a very essential part of what makes a house a home. When the feelings of 'accepted', 'familiar' and 'belonging' are no longer felt within the home, feelings of detachment and an urge to pursue a new home might occur. Often in the complex and modern world which we live in, people may associate negative connotations to their home and hence immigration occurs all over the world in search of a safer home. 'These international movements are also processes of establishing home, as senses of belonging and identity move over space and are created in new places' (2006, p2). Blunt and Dowling have suggested by this that the notion of home can be connected to and even built on the idea of 'identity', and that home is not a fixed location or related to where you come from, but rather where you feel most welcome and comfortable. It is possible to create a 'home' wherever you are, provided that a part of your identity is present within the location.

Personal identity is something which plays an essential part in influencing the decoration of and the types of objects which people choose to surround themselves with. Identity can be defined as who someone wants to express themselves as, what makes them individual and differing from others around them (Cambridge English Dictionary). Particularly when thinking about 'identity', it is often associated with the individual, and particularly their personal interests and traits. John Perry discusses how personal identity may be connected to an individual's memories and experiences; these are the things which shape us into who we influence ourselves to become (1975). Personal identity then cannot be determined by object and our surroundings, it comes from our personalities and is portrayed by our interior as oppose to our exterior. However, personal identity can be influential in our choosing of and taste in the things which we choose to surround ourselves with. Mihaly Csikszentmihalyi and Eugene Rochberg-Halton discuss the relationship between person and object (1981), addressing that in order to bring together person and object, an element of self-awareness must be present. Self-awareness can be defined as 'good knowledge and judgement about yourself' (Cambridge English Dictionary), so it can be determined that in order to have a sense of personal identity you must also have an element of self-awareness in order to make conscious decisions regarding the types of object present in the home. Self-awareness and particularly personal identity are traits which are essential for designers to be in touch with, this is what makes a designer unique. Encouraging a good relationship with a designer's personal identity will be key to growing a connection with the nature which we are naturally drawn to. However, personal identity can lend itself to create very close relationships with particular items or objects which have strong bonds to

the past of the individual, thus could actually have detrimental emotional effects on the owner should something happen to the object.

Often, we develop emotional attachment to many of the things which we may choose to allocate space to within our homes. Emotional attachment is something which may stem from self-awareness, personal identity and also to the notion of home.

Attachment is about having a strong connection or deep love for something or someone (Cambridge English Dictionary, 2019). Thus, attachment can be viewed with regards to relationships with objects within the home and how we relate to these items. A study carried out by Mihaly Csikszentmihalyi and Eugene Rochberg-Halton (1981, p4), showed 15% of people categorised their feelings of attachment towards an object as being related to memories which they have experienced involving said item, whereas the smallest percentage of people at 5% categorised that their feelings of attachment were purely for utilitarian reasons. Therefore, it can be established that more often than not, human beings create emotional attachments to the objects within their homes due to the memories and meanings which the object might house. This idea of filling a house with objects which provide particular memories and feelings links into the very meaning of home itself and so it can be established that a home simply cannot exist without including objects with which the tenant's feelings of 'belonging' and 'identity' are embodied. These characteristics all contribute to the idea of 'making a house a home' with the notion of implementing one's own personality or design tastes into a space which is essentially a blank canvas.

A large amount of consideration, designing and thought goes into how a home is presented and created. Fascination in and admiration of home decoration and interiors is something which can be demonstrated through entire university degrees and television programmes such as *Grand Designs* (1999), which focus specifically on the construction and interior spaces of houses. Interestingly, Marx suggests that humans are the only animals to consider the design of their houses before they are constructed, he goes on to say 'what distinguishes the worst architect from the best of bees is that the architect builds the cell in his mind before he constructs it in wax.' (2015, p93). This suggests that the outcome of such design already existed 'ideally' before it was conceived; that we are in touch with the materials that we use and how we are able to change and manipulate them to create the forms which had been imagined by a designer. Our ability to mimic the mind's image is unique. Christian Fuchs discusses Marx's quote and says of humans 'They are not just anticipatory, but also moral beings that are capable of drawing a distinction between what they find desirable and undesirable, good and bad' (2015, p93). Within this quote Fuchs uses the word 'anticipatory' which is a key part of what is going on here, our ability to foresee what our construction will eventually look like is a level of planning and anticipation which may not be found in other species. Also looking at Fuchs' quote and going back to the idea of home being about emotion and 'sense'; an important part of how homes are put together and what they consist of all comes down to what we do and do not appreciate, things which we love or hate and how they look and make us feel within our personal space. Fuchs says 'creativity, self-consciousness, empathy, and morality are crucial forms of the human constitution that also shape the work process.' (2015, p93). It is part of our very being to question, challenge and

manipulate the landscape which we live in to heighten our feelings and connections to the area and build our homes as though they are galleries filled with the things which please us, representations of the current lives which we lead.

The anticipation and planning which can be demonstrated by humans is something which can be linked to design thinking. Design thinking can be defined as

‘a design methodology that provides a solution-based approach to solving problems. It’s extremely useful in tackling complex problems that are ill-defined or unknown, by understanding the human needs involved, by re-framing the problem in human-centric ways, by creating many ideas in brainstorming sessions, and by adopting a hands-on approach in prototyping and testing’ (Dam and Siang, 2019).

This way of thinking returns us to the methodology which our ancestors would have adopted when it came to discovering new materials and responding to our requirements as a developing species. Particularly with regards to the notion of a ‘hands on approach’ to working, Vilem flusser suggests that we as humans now belong to the term ‘homo faber’, meaning that we ‘belong to those kinds of anthropoids who manufacture something’ (2013, p.43), which as previously discussed is the very origin of human inquisitiveness and creativity. This can be linked to the writing of Plato who says,

‘We have the opportunity to gather together, indiscriminately, the materials from which we shall select those which are suitable for the proposed construction and what is more, to make that selection at our leisure. Let us take it, therefore, that we are not now people building as a matter of

necessity, but people with all the time in the world who are still partly putting materials on one side for future use, and partly engaged in the construction' (2016, p.331).

Plato discusses the fact that potentially this level of designing is somewhat unnecessary from a basic human needs perspective and that as a species we have developed over time to be this way. Our developed thinking and increasing skill levels have allowed us to make conscious decisions about our use of materials and how some may be suitable for future projects and endeavours. Plato expresses that we are no longer building for 'necessity'. Much of the world has all the basic amenities which are required of a shelter; we are now thinking of comfort and convenience, selecting materials which we would like to use rather than the ones which are readily available to us. This expansion of our knowledge when it comes to variety of materials is partly what has allowed the design world to grow at the rate and popularity which it has and may also contribute to its downfall and reputation as a wasteful industry.

One way to combat this level of waste which we find polluting our world today is to look to nature's systems and methods for answers, this natural inspiration within the design world is known as biophilic design. Biophilia within the home is a design feature of increasing popularity, it stretches across all genders, ages, personalities and cultures as something which all humans seem to be drawn to, no matter where we live or how we have grown up. Biophilia can be defined as 'love of living things and nature, which some people believe humans are born with' (Cambridge English dictionary, 2019). There are interesting and meaningful links which explain why

humans are born with this innate tendency to be drawn to living things and nature. Stephen R. Kellert says, 'The human need for nature is linked not just to the material exploration of the environment but also to the influence of the natural world on our emotional, cognitive, aesthetic and even spiritual development' (1995, p.43). As living beings on this planet, nature is something which surrounds us in all aspects of our lives, keeps the earth in balance and provides for us everything which we may need to develop and continue to flourish. It is our connection to the natural world which has allowed us to function as we do, the finite resources and spaces which are available to us are diminishing at rates which are unsustainable for human survival and therefore it is more important now than ever that we look to Biophilic design for answers. Kellert discusses the material exploration of the environment (1995), which links to the suggestion that creativity is one of the 'crucial forms of the human constitution'. These ideas suggest that the human attraction to nature and the notion of biophilia might be down to the deep interest in how the readily available materials we have at our fingertips can be used to construct or manipulate new objects into being within our environment. This thinking could be implemented in the design world by reintroducing natural processes and imagery such as natural dying or weaving of naturally occurring materials to explore our creativity as it once was, exploring our natural environment and all the natural materials and textures which it has to offer, as opposed to exploiting these natural resources for the likes of mass produce and large profit margins, at the risk of losing our human connection to the natural world altogether.

Modern human life is ill equipped to cater for the needs that the natural world requires of us. As we have developed further as a species driven by the need for money, greed for wealth has outweighed our love of the natural world. The wellbeing of nature has taken the brunt of this progression. Stephen Buchmann says, 'Humans have an inborn affinity for nature that goes beyond the tangible benefits we derive from the microbes, plants, and animals of the biomes in which we live' (2016, p.287). However, he then goes on to say 'biophilic affinities can be diminished, or lost, when natural areas, or our access to them, are reduced or eliminated' (2016, p.287). Interestingly, this statement contradicts the idea of biophilic affinity being an innate tendency and rather more reliant on the surroundings of the individual. This suggests that actually, biophilic affinity can only be present if nature is something which frequents your day to day life in some form. Perhaps then, biophilic tendencies would lay dormant within us if some form of connection to the natural world is not present. Presence of natural areas, wildlife and fauna is essential to the wellbeing of human beings. It is the key to preservation of our biophilic affinities, and even awakening these connections in people who may feel they have become disconnected or disinterested in our natural environment.

Design in particular is a human skill which is completely imperative to building the bridge between our industrialised world and the nature with which it has overwhelmed. Design and nature work harmoniously as a partnership, one which can be demonstrated across all areas of life. Previously broached was the subject of Biophilic design and how it may be used to implement change. One form of biophilic design is biomimicry, which is something that can be traced back to the beginning of

our existence as it becomes apparent that human fascination with nature has led us to mimic its natural processes. Biomimicry can be defined as ‘an approach to innovation that seeks sustainable solutions to human challenges by emulating nature’s time-tested patterns and strategies’ (Biomimicry Institute, 2019). Biomimicry is a time-tested approach to design engineering which ‘encourages scientists, inventors and ordinary people to study nature and use its solutions to solve our problems’ (Lee and Thompson, 2011). The natural world works in fine harmony with all processes and reactions happening for specific reasons which benefit its various inhabitants in some form throughout their lifecycle. Our environments ability to regenerate and rebuild itself after catastrophe is identifiable in our own concrete world, but this is not without even greater cost to the environment and generation of many new non-renewable products and materials. The huge gap between our understanding of the environment and the way in which we actually relate to and work beside it are worlds apart from each other and this should be at the forefront of design thinking. One of the most common examples of biomimicry is Velcro, a design inspired by the way that cockleburs can cling to clothing. George de mestral observed one of the cockleburs under a microscope and used its unique formation to create what we know today.

One of the notions which *Design and Nature: A Partnership* (Fletcher, St. Pierre and Tham, 2019) looks at is the idea of lying, sitting, standing, and walking. It is interesting that this particular book has chosen structure itself as a journey, it is a journey through our lives as human beings, from a lying baby, up to a walking adult. Particularly in the beginning of our quest to understand the world and how we can

work more harmoniously with it, the idea of lying is somewhat a metaphor for how we should be altering our relationship. 'in the lying down posture, we can literally have more of our body in contact with the earth than any other posture. We can contact earthiness as other beings do, and perhaps come to know ourselves as knitted to this earth' (2019, p.1). Our modern lives have become detached from the planet beneath our feet and as such any form of 'knitting' connection we once had with the earth has since become unravelled, frayed and disconnected. In particular the idea of knitting is something which seems a fitting metaphor which feeds the point of this essay. Knit can be defined as 'To join together' (Cambridge English Dictionary, 2019), which we can put into context when it comes to design and how we might be able to join together design with the environment around us, however knitting is also an extremely sustainable and clean process which does not require electricity or fuel to generate, a good example of a sustainable method of production. An example of where knitting can be used on a large and beneficial scale is during the war where women would collaborate in knitting circles to produce garments for troops. 'Due to the short supply of raw materials underused garments were often unpicked and re-knitted to produce socks, balaclavas, sweaters and gloves' (2012, p.173). I find this to be a really relevant example of where it is possible to be able to unite and embrace a more sustainable workforce, whilst the idea of a knitting 'circle' suggests the idea of a more social and welcoming environment to work within, with an undercurrent of teamwork and togetherness. The idea of being knitted to the earth, or knitting ourselves to the earth is a verb, a doing word, and can be determined as making and part of a making process. The notion of knitting encourages us to think of something which is growing, expanding as it is being made, but also the idea of

linking everything together, weaving and connecting. This thought process can be mimicked by the natural world and how everything within the natural world is so finely and carefully linked and woven together.

In order to knit or weave something, you must start with a strand, or line of thread. Tim Ingold addresses how humans and lines can relate to each other. 'As walking, talking and gesticulating creatures, human beings generate lines wherever they go' (2016, p.1). This can be seen as a metaphor which links to the idea of knitting as Ingold suggests that humans create these lines wherever we go, if you were to visually see these lines as we all walk in and amongst each other and go about our lives then it would look as though we were knitting each other together. Likewise, this idea of humans producing lines can be implemented into the natural world. When visualised, a human knitted blanket would perhaps be a very close-knit blanket, almost angry and tight, created quickly surely with mistakes. Whereas, a blanket knitted by nature would be loopy and slowly produced, yet carefully woven, its links are more carefully considered and cleverly composed. Our fast paced world can be held accountable in some capacity for the careless and vigorous way in which we lead our lives and treat the planet with which we live on, and therefore it can be deducted that for change to come about, it may happen most noticeably within the workplace and changing our attitude of convenience and productivity, to one which is more sensitive and considered.

To determine where change can be introduced, and where biophilia can be most beneficial within the workplace, it is important to look at the very prospect of work

itself; something which in our current climate is essential for survival. Work can be defined as 'an activity, such as a job, that a person uses physical or mental effort to do, usually for money' (Cambridge English Dictionary, 2019). 'Work' can fall into many different categories such as studying, homework, a formal job, or even related to how things themselves work. This definition of work suggests that in order to be classed as working, mental and or physical effort must be required of it. Mental effort in particular can be the cause of health-related issues if not properly managed and it is imperative to productivity. Management of good mental health within the workplace is considered to be a statutory right (acas.org.uk, 2019), and this is something at the forefront of company responsibility. In particular it can be found that mental health in the workplace can be improved by the surroundings of and the layout of the workers space. Mental effort also consumes a lot of energy which we would otherwise implement into other areas of our lives, such as spending time outdoors, tending to hobbies or embracing other ventures and it is here which I feel it can be identified that convenience has been introduced to the personalities of the workforce as an entirety.

Examples of biophilia which feature within the office space are often artificial. Offices tend to be hard and practical places based within built up areas with little to no natural surroundings. It is interesting then, and rather fitting, that they should pick such harsh and brutal replicas of plants to fill them with. This attraction to faux plants within the office space is synonymous with the hard and relentless surroundings with which they are often situated. Modern day office spaces have introduced biophilia in various forms from indoor plants, depiction of flora through the medium of pattern or

wall art and of course artificial plants. Perhaps then, a key reason for the attraction to artificial plant life within our personal spaces is down to the hustle and bustle of busy human life in which we simply do not have time in our day to stop and take care of the wildlife we could alternatively surround ourselves with. Kellert says of this 'Assuming this biological inclination continues to be vital to human health and wellbeing, one of the great challenges of our time is to foster beneficial contact with nature in our built environments, where we on average spend 90% of our time' (2018, preface). Day to day human life often means working in some form within an establishment, often the only time we spend outside during a day might be our commute to and from school or our place of work, and even this is only a fleeting appreciation for the earth we inhabit. Kellert suggests that we should be implementing change into our lives whereby we can learn to incorporate and appreciate our botanical surroundings into our towns, cities and built environments so that we don't lose touch with this biophilic affinity which is so essential to our health and wellbeing (2018). This enforces the idea that implementing a botanical environment into your working surroundings will improve your wellbeing and make you feel more inspired and at ease. This can be helpful for a designer as it is key to your practice to maintain your wellbeing in order to enable creativity and productivity which is essential to all forms of designer when it comes to motivating yourself.

Artificial replica of the natural world is something which seems to have increasing popularity within our modern workplace as the offer of items such as faux botanicals and faux grass, which require no care are often favoured over purchasing and caring for real plants. Artificial can be defined as 'made by people, often as a copy of

something natural' but it can also be defined as 'not sincere' (Cambridge English Dictionary, 2019). The differing meanings of these two definitions tied to the same word is both interesting and thought provoking in how we view and treat artificial replicas of objects in our world. Often, artifice can be viewed as vulgar and lazy if the quality of design and appearance is poor. The inclusion of botanicals has been proven important within the workplace with regards to our relationship with nature, as previously discussed from the point of view of Stephen Kellert who talks about the 'Biophilia Hypothesis' and how plants have such a positive effect on our mental wellbeing (1995). Mildred Reed Hall and Edward Twitchell Hall discuss the impact on windows within the office space which revealed views of a landscape. 'Many of them also commented on their pleasure in being able to look out and see a lovely landscape filled with trees and wildlife. This tie with nature was something which many people appreciated and took delight in sharing with us' (1995, p.34). It is clear that the inclusion of nature and scenery is considered an essential part of the enthusiasm and efficiency of a workforce. Furthermore, employees who worked in a space confined without windows or on lower levels of a building expressed that these conditions 'exacerbates people's feeling of being removed from the mainstream of company activity and sealed off from the outside.' They also went on to express that they found their workspace as 'confining', 'like a prison' and 'cut off from the world.' Therefore, space within the workplace and how that space is filled or presented is just as essential for good mental wellbeing as biophilic influence is.

Henri Lefebvre discusses space and how it exists and how it can disappear or be filled. Essentially there is only finite space on the earth and every new object or

product which is created, not from previous waste or of recycled material, is using up more and more of our limited space. Lefebvre says 'To hold, for example, that natural space, the space described by the geographer, existed as such and was then at some point socialised leads either to the ideological posture of nostalgic regret for a space that is no longer, or else to the equally ideological view that this space is of no consequence because it is disappearing' (1991, p.190). This idea discusses how the natural world came to be so inhabited by human life and the mourning of or disregard for the space which has been built upon or the space which has been taken by a building, village, town or city. This way of thinking is not one which seemingly comes natural to us as often we see buildings or products as necessities and not as a literal waste of space.

Space can be defined as 'to arrange things or people so that there is some distance or time between them' (Cambridge English Dictionary, 2019). However, it can also be defined as 'an empty area that is available to be used' (Cambridge English Dictionary, 2019). Ironically, the notion of space particularly in the first definition could be linked to the feeling of calm, relaxation and comfort; whereas the second definition challenges this idea with the suggestion of space being something which is free to be used, competitive and unsecure. This juxtaposition of emotions tied to the same word can be the fine line between using space well and creating an environment which promotes wellbeing and creating an environment which might feel claustrophobic and stressful. Lefebvre concludes 'the modern field of inquiry known as epistemology has inherited and adopted the notion that the status of space is that of a 'mental thing' or 'mental place' (1991, p.3). This supports the idea that

space works harmoniously with our mental state and allows us to feel a certain way within our surroundings, it isn't the space itself that manipulates our emotions but rather how the space has been used and filled. Lefebvre also goes on to discuss the 'space of work' and says 'can the space of work, for example, be envisaged as a void occupied by an entity called work? Clearly not; it is produced within the framework of a global society, and in accordance with that society's constitutive production relations' (1991, p.191). A global society can be described as international, where many areas of the world are interconnected and also a sense of unity or togetherness in which even though we may not be in direct contact with many of the people within a 'global society' we are still able to empathise and think about the consequences these people might feel from our own actions (eNotes Editorial, 2015). Examples of where we might find ourselves as a global society would be the likes of the clothing industry. Being one of the largest industries on the planet, the clothing industry is one of a sensitive nature in our current environmental and ethical stance.

As part of my own studies relating to our current environmental and ethical stance, a project from Welsh office furniture company 'Orangebox' was put forward to us. The project requested for us to explore the possibilities of manipulating the factory material offcuts and to reinvent them to create new designs for one of their classic models of chair, the 'Skoma' stool. The whole project focused on the idea of a 'circular economy' and the idea of 'cradle to cradle'. A circular economy is designed to factor waste out of the lifecycle of product and use of products, allows for products to be used or repaired for a lifetime, and to regenerate natural systems

(ellenmacarthurfoundation.org, 2019). An example in this instance would be the offcuts which Orangebox produces as a company, which are currently considered to be 'waste' and meets the end of its life when it can no longer be practically used to create a stool, therefore the lifecycle of creating their products is not circular. Walter R. Stahel discusses the roots of the circular economy and how essential it could be to our way of living. 'Circularity is the principle governing nature and a circular society, the latter enabled early mankind to overcome a scarcity of resources, people and skills by making the best use of the natural resources available; sharing and reuse were a necessity and the norm' (2019, p.3). This quote actually links into the idea of a nature design partnership previously discussed and the thinking of Plato where he talks about the human ability to gather and manipulate material to our requirements. A circular society can be defined as a society which mends, reuses and recycles all of the materials which are made and used (Stahel, 2019), this was a necessity in the early days of human development as skills and resources were not refined or developed enough to be able to broaden our material discoveries and creations.

Whilst it must be acknowledged that development and evolution has occurred since this time of a 'circular society' and that we can no longer find ourselves in a situation where a circular society is a necessary way of living, a simple review of our current affairs would identify the United Kingdom as a 'class' society. Our society is divided by social constructs and forms of identification. In a survey run by Sarah Irwin based on the question 'what type of society is Britain today?' (Irwin, 2019), many of the people questioned expressed concern about inequality 'Most participants saw the

social structure as very unequal and judged it negatively. They spoke about the uneven distribution of opportunities and life chances, injustice, polarisation, social exclusion, an elite with too much power, and the entrenchment of disadvantage' (Irwin, 2019). It can be deducted from this then, that ultimately the demand for finite resources and greed for wealth has pushed us to this level of extreme unsustainable and unbalanced lifestyle. Orangebox's willingness to reintroduce the notion of a circular economy to their production line is a step in inspiring other like-minded businesses to do the same and encourage clever thinking within the circular economy from the very beginning of the design development.

Orangebox also discussed the idea of the 'cradle to cradle' design concept with us as part of the briefing for the project. 'Cradle to cradle' encompasses the idea of reduce, reuse and recycle (William McDonough, 2019), with the idea of biophilic design which I have previously touched on within this essay. This manifesto looks at how products and objects could be designed so that at the end of their lives they provide benefit to our environment or to us, instead of being disregarded as 'waste'. The cradle to cradle model does not look at biophilic design as a whole, but rather it is a model which uses the very theory of biophilic design itself. 'Everything is a resource for something else. In nature, the "waste" of one system becomes food for another. Everything can be designed to be disassembled and safely returned to the soil as biological nutrients or re-utilized as high-quality materials for new products as technical nutrients without contamination' (William McDonough, 2019). This explanation of cradle to cradle demonstrates how it homes in on the lifecycle of life on this earth as its inspiration. This way of thinking could be implicated in the ways in

which designers work, so that not only are they becoming more considered and sustainable, but they may also feel more in touch with the natural world which has inspired their methods and processes and therefore this may encompass the feeling of biophilic affinity for the others which their work effects.

To summarise the thoughts and findings which have been discussed, it becomes clear that the starting point to build a better relationship between nature and the working world is the need to preserve biophilic affinities. It can be determined from my findings and research that in order for designers to encompass nature into both their practices and working environments, it is first and foremost essential that designers, and all human beings for that matter, are able to have contact with or at very least experience the natural world on a daily basis. Susan Stewart provides a very fitting quote to summarise many of the topics which have been discussed within this essay.

‘in *On Longing*, Stewart meditates on how objects collected and stored in museums, whether public or private, mediate experience in time and space. For Stewart, such objects engender interest because ‘when they are defined in terms of their use value, they serve as extensions of the body into the environment, but when they are defined by the collection, such as extension is inverted, so the environment is subsumed into the scenario of the personal’ The implication in Stewarts thinking is that collections are constructions or compositions, and that ‘the ultimate term in the series that constitutes a collection is the ‘self’, the collectors own ‘identity’ (Hemmings, 2012).

This quote really combines and unites all the different sections of discussion which I have broached within this essay and formulates them in a way which demonstrates the implications of each part on another. Simple design changes can be made by looking at nature's methods and processes. I have discussed biophilic design and also biomimicry as examples of where this idea is already being implemented into our working world. In the introduction of this essay I mentioned the idea of the planet being a 'stakeholder' within design and how we are influenced to design things, but it also becomes apparent that future generations of our species are also stakeholders in the way in which we go about design (Willard, 2019). It is these future generations who will surely inherit the world we leave behind and therefore it should be our responsibility as designers to start implementing these new methods of dealing with the current levels of consumerism and production which we have developed within our current economy. It can also be concluded that the inclusion of natural spaces and places within our built-up areas and within areas of work such as an office space is directly correlative to the productivity and aura which a company might give off to clients and other businesses. Embracing and respecting nature and the powerful influences which it encompasses as oppose to using and diminishing our natural environment, bringing the outside in, will be one of the most beneficial ways in which we can all learn to incorporate nature into our working lives.

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