

Title; ***How can designers explore the tools and approaches of wellbeing to create interior design spaces that improve mental and physical wellbeing in the workplace?***

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How can designers explore the tools and approaches of wellbeing to create interior designs spaces that improve mental and physical wellbeing in the workplace?

During the pandemic lockdown of 2020, and the past year, 2021, wellbeing has been a topic of national concern. In this independent project I will be looking at what wellbeing is in the context of the workplace, the impact of having high and low wellbeing, and how it can be a significant factor in affecting our mental and physical health. The different tools and approaches to create an interior design space that will improve mental and physical wellbeing at work will be explored. Approaches such as ergonomics, different working framework types, biophilic design and forest bathing. In addition, I will also investigate the advantages and disadvantages and how they impact individuals in the workplace.

‘Wellbeing’ is a term that has been used to discuss the effects on human mental and physical health. The Oxford English Dictionary defines wellbeing as the state of being or doing well in life; a happy, healthy, or prosperous condition; moral or physical welfare. Further analysing the definition of wellbeing there are a few different interpretations of what wellbeing is and according to different areas of study the definition is understood in slightly different ways. The definition of wellbeing given by the Oxford Dictionary of Politics and International Relations, is the idea of the ‘good life’ and the ‘good society’ (Brown, McLean, and McMillan, 2018). It mentions Aristotle’s ‘eudaimonia’, the pursuit of happiness, which describes the aim of a good life as the highest good humans can strive for. Parallel to this thought is the Greek philosopher Epicurus, who also describes the desire for life well lived and the significance of happiness. Since the time of Aristotle records have shown that humans have striven to obtain happiness. This view aligns with Utilitarianism. This theory it advocates the actions to obtain happiness. The right action is that which has the consequences which maximises the wellbeing or happiness of affected agents i.e. the best action is that which produces the greatest improvement in wellbeing, (Lancaster University, 2006).

For the purpose of this independent project, *wellbeing* will be defined as good mental and physical health. Wellbeing does not mean the absence of stress in life as this is unrealistic and implausible. It is, however, having the ability to deal with stress and anxiety

efficiently, calmly, and productively in day-to-day life, in addition to high stress situations and tasks. The result will be that the individual feels productive and motivated to participate and continue to tackle any type of task. This project is predominately about the effects of wellbeing in the workplace, therefore the reasons for both high and low wellbeing will be positioned through the lens of workplace environments.

When looking at wellbeing, it is important to also consider mental health as these two go hand in hand. The World Health Organisation (WHO) defines mental health as 'a state of wellbeing in which the individual realises his or her abilities, can cope with the normal stresses of life, work productively and fruitfully, and is able to make a contribution to his or her community', (Public Health England, 2019). Mental wellness is significant on the impact of mental health as longer periods of low mental wellbeing can lead to the development of diagnosable mental health conditions. Mental illness can make day to day life exceedingly difficult, so much so that it is said in the NHS National Service Framework, 'Mental health should have the same propriety as coronary heart disease' (Department of Health and Social Care, 1999). With that being the case, The UK Care Act (2014), promotes the need for wellbeing for everyone as there is 'no hierarchy, and all should be considered of equal importance when considering 'wellbeing'' (Department of Health & Social Care, 2021).

In the 1940s, in the United Kingdom, it was a collaboration of a range of disciplines dealing with health that led to the derivation of the idea of wellbeing. Derek Richter, a neuro-chemist, who was 'absorbed in the aetiological problems of mental illness', (Royal College of Physicians, 2019), an interest that most likely had cultivated due to having family members suffering with poor mental health. He was frustrated by the lack of advancements regarding mental health care, so he advocated for more research to be undertaken regarding mental health. Richter was the first person to bring together multi-disciplinary psychiatric researchers to conduct a major research conference in 1952. This collaboration allowed for the exchange of different ideas from a wider range of fields, this was the start of what is now the Mental Health Foundation, (Mental Health Foundation, 2019).

Although Richter's contribution was pivotal in the advancement of mental health care, the extreme stigma and fear surrounding mental illness remained for a long time after.

It was not until the 2000s that good mental health and wellbeing for all became an open subject for discussion in society, (Mental Health Foundation, 2019). It is common that a lack of knowledge of what help can be obtained causes the progression of mental illness. It is for this reason, Richter's campaign to receive funding for mental health research was so instrumental in change. It is through this fundamental step that the development of organisations and charities have been able to emerge, and through mental health organisations more can be put in place to help educate and safeguard vulnerable people. The World Health Report (2001) highlighted that neglect arises from a lack of understanding. To further illustrate how important knowledge is regarding mental health the United Nations' health agency published a report in 2001, "New Understanding, New Hope" (World Health Organization, 2001), which encouraged governments to use solutions that were already available to them.

More recently, The Wellbeing of Future Generations Act (2015) was passed by the Welsh Government. A key point to note is that the Wellbeing of Future Generations Act is only implemented in Wales and now, after six years, there is more pressure on the UK Government to follow suit with the Welsh Government. This Act is an ideal example of a new and current law that uses relevant information and already effective methods to create an outline that can bring change. The Wellbeing of Future Generations Act illustrates the importance of wellbeing in contemporary society and exhibits the government commitment. This Act's seven wellbeing goals, which can be seen in the diagram in Fig. 1, have been put in place to improve social, economic, environmental, and cultural wellbeing in Wales, (Department for Natural Resources of the Welsh Government, 2015).



Fig 1. 7 connected well-being goals for Wales

The most relevant section from The Wellbeing of Future Generations Act and to look at in relation to this independent project is 'A Healthier Wales'. This section of the Act focuses on making, *“a society in which people’s physical and mental wellbeing is maximised and in which choices and behaviours that benefit future health are understood”* (Future Generations Commissioner for Wales, 2020). The layout of the Act includes an outline on what simple changes can be made to achieve their goals, it looks at the measures that are already in place and they provide ways to implement or improve these measures.

Additionally, what is intended is that the wellbeing of individuals will impact on the social, economic, environmental, and cultural wellbeing in Wales. The government’s research indicates that organisations who make a conscious effort to improve staff wellbeing, will consequently have a ripple effect on Welsh society. The intention is that an improvement in an individual’s work life will positively impact on the quality of their life in general (Future Generations Commissioner for Wales, 2020). Therefore, one could argue that there is a

significant importance to having tools and approaches that enable the creation of interior design spaces that improve and strengthen mental and physical wellbeing.

It is beneficial to recognise the causes of low wellbeing as this can indicate what are the biggest problem areas that need to be addressed. One of the main causes of low wellbeing is stress; '74% of people have at some point felt so stressed that they felt overwhelmed or unable to cope' (Mental Health Foundation, 2016). It is common for people to underestimate the full effects of stress and it can often manifest into more serious mental illness if left unchecked. Many believe that symptoms of stress are only to do with the mind, such as feeling overwhelmed or constantly worrying or even struggling to make decisions. However, the NHS website indicates that there are more physical and behavioural effects of stress. Some people experience muscle tension or pain, stomach problems, chest pain or a faster heartbeat, and sometimes it can lead to being irritable and snappy, sleeping too much or too little or eating too much or too little, (NHS Health A to Z, 2019).

There is a correlation between the workplace and high levels of stress, with 'work-related stress [being] the second-biggest occupational health problem in the UK', (Trades Union Congress, 2018). The workplace is often one of the main causes of stress and anxiety in an employee's life and a reason for this could be because of the high demanding tasks and responsibilities that come with the occupation. Since demanding jobs are common for many people, research shows that looking after one's mental wellness in the workplace is very important. Through the help of legislations, such as The Health and Safety at Work Act (1974), there is some pressure to implement and ensure the health, safety, and welfare at work of all employees. As a part of this law, it states that the employer must try to remove or reduce stress for their employees, "as far as is reasonably practical" (Trades Union Congress, 2018).

Well-designed workplaces contribute to reducing stress. Ergonomics is a method used to design interior spaces which are intended to improve mental and physical wellbeing in the workplace. Ergonomics is 'the study of working conditions, especially the design of equipment and furniture, in order to help people work more efficiently' (OED, 2021). Christy and Duraisamy recognise that in order to reduce stress in the workplace the design of the

equipment and the working environment needs to be taken into consideration. He advocates for 'effectiveness and productivity of work system while assuring the safety, health, and wellbeing of the worker', (Christy and Duraisamy, 2020). It is common to overlook the importance of good design, but it is these designs that allow the user to have a more productive and comfortable experience. In the terms of workplace ergonomics, it is a contemporary concept. In the times of the industrial revolution, it was more important for the job to be done rather than the comfort and wellbeing of the workers. However, it is widely acknowledged that workers would be more efficient and the work itself would be done to a higher quality if the design of the equipment was safer and user friendly.

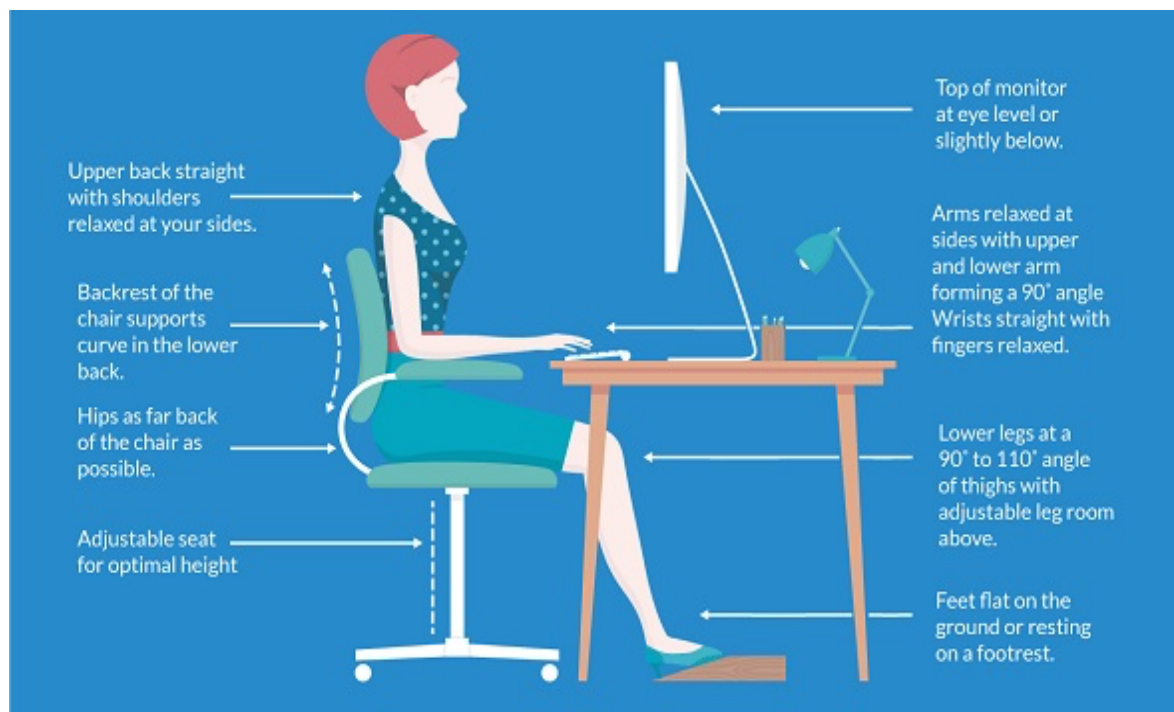


Fig 2. Correct sitting posture

It is the employer's duty to provide workers with adequate working space and when considering an office job, as it is crucial to have basic things such as a desk and chair that ergonomically fits the needs of the employee. In Fig.2, it illustrates the perfect sitting position, for occupations that require employees to be sat at a desk for prolonged periods of time the ergonomics of their desk space is essential. There are also other things to considered, in a brief guide by the Health and Safety Executive, on Ergonomics and human factors at work (2013), it illustrates how simple changes can greatly improve a worker's productivity. One example case study is a receptionist at a bank. As a result of poor design

quality in her work environment, the receptionist experienced continued eye strain from an inadequately positioned computer screen; additionally, having to balance the telephone between her ear and shoulder has also injured both neck and shoulder. Had these problems been left unchecked, it is possible that it would have led to this employee's decreased wellbeing as she would have continued to be in pain, which would mean the need to take time off work. Statistics show that majority of time taken off work is due to work-related illness, on average, each person suffering took around 17.6 days off work in the year 2019/2020, (Health and Safety Executive, 2020). This can be avoided with a straightforward and simple solution, such as using a handsfree headset to answer the phone. This would allow her to work more effectively and productively, with a minimum of work-related time off. Even though these things might seem insignificant, they ultimately can create an insufficient work environment and cause a great deal of stress. This will lead to the worker feeling unhappy and unmotivated, which can lead them to be unproductive at work and this is not a good outcome for neither the employee nor employer.

Another way of creating an environment that boosts employees' morale and encourages a better sense of wellbeing is by allowing a more versatile way of working. Currently, there are three styles of working that have become more desirable: flexible working, hybrid working and agile working, (OKTRA, 2021). These ways of working are replacing the conventional fixed work-setting and demand a contemporary workplace design that is all about choice and not desks. Flexible working is mainly about working hours, it is a way to accommodate a better work/life balance by adapting the traditional 9 to 5 hours. Hybrid working although not a new concept, has been popularised and sought-after since the pandemic. During the 2020 lockdown, numerous workplaces asked their employees to work from home, which can be beneficial in some respects, however, hybrid working allows the best of both, allowing you to work in the office and remotely, and it is predicted that 41% of the workforce will embrace hybrid working, (Watson, W. 2021). An agile workplace is a healthy workplace as this strategy encourages a dynamic work environment which breaks down traditional barriers, empowering employees to work in a way that best suits them. Physical and mental wellbeing is often compromised when working a 9 to 5 desk job in an enclosed office space, with, '80% of workers would turn

down a job that did not offer a flexible work schedule', (Zucker, B. 2021). Hence, why different ways of work all contribute to allowing a healthier and productive workplace.

Recently, the wellbeing of workers has been further threatened and worsened by the global pandemic, impacted by the aftereffects of Covid-19 and the 2020 lockdown. A study looking into how the stress generated by the pandemic may affect work performance has been done by Sadovyy, Sánchez-Gómez, and Bresó, (2021). This study strengthens the argument that stress is a key factor on work performance and productivity. It looks at the importance of strong Emotional intelligence, which is the ability to understand, use, and manage your own emotions in positive ways to relieve stress, because counterproductive work behaviours are lessened when there are lower levels of stress, (Sadovyy, Sánchez-Gómez, and Bresó, 2021). Within the workplace there are other external factors that cause us stress and it is true that many are out of our control. It is, however, also true there are some aspects that we can control. For example, our environment. In Cowie and Myers' (2021) 'The impact of the COVID-19 pandemic on the mental health and well-being of children and young people' review into the impact of Covid-19 pandemic on mental health, they highlight that a loss of connection with others and the restriction to seeing friends through digital screens resulted in people feeling isolated. They also pointed out that there was a greater impact on those living in cramped conditions with no access to a garden or park, (Cowie and Myers, 2021). This aligns with theory of Biophilic design and the view that having some connection to nature in your livening environment has a considerable influence on your mental state.

An approach that can be said to create an interior workspace that promotes mental and physical wellness is Biophilic design. The concept of Biophilia was used by American biologist Edward O. Wilson in his 1984 book *Biophilia*, and he explains that humans have an innate need to be with nature. It is believed that nature can have a positive influence on our mood, as well as have the ability to improve our health. There is a plethora of research to suggest that the exposure to the outdoors and being connected to nature can help reduce stress and improve other health problems. Several studies show that green spaces can calm us and makes us feel happier. Dr Bird, a doctor who has also worked for the World Health Organisation (WHO), claims that for city-dwellers the disconnection from nature has been

scientifically proven to worsened health conditions, such as chronic stress, (The Architects' Journal, 2012). With our environment having a significant effect on us, it is no surprise that with the expansion of urbanised living and the ever-growing population in these areas, that there has been an increased interest with Biophilic design.

More recently, the idea of Biophilic design has really progressed in the design of the workplace, as there has been a real concern that more implementation needs to be put in place to reduce stress at work. Biophilic design in workplaces is recommended as the goal is to help improve mental and physical wellness. Fig 3 is an example of an innovative incorporating of biophilic design in an interior space. By incorporating this design approach to the interior space in the workplace we can create an environment that improves our wellbeing. The concept of biophilic design is to bring the nature in, to provide humans with exposure to nature by incorporating natural features into the built environment which has proven to have a positive effect on human health and wellbeing, (Gillis and Gatersleben, 2015).



Fig 3. Biophilia incorporated into a workspace

There are ways that nature can be incorporated into interior design, the experiences, and attributes of Biophilic design, which is explained in “The Practice of Biophilic Design” by Stephen Kellert and Elizabeth Calabrese (2015).

Explained in their book, there are direct ways of adding nature into the workspace, for example through plants, light and water, but there are also indirect ways such as natural colours and natural materials, (Kellert and Calabrese, 2015). One way to add an element of nature into a working space is live walls, they are easy to install and can have a positive influence in a subtle way. A living wall is made of real plants and can be made to whatever size is necessary for the desired space. By adding this natural element to a workplace interior, it can help increase concentration, productivity, and wellbeing. Live walls enhance the general indoor climate and can greatly improve the air quality. Especially advanced version of active living green wall, intelligent wall, called Naava, (Fig 4), which with the assistance of AI system can purify the air equivalent to ‘6,000 plotted plants’, (Barton, 2018).



Fig 4, Intelligent wall, called Naava.

While it is true that there are many benefits to being connected to nature, a large portion of the pre-existing research is only to do with the impact of nature. The research done on the impact of biophilic design mainly focuses on the positive, which consequently means the limitations and possible negative implications of biophilia at work are yet to be fully known. To see the full picture of the contemporary idea and to have a complete understanding of biophilia, both positive and negative impact should be investigated further. It is for this reason that Sanchez and Ikaga's work, as well as Qinghua Lei and Chao Yuan's research is so valuable.

As previously mentioned, the exposure to natural elements can have a major impact on the employee's physical and mental wellbeing. This notion was a focal point in a pilot case study done by Sanchez and Ikaga (2018), which was conducted to gain greater knowledge of productivity and creativity in the workplace. By using three groups with different controlled variants, such as the installation of greenery and daylight, they can evaluate the performance of the group. Participants in biophilic space are shown to have 4.92 points more in creative task scores, and drowsiness perception descends 6.2% in the morning and 9.4% in the afternoon. According to this pilot study, it is found that there are benefits to performance, creativity, user wellbeing and health in biophilic designed workplaces, by combining greenery and daylight.

Qinghua Lei and Chao Yuan (2021) have done a quantitative study for indoor workplace biophilic design to improve health and productivity performance. In this experiment, they aim to measure the wellbeing performance in different workspaces. The work done by Lei and Yuan (2021) has given valuable insight to the scientific understanding to workplace wellbeing and its connection to biophilic design, which will in turn allow better decision-making in the process of designing workplaces. The study looked at five different ratios of green coverage in a workplace set up, ranging from 0% to 20%. Examining the results in more detail it shows that 0.2% and 5% green coverage ratios was not enough and 20% seem to be too overwhelming. It is as a result of the study it is recommended that 12% of green coverage is a good level to boost psychological, physiological and productivity performance.

Although in Lei and Yuan's research it suggests that being fully surrounded by greenery is too overwhelming, the practice of Shinrin-yoku, also known as Forest bathing, is being entirely in the midst of nature. Due to the national lockdown of 2020 and the ongoing aftereffects of Covid-19, the phrase 'going back to nature' has become trendy but given the circumstances, very relevant for everyone's wellbeing. Shinrin-yoku is a traditional Japanese practice developed in the 1980s. It is the practice of immersing oneself in nature by mindfully using all five senses, (Hansen, Jones, and Tocchini, 2017). It is the belief that it can provide healing and have therapeutic effects in the immune system, cardiovascular system, and respiratory system. It is a simple technique to bring relaxation and to help boost health and wellbeing in a natural way.



Fig 5. Forest bathing

Once in the forest, the idea is to focus on your breathing and be surrounded by trees and other forms of nature, to fully experience a sensory journey of meditation. Using the senses to feel all the elements of nature will help disconnect and destress. Fig 5 is a useful image to get a sense of how the forest scenery can be calming. The idea is to be mindful and

fully engrossed by the rich shades of green from the trees and browns from the earth, to hear the birds above, smell the fragrance of the trees and feel the roughness of the tree bark. It is to enjoy the fully sensory forest-based experience. Forest-bathing and being completely engrossed in nature might seem excessive and hard to achieve in everyday life, especially for those living urban areas, however ‘greater daily exposure to greener areas,’ (White, Alcock, and Wheeler, 2013) will make a difference to one’s wellbeing.

Having explored several tools and approaches of wellbeing that can create interior designs spaces that improve mental and physical wellbeing in the workplace, it is beneficial to now look at current companies that implement these tools and approaches into their workplace. The most progressive and forward-thinking companies recognise that 85% of employees feel that ‘design of their workplace is important to them’ (Leesman Employee Experience Survey, 2019).



Fig 6. The Spheres’ green wall

Large corporate offices have followed suit to try and incorporate Biophilic Designs in their workplace, the Amazon Spheres being one of them. Based in Seattle, the massive structure embodies the concept of Biophilic design, with every aspect of the building being created with that idea at the forefront, in addition to a keen focus on sustainability and wellness. One key feature that the Amazon Sphere has is a 4,000 square feet live wall, shown in Fig 6, with 25,000 plants and over 200 different species. Amazon hope the design inside the Sphere displays a outdoor setting which will help employees feel free rather than 'stuffed in cubicles', (Streettrotter, 2021).

Workplace design and build specialists, TSK are a Manchester based company who aim to help organisations reach their full potential. They understand that when the wellbeing of the people within the organisation are being met, they can work to their highest ability, and it benefits the company as a whole. TSK have transformed office spaces such as Flutter Entertainment in Leeds and Metro Bank in Bristol.

Opening a new £15m technology and innovation hub in Leeds, Flutter Entertainment has created, according to Conor Grant, the CEO of Flutter Entertainment UK, 'a modern, agile and flexible workspace', (Flutter Entertainment, 2021). The 136,000 sq. ft office is a flexible and innovative space that spreads across eight floors which has been designed with the wellbeing of their employees in mind, aiming to make the 'working environment healthier', (Flutter Entertainment, (2021).

This technology hub has the highest environmental standard, meeting both Building Research Establishment's Environmental Assessment Method, (BREEAM), and Well Building Standard (WELL). BREEAM, created by BRE, is the 'world's first and leading sustainability assessment and certification scheme for the built environment' (BREEAM UK New Construction, 2019), and WELL, created by International WELL Building Institute (IWBI), is 'the leading tool for advancing health and wellbeing in buildings globally', (International WELL Building Institute, 2016). It is notable to emphasize the advancements of design standards in the workplace. The purpose of companies such as BRE and IWBI is to ensure

that buildings and workplace designs are to adequate standards to uphold the wellbeing for employees, WELL 'intended to promote and improve human health and wellbeing', (International WELL Building Institute, 2016).

The new Flutter Entertainment workplace that has been designed is created for the space to be more than just an office, it is a space that can be adapted to suit any work project. With the forward thinking and innovative design, it enables employees to work in a way that is most effective for them, individual desk places for independent work but also social areas where collaboration and creativity can thrive. In the midst of a global pandemic, working from home and taking calls through digital devices meant that there was a lack of human connection, and it could often lead to feeling isolated. Which is the reason why this working environment, with 20% non-working space made for social interactions, attracts new people who feel inspired and have a strong desire to work there.

Illustrated in this independent project, humans persistently seek to understand what makes a life good and how exactly to obtain happiness. It appears that there is one key element that can help contribute to all aspects of having a good and happy life, our wellbeing. The physical environment we are in contributes to our day-to-day health and productivity, so it is pivotal the design of the workplace, a place in which a substantial amount of time is spent, is built to ensure the wellbeing for employees. Having looked at the various ways that can affect our wellbeing

A design approach of an interior space that takes into consideration the improvement of both mental and physical wellbeing is ergonomics and agile working. Traditional office jobs consist of sitting long hours at the same desk, which can negatively impact one's wellbeing. Contemporary office layout provides diverse areas in the office, allowing employees to utilise their workplace, move around and work in a more productive way to reach their full potential. Whilst ergonomics implements good design to reduces any physical strain on employees by considering all aspects their working space. These design approaches are benefitable to employees as they feel valued and ergo it will booths their wellbeing allowing them to work better.

From this independent project, it shows that nature is an integral component to consider when discussing tools and approaches to improve wellbeing in the workplace. As explored in this projects, biophilic design is a key design method that is being used more frequently. The idea of bringing the outdoors in, incorporating plants and other natural feature in the office space is extremely popular especially after the Covid-19 global pandemic that restricted us from leaving our homes. Which is another reason why forest bathing is far more appealing to those who live in urban areas. We as humans need that connection to nature to help us improve our wellbeing.

Most importantly, the main findings of this independent project are that the design of our workspace is paramount as it has direct correlation to the impact on our mental and physical wellbeing. All aspect of the workplace needs to be carefully designed to be permit maximum amount of productivity from employees, in addition to boosting creative collaboration between people, encourage inspiration and amply performance.

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Figures

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Fig 6. The Spheres' green wall (2020) Available at <https://retaildesignblog.net/2020/02/25/amazon-corporate-headquarters-seattle/>