The Oneness of Eastern Heart & Western Mind in Future Workspace

Master of Architecture Explanatory Document


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ABSTRACT

Throughout the history of the workplace, with the aim of increasing the competitive advantage, organizations have focused on many innovative strategies to improve human performance at work. Human performance such as concentrating on work or collaborating with others can be enhanced by situational factors that are introduced into the working environment. One of the most important factors is workspace.

The project was first started with a research request from Warren & Mahoney Architects (WAM) in Auckland on the concept of interactive space and Activity Based Working (ABW). The aim of the research is to study the advantages and disadvantages of ABW and how the workplace could be improved in the future.

ABW is considered as a controversial new model of working because of its bold, innovatory idea of reducing personal workstations and freeing all the employees from owning one. It is believed to bring out many promising advantages in both the short term and the long term, especially for the organization. Nevertheless, dealing with sceptical opinions on the performance of employees at work and how to balance the advantages and disadvantages of ABW in the design of a future workplace becomes demand made on the architects.

Whether the design of architectural space, a workspace in particular, can become a solution for this problem is the first question in the beginning of this research. The ABW concept stands for the Western idea of improving quality and productivity in the workplace. In the history of the workplace, all the management thoughts and technologies come from the West.

People have been offered a better working environment with high technology and comfortable facilities. However, it is still a big challenge to fulfill one need without limiting other needs. The design of the workplace is not only about following a management system or providing comforts at work; it is also about creating an atmosphere that cares for an individual’s feeling. In order to deal with the issue of people feeling content and happy in the workspace, the direction of this research has headed towards Eastern philosophy on happiness at work.
Figure 1: Happiness fuels success
ACKNOWLEDGEMENTS

I would like to thank my principal supervisor Tony Van Raat for guiding, supporting and encouraging me over the year. Your constant enthusiasm, encouragement and feedback has been absolutely invaluable.

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I would especially like to thank my amazing family for the great love and support I have received over the years.
INTRODUCTION
2.1 PROJECT OUTLINE

The intention of this project is to find an architectural solution for future workspace design, aiming to achieve Happiness at Work in a way that can balance:

- The Happiness of the organization by a financial benefit.
- The Happiness of the employees at work inwardly and outwardly.
- The Happiness of the customers.

The project is to apply the concept of Activity Based Working (ABW) and the ancient Eastern philosophies (Buddhism, Hinduism and Taoism) into the new workplace design of Unleashed, a software company based in Auckland, New Zealand. Flexibility in working, for example hot-desking, is popular with software companies in order to offer employees flexible schedules and also help the company cut overhead costs significantly. Recently, ABW has developed as being the new way of flexible working which gives people choices at work with the focus being on sharing other than owning space and facilities. This idea of reducing the ownership of personal workstations becomes a controversial topic which will be mentioned in more detail later. Apart from this issue, working long hours in front of a computer screen with an intensive pace and a lot of deadlines causes stress, depression, work-life imbalance and health problems for IT employees. The study intends to deal with these problems of this field in particular.

2.2 RESEARCH QUESTION

“How can the concept of Activity Based Working (ABW) and the ancient Eastern philosophies supplement each other in the design of future workspaces that can overcome the barriers to effective, life sustaining use and achieve Happiness at Work?”

Sub questions:

- How can an architectural solution deal with the conflict between designing for Interaction and Flexibility and for Privacy and Stability?
- What are the advantages of ABW that promise a brighter future for workplace design in particular? What are the disadvantages of ABW office design that need to be handled?
- How can the principles of ancient Eastern philosophies deal with those issues? How to apply those principles to architectural practice?
Development in the design of the office can be traced back over a hundred years. In the early 1900s, the application of management thinking to the operation of the first design of an office was scientific management by Frederick Winslow Taylor. In an open space, he gathered all the employees working at their personal desks next to each other and placed managers and bosses to watch over them from private offices.

At that time, Taylorism, as a science of the mechanics of movement in order to improve economic efficiency, especially labour productivity, also had an influence over the modernists in architecture. In the 1920s, Le Corbusier came to value Taylorist principles as a theoretical idea useful to science and industry. As such it was a significant part of his rhetorical validation of functionalism in architecture, particularly in office building projects. In practice Le Corbusier’s designs for large office buildings, show a predilection for long runs of single and double loaded cellular offices reminiscent of the late 19th century Chicago precedents (before the Taylorist office assembly line).

In Figure 2, the perspective drawing of the Algiers Naval Zone project (1938-42) by Le Corbusier, “the office space - unified with the outside world - is an open space of abundant dimensions alluding to the distinction of bureaucratic endeavour. Working in this space, buttressed on one side by a Virgilian landscape and the other by a battery of storage and office equipment, one must feel an impetus to think big thoughts, banish petty ones and get things done.”

![Figure 2: Naval Zone Business Centre Project (1938-42) Algiers, drawing by Le Corbusier](image)

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2 Ibid.
Later, management thinking changed again with the Organizational Behavior and Human Relation movements which meant that the human factor became more important for increasing productivity. As Nikik Saval mentions: “The ruthless supervision and fiat solutions of the Taylorists survived in part, but they would be mollified with a veneer of pop Freudianism. The growing popularity of behavioral sciences led managers to try to discover how workers actually behaved rather than how they should behave”\(^3\)

In the 1950s Germany, a radical new office layout known as “office landscape”, or Burolandschaft in Germany, was developed as a new concept of the office reflecting the organic and natural landscape on a human scale. It was intended to provide a more collaborative and humane work environment. Office furnitures was designed to develope the advantages of the office landscape, but with slightly greater privacy and more density. The issue of open space with too much communication and private space with isolation were the problem for the rejection of office landscaping.

In US and many other Western countries, the open plan office came to prominence during the 1960s when knowledge work clearly overtook manual work as the dominant economic force. At that time, Herman Miller and Robert Propst were inspired to do a research on the awareness of how the workplace itself could become more responsive to knowledge workers and their work. In 1964, Miller unveiled the practical result of Propst’s research, the first modular business furniture system, with low dividers and flexible work surfaces, the “Action Office.” While most office designs were meant to keep people in the same spot as much as possible, the Action Office was about movement and flexibility. However, the Action Office soon turned out to be more box-like and also kept people in position since “companies had no interest in creating autonomous environments for their ‘human performners’. Instead, they wanted to stuff as many people in as small a space for as cheaply as possible as quickly as possible.”\(^4\) Miller and Propst finally made and sold what those companies wanted.

In 1969, management guru Peter Drucker came to value the importance of the performance of knowledge workers in the profitability of the organization and the American economy. In *The Age of Discontinuity* he separated knowledge


\(^4\) Ibid, 217.
workers from manual workers and predicted about the expanding role of knowledge in an information-based economy. He claimed that the requirements of knowledge workers to be able to bring out the best performance at work were not fulfilled or were being missed out.

“In the last twenty years the base of the American economy shifted from manual to knowledge work, and the centre of gravity of our social expenditure from goods to knowledge. Yet neither the productivity nor the profitability of the American economy so far show the impact. Clearly we do not as yet know how to obtain economic performance from knowledge. We also do not know how to satisfy the knowledge worker and to enable him to gain the achievement he needs. Nor do we as yet fully understand the social and psychological needs of the knowledge worker”

Drucker is known as the father of modern management for his numerous management books and articles on predicting many of the major developments of the late 20th century. He asserts that “Knowledge worker productivity is the biggest of 21st century management challenges. In the developed countries, it is their first survival requirement”.

Significant efforts have been made in this quest. Along with the revolution in the IT field, the design of an office has been changed rapidly. Valuable knowledge workers were being offered a range of supportive amenities in and around the workplace – gym, restaurant, and private health care.

Moreover, the wide spread of high technology such as mobile phones, laptops and internet has had a great effect on the recent changes in the workplace. People no longer need to stick to their desk all the time. Instead, they can either work at the office or at home, or even at a café. The new style of working called ‘hot-desking’ was born. It means that in a completely open plan office, people can choose where to work. It is clear that technology has created a greater flexibility and mobility for people at work. As can be seen in Figure 3, technology plays an important role in many activities in the modern workplace.

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Employees are able to, and expected, to work efficiently and effectively regardless of time or location. This model of working has become very popular in the IT field. Saval also writes about a new concept of office space from the product engineers at IBM: “They had tried a new office space which was without walls and without permanent
workstations. It was called the “non-territorial office”. They tried to set up a space that could accommodate motion between different kinds of work setups, based on the particular task at hand.⁷ Apart from the flexibility being offered, hot-desking style made it difficult for many staff to feel comfortable since they had minimum privacy to concentrate. The design of an office is still changing day by day in order to deal with all the problems when one style of working seems to be unable to satisfy all parties.

### 2.4 PROBLEMS OF WORK IN THE MODERN DAY

Regardless of all the efforts to improve and change the workplace over the years, the issue of the balance between interaction and sharing at work, with individual concentration and privacy, seems to remain. “Companies have been trying for decades to find the balance between public and private workspace that best supports collaboration. In 1980 our research found that 85% of U.S. employees said they needed places to concentrate without distractions, and 52% said they lacked such spaces. By the late 1990s, the tide had turned, and only 23% of employees wanted more privacy; 50% said they needed more access to other people, and 40% wanted more interaction.”⁸ All the working models in the past faced the same problem: that there would be a number of employees struggling to adapt. Cubicles were criticised for lacking interaction and allowing sound distraction. Open plan was criticised for its lack of privacy and also for providing too many distractions. A private office is considered to be too isolated and hard for people to approach. Each model individually contains advantages and disadvantages that cannot satisfy everyone.

The modern workplace is being designed, indeed also located and operated, with people in mind to a much greater extent than ever before. More thought is given to facilitating interaction, supporting the culture of the organization and providing staff the facilities they need to feel more comfortable and able to work more productively. The modern workplace has changed to become more relaxed and comfortable than a conventional one, while it is also facing the problem of work-life balance when all the comfortable facilities at work tend to keep people working for longer hours. “As office hours have lengthened to encompass breakfast and dinner hours, and office habits

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⁷ Saval, *Cubed*, 258.

have favoured arm’s-length electronic relations, office workers have become modern-day anchorites, doing all their working, eating, personal grooming and private entertainment in the one place.”

2.5 METHODOLOGICAL APPROACH:

Methods of Data Collection & Analysis:

The data used in this research report has been collected through methods of verbal communication, books, articles, the internet and searching statistics.

Information and drawings of a case study (the Spark building) were provided by WAM.

Information on working methods and styles was obtained from informal conversations with Unleashed Software team members.

Ancient Eastern philosophy, books and journals were provided by the library of Sri Chinmoy meditation center in Auckland.

Initial site surveys and photo documentation of the site are sourced from site visits as well as online databases.
ACTIVITY BASED WORKING (ABW)
A BW is a growing trend in office design. The concept is focused on how employees work, based on the technology they need and the environment they require for specific tasks, as opposed to the place they work. ABW offices have a mix of quiet concentration rooms, collaborative areas, lounge areas, meeting tables, presentation rooms, straight-bench workstations and a common area for lunch breaks etc. These types of offices, by design, do not provide enough space for all of their employees at one time and are designed to have capacity for around 80% of the company’s total workforce. The logic is that there are always significant numbers of empty work stations in a traditional office at any time as people are at meetings, travelling, on leave, working part-time and so on.

3.1 THE CONCEPT OF ABW
The concept of ABW was developed and refined by Veldhoen + Company in the Netherlands. Figure 6 shows how the company explains the holistic approach of ABW. At the Workplace Trends 2012 conference, Louis Lhoest from Veldhoen clearly stated that ABW is about the way of working in supporting business and business drivers, enabling staff to live company values, enabling people to realise their potential, improving productivity, delivering sustainable change with a holistic approach.\(^\text{10}\)

![Figure 7: The holistic approach of ABW.](image)

The idea is to create a workplace that enables staff to be productive in the most appropriate location, which also means flexible working, and on the most appropriate device. To be more specific, there will be fewer, or even no, personal workstations. “Initially ABW mainly involved switching to flexible workplaces and drastically reducing the number of desks and offices required. Some of the budget

The vision of ABW is to make work more effective and efficient, but also more enjoyable for both the organization and the employee. The vision is realized by focusing on the employees and giving them the space and freedom - within boundaries - to decide:

- How they work,
- Where they work,
- When they work,
- The tools they use and
- With whom they collaborate

to get their work done.

ABW seeks to create the best circumstances for activities so that the employees will be able to carry them out to the best of their abilities. It is believed that this will make work more effective and efficient, but also more enjoyable for both the organization and the employees.  

Instead of being allocated seating and desktop computers, employees in an ABW organizations predominantly use mobile devices and are seated based on the activity or project they are working on at the time. ABW has its foundations in the three pillars of people, place and technology.

3.1.1 The advantages of ABW

The benefits of ABW are the focus on better performance of the organization and people. With an ABW environment in place, IT and business leaders are expected to be more confident, staff will be more valuable and produce better outcomes. ABW is believed to foster a culture of collaboration and knowledge sharing, where staff can be inherently more cross-functional in their duties. The mobility and the better collaboration are said to help drive better customer engagement.

Figure 8: The rate of different benefits from ABW
Importantly, ABW is considered by its promoters to be a good model for the organization in flexibility of space utilization. It becomes easier for employees to move around based on the demands of different projects, with the benefit of a diversity of work settings which are not fixed by only a few working styles. Moreover, an environment of ABW is strongly believed by its advocates to assist the building performance in term of space utilization more efficiently than a traditional workplace.

3.1.2 The disadvantages of ABW

Apart from the claimed advantages of ABW, there are also many disadvantages that need to be considered. It is hard for staffs who like ownership of space to adapt to this new environment where there are no more personal desks, even though it is obvious that many of them sometimes works flexibly outside the office. There is a negative view on this issue that the future office will become a game of musical chairs. Besides, many people in the company, especially introverts, may feel that they are being treated unfairly when their privacy is taken away. It can be hard for them to get along with the idea of losing a permanent workstation and also the ability to personalize their own space. Some employees may find it frustrating to pack up and move around every day.

Figure 9 shows that the biggest barrier to ABW is pleasing the employees who prefer to have their own personal space.

![Figure 9: The rate of different level of barriers to ABW](image)

3.2 ABW CASE STUDY

3.2.1 Case study I - Spark, Auckland, New Zealand

3.2.1.1 Adopting ABW concept into Spark’s new building:

The new Spark headquarters, designed by Warren & Mahoney and Geyer (Australia) has won the Silver of DINZ Best Design Award Office and Workplace Environment in 2011. Since Spark transformed their working style toward ABW, the Warren & Mahoney/ Geyer team assisted Spark in
selecting Victoria Square as an ideal location and modified the buildings (base designed by Architectus Architects) in order to fulfill Spark’s business objectives. The design of the building adopted the ABW concept with the strategy: “One place. Many ways” and aims to provide employees a variety of choices on working zones that are tasks appropriate.

Figure 10 shows how the design team came up with their design strategy and solution to meet Spark’s business objectives and the ABW concept. With an approach to ABW, the business vision is ‘One telecom’ with three main strategies which are customers at heart, transforming people and place, and Kiwi spirit. Following these business strategies, the design strategy ‘One place. Many ways’ means providing an environment and spaces that demonstrate the oneness, openness and activeness of the organization. Moreover, it is visualized as a place to optimize connectivity and collaboration as well as show the Kiwi spirit of being courageous and approachable. Thus, connections became the design solution for the Warren & Mahoney/Geyer team. The original design, which was four separate buildings, was developed by Architectus. The design team decided to connect the four buildings by a generous public atrium and bridges. Importantly, the core of the design brief is to support a strongly collaborative and interconnected working environment. The connection between staffs and customers is also strengthened since the atrium is open to the public. Spaces that require more silence and privacy are placed in the four corners.
Figure 10: The design strategy and solution of Spark to adopt ABW concept.
3.2.2.1 The performance of The Spark building:

An important feature of this building is the central atrium that provides natural light and an indoor, outdoor connection. The building is connected by walkways with a common courtyard in the middle. This creates an active and social environment, which encourages more interactions in the building, a “campus like” atmosphere in a social hub. The open aspect also breaks down visual barriers between custom bushers and work areas with vistas up into work areas from the podium. The purpose of having more visual connection is to share Spark’s culture with all workplace user groups and visitors. Cladding material is mostly timber, the space also creating a natural ambience.

The use of bridges and walkways aims to encourage connections between floors vertically and across floors, also helping develop a culture of sharing workspaces and facilities, making every level accessible and co-shared.

The other main feature of ABW concept in the Spark building is a variety of spaces that encourage creativity, relaxation and casual interactivity, cross fertilization of ideas and a sharing of knowledge. As can be seen in Figure 11, the collaboration, meeting, break out areas are placed around the atrium while the focused work areas are in the four corners of the building.

Figure 11: The public atrium with bridges
Figure 12: A variety of spaces that encourage creativity and focus
3.2.2 Case study II - Macquarie bank, One Shelley Street, Sydney, Australia

3.2.2.1 The performance of the building:

One of the most successful ABW workplaces is One Shelley Street, Macquarie Group's new workplace in Sydney, Australia. The building was designed by Clive Wilkinson Architects and Woods Bagot in 2009.

In this building, the ten-storey atrium was opened and animated by 26 ‘meeting pods’, as a kind of celebration of collaboration, providing clear lines of sight through the financial business. The communal spaces on the first level are highly conducive to corporate and philanthropic events and include a café and dining areas. Employees no longer have their own desk. They are provided with a variety of spaces instead, which are specifically designed for their needs when performing different tasks, as Clive Wilkinson Architects mentions: “Within the office floors, we designed Plazas with themes based on ancient collaboration typologies: the dining table, the library, the garden, the tree house, the playroom, and the coffee house”\(^1\). This design philosophy encourages increased collaboration and a more productive mode of working. Moreover, the space operates with a higher intensity of usage (approximately 80%), rather than the typical 40% efficiency in traditional offices. The success of the building is mentioned by Jerry Yudelson and Ulf Meyer: “Through ABW, space efficiency is also improved in comparison to a traditional office environment; the same workforce can be accommodated in approximately 20 percent less total space”\(^2\).

The building has also proved one of the most impressive benefits of ABW concepts, which is environmental benefit. “Environmentally their new office building has reduce their carbon emissions by 60%. Paper usage has been reduced by 35% in the first year alone and 98% of the employees said they supported the cultural change embodied in the new workplace.”\(^3\) It was concluded from the successful performance of the building that ABW working allows a huge saving in resource efficiency, real estate and operating costs. The building reached a very high level of Green Star or LEED efficiency, benefiting from radical technologies like harbour water cooling, chilled beams and zone controlled lighting. Instead of water-intensive cooling towers, One Shelley Street uses water from Sydney Harbour for heat


rejection. In *The World’s greenest buildings*, the high-performance components of the building were listed as “passive chilled beams, 100 percent fresh outside air with no recycling or heat recovery, CO2 monitoring for fresh-air ventilation, energy monitoring, high-performance glass, extensive daylighting, low-flow fixtures, and provision for rainwater harvesting”\(^\text{16}\).

ABW is praised by its supporters for helping to bring out the high-performances of the building. However, it is obvious that not every key high-performance is as a result of the ABW concept, but comes from other factors, such as high technology materials. Nevertheless, based on the study on energy use in the building in *The World’s Greenest Buildings*, “the building uses about two-thirds more energy than predicted, which can be attributed to the extended operating hours. Nevertheless, the actual energy use is still an excellent result and well within the range of other world-class large modern office buildings.”\(^\text{17}\)

\(^\text{17}\) Ibid, 163
3.2.2.2 The focus on the requirements of different activities is shown in a range of different spaces in One Shelley Street building:

- **Limited numbers of workstations:**

  In ABW design, the number of workstations will be reduced and individual employee will not own a desk anymore. Similarly, in Macquarie bank building, employees can work anywhere they want. In different projects they need to change their locations to stay closer to their project team mates. This flexibility helps people save a lot of time rearranging their workstations. The limited number of workstations in the building also reduces the waste of space, because when someone is away from the office, that space will be filled in by another person.
Figure 16: Workstations in the corners of Macquarie bank building
Spaces for individual concentration:

Spaces for individual concentration in Macquarie bank building are well designed with shielded boundaries and located in the library area. The design intention is to offer people private spaces where they can concentrate to get their work done. The working booths are shared and available for people to schedule for short or long durations. For many staff who perform their tasks at a workstation most of the time, a small enclosed space may create discomfort due to feelings of confinement. However, the availability of individual concentration spaces and open plan workstations offers people more options for the type of atmosphere they need to get their work done.
<table>
<thead>
<tr>
<th>Activity/Function</th>
<th>Number of people</th>
<th>Boundary</th>
<th>Characteristic</th>
<th>Other characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working booth</td>
<td>1</td>
<td>Shielded</td>
<td>Level of Privacy</td>
<td>Quiet</td>
</tr>
<tr>
<td>Phone booth</td>
<td>1</td>
<td></td>
<td>Visual</td>
<td>Sound</td>
</tr>
<tr>
<td>Library</td>
<td>many</td>
<td>Open</td>
<td>Less visual connection</td>
<td>Minimum negative distractions</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(No see-through/ transparent)</td>
<td>High technology</td>
</tr>
</tbody>
</table>
Spaces for collaboration & communication:

Collaboration and communication areas in the Macquarie building contain a range of spaces such as team working area, training rooms and a variety of meeting rooms.

For the collaboration area, the idea is to create an atmosphere that encourages people to interact and share knowledge. As Gideon Haigh writes: “Not every meeting need to be scheduled, or formal, or even a meeting per se – an encounter can do just as well, and a word in the right ear at the right time is worth any number of lengthy sit-downs and detailed briefings.” 18 In the Macquarie building, the collaboration zone contains a variety of spaces in terms of size and surrounding environment. It offers people a lot more options for effective time collaborating with team mates or clients.

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18 Haigh, The Office, 333.
<table>
<thead>
<tr>
<th>Activity/Function</th>
<th>Number of people</th>
<th>Boundary</th>
<th>Characteristic</th>
<th>Level of Privacy</th>
<th>Other characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversation booth</td>
<td>&gt;=2</td>
<td>Shielded</td>
<td></td>
<td>Less visual connection</td>
<td>Less sound distraction</td>
</tr>
<tr>
<td>Team working</td>
<td>2-4</td>
<td>Open</td>
<td>Visual connection</td>
<td></td>
<td></td>
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<td>Activity/Function</td>
<td>Number of people</td>
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<tr>
<td>Small meeting room</td>
<td>4-6</td>
<td>Enclosed</td>
<td>Visual connection to outside</td>
<td>Visual</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acoustic control</td>
<td>Sound</td>
<td></td>
</tr>
<tr>
<td>Big meeting room</td>
<td>Many</td>
<td>Enclosed</td>
<td>Formal</td>
<td>Present for company's culture</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>High technology</td>
<td></td>
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<tr>
<td>Big conference room</td>
<td>&gt;=6</td>
<td>Enclosed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 20: Collaboration spaces
Figure 21: Big meeting room on each floor

Figure 22: Big meeting pods
Figure 23: Small meeting pods
Spaces for chilling out:

Chilling out spaces are both for relaxing and working. The idea is to offer an option for those who prefer working in a relaxing atmosphere. In Macquarie bank building, the architects designed a variety of spaces which give a joyful, relaxing and welcoming feeling. Importantly, the design of spaces for brainstorming or thinking pods is developed with the aim of providing staff a more suitable environment to concentrate on their ideas, but maintain the visual connection to outside.

Figure 24: Chilling out spaces are positioned at the junctions where people are encouraged to share and interact.
<table>
<thead>
<tr>
<th>Activity/Function</th>
<th>Number of people</th>
<th>Boundary</th>
<th>Characteristic</th>
<th>Other characteristics</th>
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<td></td>
<td></td>
<td></td>
<td>Level of Privacy</td>
<td>Other characteristics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Visual</td>
<td>Sound</td>
</tr>
<tr>
<td>Canteen/Cafeteria</td>
<td>Many</td>
<td>Open</td>
<td>Visual connection</td>
<td>Informal</td>
</tr>
<tr>
<td>Brainstorming</td>
<td>1-10</td>
<td>Enclosed</td>
<td>Visual connection with other spaces (transparent)</td>
<td>Quiet, Acoustic control</td>
</tr>
<tr>
<td>Break out spaces</td>
<td>Many</td>
<td>Open</td>
<td>Visual connection</td>
<td>Informal</td>
</tr>
</tbody>
</table>
Figure 25: Canteen and cafeteria in Macquarie building, One Shelley Street

Figure 26: Thinking pods
Figure 27: Break out spaces
4.1 SOFTWARE DEVELOPMENT PROCESS

“Software development is the process of developing software through successive phases in an orderly way. This process includes not only the actual writing of code but also the preparation of requirements and objectives, the design of what is to be coded, and confirmation that what has been developed has met the objectives. Before systems development methods came into being, the development of new systems or products was often carried out by using the experience and intuition of management and technical personnel. However, the complexity of modern systems and computer products long ago made the need clear for some kind of orderly development process clear.

Typical phases of software development:

• Identification of required software
• Analysis of the software requirements
• Detailed specification of the software requirements
• Software design
• Programming
• Testing
• Maintenance

The systems development life cycle (SCDLC) model was developed as a structured approach to information system development that guides all the processes involved from an initial feasibility study through to maintenance of the finished application. SDLC models take a variety of approaches to development.”19 Figure 28 shows the most two popular models of the software development process.

Figure 28: Waterfall model and Prototyping model - the most popular models in Software Development Process
4.2 ABW in a software development company

Case study III: Microsoft headquarter in Amsterdam, Netherlands

Since the birth of the ABW concept in the Netherlands, Microsoft has been implementing a company-wide ABW transformation by testing new ways of thinking about work. After its headquarter near Schiphol, Amsterdam, Netherlands was completed in 2008, Microsoft became one of the first organizations globally to adopt new more flexible work methods, including ABW. Many of its offices around the world were redesigned with the ABW concept. Microsoft’s Schiphol headquarters was redesigned by Sevil Peach and Veldhoen+Co., the new building being smaller than the old one in order to save costs and reduce the office footprint. Importantly, the new office has no assigned desks and no private offices for senior employees. As can be seen in Figure 29, staff are given lockers in which to store their personal belongings. In a case study on Schiphol headquarter it is claimed: “The new building, which opened in April 2008, has no assigned desks and requires only 95 square feet (or almost 9 square meters) per person, roughly half the amount of space typically allocated to white-collar employees in office buildings. This efficient use of space slashed real estate costs by 30 percent and saved the subsidiary $644,000 a year”. Many other facilities such as concentration booths, individual work carousels, work lounges, teamwork benches and a variety of types of meeting rooms are also provided. The office layout actually also gives the company a chance to actively show off the flexibility of their software in a working environment. Everyone uses a laptop, and the space has no fixed phones at all, with Vodafone and Microsoft’s Enterprise Voice solution providing converged telephony and messaging that is delivered to a person, not a desk. The workplace is almost paperless, “people now printing on average only one page each per day – a huge reduction from an average of 80 pages, per person per day,” as Philip Ross, the CEO of Cordless Group, mentioned in a report of Microsoft.

Figure 29: Personal lockers in the building.

The layout of the building is designed to maximize collaboration and communication. Beyond work, employees are also given opportunities to mingle and relax by using another set of office design spaces such as cafeteria, relaxation zones and sleep pods. Transparency and open access to information is highly valued.
Figure 30: The working floor plan of Microsoft headquarters, Netherland.
Figure 31: Interiors of Microsoft headquarters building, Netherlands.
However, the flexible way of working also creates a high risk of imbalance between work and life, especially for IT employees. Generally, Microsoft already had many cases of burn out among employees in the past even though the organization motto when hiring new people always is “work life balance”. A culture of wellness and balance are the benefits that Microsoft state in their official website: “Our goal is to empower you with the resources, incentives, and flexibility you need to enjoy success on the job and to live a healthy, balanced life.”

There is also a negative view on the flexibility that the company offers to staffs. It has always been hard when working in a traditional way with deadlines and competitive environment in such a big company like Microsoft. Now it seems to be much harder with flexible ways of working when people need to manage their own time. Flexibility at work means flexible timetables and places to work which also means that sometimes people’s work and daily life activities get mixed together. Having so much individual freedom can lead to problems. Stress and dissatisfaction caused by new type of working can rarely be avoided. As Michael L. Brundage, a full time software design engineer at

Microsoft claimed, based on his own working experience: “Microsoft adds jobs that are very mentally challenging, sometimes aggressive product schedules, a campus that's a bit isolated (and isolating) from the outside world, and voilá — you’ve got all the ingredients for poor work/life balance.”


EASTERN PHILOSOPHIES ON HAPPINESS AT WORK
5.1 HAPPINESS AT WORK

In English and many languages, there is not one word for “Happiness at Work”, but this word actually exists in some languages. The Danish word “arbejdsglæde” is one example. (arbejde meaning work and glæde meaning happiness). When mentioning “Happiness at Work,” it seems to always be about motivation, or job satisfaction, but “arbejdsglæde” means more than that. It means the workplace is a great place and everyone looks forward to coming to work.

As the human factor becomes much more important in organizations, the meaning of working is believed to be creating a better life, not sacrificing life to work. However, the fast pace of modern life also requires people to work harder and faster. As Howard Cutler mentioned in his conversation with the Dalai Lama, “The concept of work overload isn’t some obscure American custom, or even something unique to Western culture. After all, the Japanese have even coined the word karoshi - death by work overload.”

There is a very common idea that success leads to happiness. However, recent discoveries in psychology and neuroscience show that this formula is actually backward: happiness fuels success. When we are positive, our brains are more motivated, engaged, creative, energetic, resilient, and productive.

The link between happiness and success was investigated by a group of researchers from the University of California Riverside, led by Professor Sonja Lyubomirsky. In their paper they mention the result of their survey that the benefits of happiness include “superior work outcomes (greater creativity, increased productivity, higher quality of work, and higher income; e.g., Estrada, Isen, & Young, 1994; Staw, Sutton, & Pelled, 1995), and more activity, energy, and flow (e.g., Csikszentmihalyi & Wong, 1991)”  

Lyubomirsky also points out: “The literature, my colleagues and I have found, also suggests that happy individuals are more creative, helpful, charitable, and self-confident, have better self-control, and show greater self-regulatory and coping abilities”. The importance of happiness at work is not a

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recent issue. Many scientists and leaders in the world have studied and written about it.

Shawn Achor says that “happy workers have higher levels of productivity, produce higher sales, perform better in leadership positions, and receive higher performance ratings and higher pay. They also enjoy more job security and are less likely to take sick days, to quit, or to become burned out. Happy CEOs are more likely to lead teams of employees who are both happy and healthy, and who find their work climate conducive to high performance. The list of the benefits of happiness in the workplace goes on and on”. 27 Achor claims that happiness will lead to best result in nearly every domain of our lives, including our careers and businesses.

Apart from the benefits in outer life, from a spiritual viewpoint, in Eastern philosophies in particular, the meaning of our lives is to seek happiness. How to make “Happiness at Work” should always be a priority. The Dalai Lama and Cutler both agreed that “in all human activities, whether it is work or some other activity, the main purpose should be to benefit human beings. Now, what is it that we are seeking in our work, what is the purpose of work? Like any other human activity, we are seeking a sense of fulfillment and satisfaction and happiness.”28

Importantly, the meaning of happiness in ancient Eastern philosophy is not productivity, job satisfaction or any types of outer successfulness; but the inner happiness, and inner freedom which are believed to be permanent. After the conversation with Dalai Lama, Cutler pointed out the different views of the West and the East on Happiness at Work. The Eastern concepts is that the purpose of life is happiness, that happiness is determined more by the state of the human mind than by external conditions or circumstances. In the West, “the primary meaning of happiness in various European languages involves good fortune, chance or happening”29. Martin Seligman presents Western thought as defining “happiness” by three measurable components which are pleasure, engagement, and meaning.30

With globalization, the mixture of Western and Eastern cultures and philosophies becomes more and more unavoidable, especially in workplaces. The Western mind


28 Dalai Lama and Cutler, The Art of Happiness at Work, 37.
invests in the new concept of how to support people’s performances at work as well as the comfort of all facilities, while the Eastern way is to go deeper into the heart by guiding people toward the peaceful, joyful life which is aimed to last longer. It is undeniable that productivity or financial benefit seems to be the standard means to assess a business, while human happiness is the most important thing in life. Since there is no right or wrong for either Western or Eastern thought, the only way to achieve the Happiness at Work to a certain level is to reach a balance, using the strengths of both methods to supplement each other’s weaknesses.

5.2 THE WAY EASTERN PHILOSOPHIES DEFINE THE SOURCE OF ALL PROBLEMS

At the root of human suffering, ancient Eastern philosophies name three destructive impulses: ignorance, attachment, and aversion. They are also called the “three poisons” in Buddhism. There are seen as being the essence of all the delusions and negative forces that impede the realization of our full potential for happiness and creativity.

5.2.1 The problem of Ignorance (or Confusion)

According to Buddhism, the root cause of our unenlightened existence within this cycle of rebirths is said to be our fundamental ignorance: our grasping at a sense of self. The word for “Ignorance” in Sankrit – moha - is also translated as “confusion” or “delusion” which “is an active misapprehension of the nature of things.” 31 “Ignorance” refers to willful unawareness of reality, or the true nature of life and the cosmos. Among the problems, ignorance is considered as the most fundamental.

As the Dalai Lama explains: “Through ignorance what we see around us seems to exist independently, without depending on other factors for its existence, but this is not the case.” 32 By not recognizing the impermanence of material world, people tend to always grasp outwards. We also do not realize our inner interconnection, and we identify always with this sense of self or other. Editors Christopher Key Chapple and Mary Evelyn Tucker write that “For the most part, the worldviews associated with the Western Abrahamic traditions of Judaism, Christianity, and Islam have created a dominantly human-focused morality. Because these worldviews are largely anthropocentric,

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32 Ibid, 30
nature is viewed as being of secondary importance,”\textsuperscript{33} while “Hindu theology engages the world as a creative manifestation of the divine. This same tension between withdrawal from the world and affirmation of it is present in Buddhism,” and the East Asian traditions of Confucianism and Taoism share the same idea of “interconnection between the divine, human, and natural worlds.”\textsuperscript{34}

Ignorance drives people to ceaselessly search for the fulfillment of their desires even at the cost of others. It can lead to uncontrolled rage, and even misery, when one’s desires are not fulfilled. Therefore, in ancient Eastern philosophy, the deluded impulse of ignorance is considered correlative to a fundamental egocentrism which can be blind and self-destructive.

5.2.2 The problem of Attachment

Tenzin Palmo, one of the first Westerners to be ordained as a Buddhist nun in the Tibetan tradition, emphasized: “We are like hamsters in a wheel. We are constantly running on this treadmill, working hard and exhausting ourselves but getting absolutely nowhere, because no matter what we have, there is always something else more.”\textsuperscript{35} The Dharma Wheel, or the Wheel of Law, is the symbol of Buddhism. The circle symbolizes ‘samsara’, the repeating of a cycle of birth, life, death and reincarnation. Eight spokes symbolize the ability to liberate from ‘samsara’ or cut through all attachments, obstacles and illusions by following Eightfold Path from Lord Buddha’s teaching. In Buddhism, it extends to the idea that existence is a continuous cycle of growth and decay. Thus, attaching or clinging to materialism can lead to suffering.

In the workplace, attachment is the problem that relates to the employees’ dissatisfaction about not owning a space and their disappointment when things do not come out as they wanted. Attachment at work also means people feel difficulty in separating their work and their personal life. Many people frequently work until late at night, or bring work home over the weekend and holidays.


\textsuperscript{34} \textit{Ibid.}, xxvi

\textsuperscript{35} Tenzin Palmo, \textit{Into the Heart of Life} (Sydney: Allen & Unwin, 2011), 34
5.2.3 The problem of Aversion

Aversion is the matter that combines from all of the troubles such as stressful work, lacking of privacy, issue of sharing spaces, unwanted results at work and so on. When employees feel disengaged from the organization, they tend to have a feeling of being abandoned or being forced to adapt to a strange and unfriendly environment. Especially, many people feel that they are pushed into too much interaction without private space to focus on individual work. The speed of incoming information in this technological era also exaggerates the distraction at work. It can not be a healthy and inspiring working environment when people have so many negative emotions.

There are some selected principles that address the problems as listed below.
### 5.3 SOLUTIONS IN EASTERN PHILOSOPHIES

The solutions for the “three poisons” in Ancient Eastern philosophies:

<table>
<thead>
<tr>
<th>Problems</th>
<th>Solution</th>
<th>Buddhism</th>
<th>Hinduism</th>
<th>Taoism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignorance</td>
<td><strong>Simplicity</strong></td>
<td>Simplicity</td>
<td>Purity</td>
<td>Harmony with Nature</td>
</tr>
<tr>
<td>(or Confusion)</td>
<td></td>
<td>Purity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attachment</td>
<td><strong>Detachment</strong></td>
<td>Austerity</td>
<td>Purity</td>
<td>Austerity</td>
</tr>
<tr>
<td>Aversion</td>
<td><strong>Tranquility</strong></td>
<td>Wabi-sabi (Zen Buddhism)</td>
<td>Oneness with Nature</td>
<td>Harmony with Nature</td>
</tr>
</tbody>
</table>

#### 5.3.1 Simplicity

In Buddhism, the life story of The Buddha states the beauty and meaning of Simplicity. Lord Buddhas was once a prince who could not get true happiness from a luxurious life so he left the throne and searched for the truth of life. He searched for it everywhere outside himself and spent almost six years in vain. At the end he settled down in Bodhgaya, and fully practiced meditation. Then he realized that what he had been searching for was inside himself; there was nowhere to search, nowhere to go and no self. On the dawn of Vesakha day, he became enlightened. Since then he has been known as the Buddha, a great teacher of the world, and he started delivering this way of life to the world. The way of life which is the simplicity and purity.

In The Taoist Experience: An Anthology: “All clinging and attachments - Have nothing to do with the Tao”. In the Taoist view, having things is essentially passive. It is believed to require no effort and to not help us making any progress. Only by practicing simplicity and expanding our relation to Nature can our joy be deepened. It means that

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36 Samuel Bercholz and Sherab Chodzin Kohn, eds., The Buddha and His Teachings (Boston: Shambhala Publication,1993), 3-42
simplicity or purity is a solution in order to avoid all the distractions of the sensual experience which serves as the basis for human experience of afflictions. Also, creating a connection with Nature, the outer environment and other people, can be a solution which would help people reducing negative emotions at work.

### 5.3.2 Detachment

The Hindu view of Detachment comes from an understanding of the purity in the true sense of the world; the true ultimate state sought is that of being in the moment. In other words, while one is responsible and active, one does not worry about the past or future. The detachment is towards the result of one’s actions rather than towards everything in life.

In Buddhism, Detachment is also known as “letting go” or non-attachment. It is believed that since all things are impermanent, detachment is the only logical attitude one can have towards material things, our bodies, and even life itself. Clinging to the things of this world which are in constant transition is an impossible task. The key to Buddhist practice is to let go of the mental baggage that most of us carry around. The uncluttered, peaceful mind, a mind that is simple in that precise sense, is the essential quality of the Buddhist mind.

Detachment in Eastern philosophy gives us the capacity to concentrate completely while on the job and to drop our work completely when we walk out the door. A detached worker is a reliable worker, a cheerful worker, a harmonious worker. It is believed that when you can drop your work
completely at the end of the day, you arrive home ready to give all your love to your family and friends. You feel fresh, relaxed and inspired to focus on work in the next day.

Once we learn to practice detachment, our inner life can become simpler. We still experience desires, thoughts, memories, and so on, but they are no longer the burdens that can make us unhappy. Detachment does not mean that we have no desires, values or goals. Essentially, detachment expresses the idea that we can accept things come and go in life without being psychologically dependent on any particular situation or outcome.

5.3.3 Tranquility

Oneness with Nature, harmony with Nature and the freedom of perfection (see Table above) coming from Hinduism, Taoism and Buddhism all share the same approach to tranquility. In Taoist Experience: An Anthology edited by Livia Kohn, there is a scripture of Tranquility: “Movement – the root of tranquility”\(^{38}\). The figure shows the symbol of the Tao, a circle enclosing two equal parts, is called Yin Yang. The outside circle represents the universal Tao, the “way” or “path” associated with a life lived in harmony with the cycles of change.

In Sankrit, the equivalent of “peace” is “shanti,” which means the state of inner tranquility, or mentally and spiritually at peace. It also stands for the enlightened condition sometimes referred to as “nirvana.” With respect to the state of inner peace, in Buddhism, it is believed that tranquility, or peace of mind, can come after people transcended hatred, greed and ignorance.

\(^{38}\) Ibid,25.
5.4 EASTERN PHILOSOPHIES THROUGH SELECTED EASTERN DESIGN PRINCIPLES

In Zen Buddhism, there are aesthetic principles that present the Buddhist philosophies in a very practical way. These principles are listed by Matthew May as being simplicity, stillness, openness, natural, non-routine, subtlety, austerity.\(^{39}\) These Zen principles along with the concept of Harmony and Oneness with nature from Hinduism, Taoism and Confucianism will become the design approach so as to support the ABW concept in designing a new office for a software company.

5.4.1 The principle of Simplicity

In Japanese Zen Buddhism, a word for Simplicity is Kanso which means eliminating senseless clutter in favour of something that is more natural and plain. Similar to the way in which modern design follows minimalist patterns, Kanso diverges from elaborate details and decorations in pursuit of clarity.

The spirit of Simplicity is strongly expressed in Zen garden design by simplest lines of gravel or sand, and restricted colors.


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Figure 34: Zen simplicity of basic shape, lines and limited number of colours

“Kanso dictates that beauty and utility need not be overstated, overly decorative, or fanciful. The overall effect is fresh, clean, and neat.”\(^{40}\)

The spirit of Simplicity is strongly expressed in Japanese Zen garden design by simple lines of gravel or sand, and restricted colors. The garden design of Ryogen-in is one of the best examples with an intense and restricted color palette based on green, gray, and white-yellow tones. Ryogen-in is one of the sub-temples of Daitoku-ji temple, a Buddhist temple and one of fourteen autonomous branches of the Rinzai school of Japanese Zen in Kyoto, Japan. As can be seen in Figure 33, the garden of Ryogen-in contains few colors, but the colors are controlled and restricted effectively to maximize dramatic effect and harmony. Also, a limited set of plants has been considered as the fundamental principle since Zen gardens are characterized by their rarefied palate, produced by a limited set of design

\(^{40}\)Ibid, 38.
elements, which includes plants. Lastly, the sand surrounds the moss island in circular and lined patterns. The desirable method of appreciating Zen gardens is walking, stopping, and meditating.

In Figure 35, the Zen principle of Simplicity is shown in the design of Chinodanoyori dental clinic in Gunma, Japan by Japanese architect Hironaka Ogawa.

This sense of openness creates a fluid movement between the indoor and outdoor space. Instead of having clearly delineated spaces for each, Japanese architecture links the inside and outside as a continuous element.

![Figure 35: Dental clinic designed by Hironaka Ogawa with Zen principle of Simplicity](image)

5.4.2 The principle of Naturalness & Wabi-Sabi

The goal of Naturalness in Buddhism (or “Shizen” in Japanese) and Wabi-Sabi in Japanese Zen Buddhism is to honour the beauty of imperfection and profundity in earthiness.

It is believed that, although everything seems to be spontaneous and accidental in Nature, it all happens for a reason. Concepts such as transience and imperfection are all manifestations of the universal law which rules the flow of life. It is the principle of change, the awareness and acknowledgement that nothing is eternal and nothing is perfect. To accept imperfection in the changes and spontaneity of outer objects is to reach the eternal perfection of inner life. Thus, precision and finiteness are at odds with Nature. By contrast, a design with rough textures and natural materials can create a peaceful, relaxing and welcoming atmosphere.

Conclusion on the design principle of Simplicity:
- Shape: basic shape of geometry
- Minimalist furnishings and possessions
- Colour: limited number of colours, clear contrast between colours
- Lighting: diffuse light, soft, indirect lighting
In Zen Buddhism, Wabi-Sabi is not only about the rustic beauty, but also is the idea of showing the marks of passing time. The idea is to emphasize that everything in this material world must experience Nature's cycle of growth, decay and erosion.

In terms of meaning and intention in Zen design, a Zen garden is considered to be a collection of subtleties and symbolic elements which symbolize nature. Subtle elements in a Zen garden mean to show more by showing less. For example, in a Zen garden, the elements of water, stones and plants are represented by gravel and rocks. Ocean water is represented by lines of gravel or sand; stone is the symbol of all that exists in the natural world. After all, subtle elements in Zen are considered as the spark of imagination, inspiration and motivation for people to move on with their actions or decisions.
Conclusion on the design principle of Naturalness & Wabi-Sabi:

- **Shape:** organic shape, limited processed objects, freedom of form.
- **Materials:** natural materials that show the passage of time.
- **Texture:** rough texture.

### 5.4.3 The principle of Oneness with Nature

One of the important techniques used in Zen Buddhism garden is “borrowed scenery.” The Japanese call this technique “capturing alive.” It is believed that “when something is borrowed, it does not matter whether it is living or not, but when something is captured alive, it must invariably remain alive, just as it was before it was captured.”

In this technique, manmade and natural scenic elements from outside the garden, such as lanterns, pagodas, mountains, are “borrowed,” or “captured alive,” inside the garden’s walls, becoming an integral part of the garden. So, a clay wall usually high enough to contrast with the azaleas in the ground, but also low enough to allow for the outside scenery to appear in the background is an integral part of the garden. This technique, therefore, overcomes mental and spiritual limitations. “If the body cannot move toward the scenery, the landscape must be brought to the body.”

The Zen garden is intended to be viewed from specific viewpoints, to calm the mind. As the Zen master Masuno says, “you gaze upon the garden as though it is a picture.” It is a tool of concentration when meditating.

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Figure 39: Forest and mountain as background in Shodenji, garden, Japan

Figure 40: Shodenji garden with no background and with a city life background.
Similarly, in Hinduism, the Oneness with Nature is one of the most important principles since only by worshipping Nature can people learn how to be happy and appreciate what they have in life other than craving for more and more possessions and outer fulfilments. According to the design principles of Vastu Shastra, the traditional Hindu system of architecture, every building is a conception of the ‘Cosmic Being’ with the heart centre being the most sacred space, usually designed as an open space with more natural light and air. This sacred space in a Hindu traditional house usually is a courtyard garden. Vastu Shastra system considers natural forces to be part of the Cosmic Being and provides guidance on constructing buildings in harmony with Nature. Ilay Coopers and Barry Dawson write about Vastu Shastra in India architecture saying: “each building plot contains a vastu purusha, a spiritual force, visualized as a male form crouched over the plot, head pointing northeast, feet southwest. The centre of this spirit, nucleus of the site, is a projected building’s heart. In a temple this is marked by the garbha griha (sanctum). In a house it is occupied by the courtyard, the most sacred and private space”. As can be seen in Figure 41, the conception of the ‘Cosmic Being’ is shown by a drawing of a man inside the square. The square is literally the fundamental form of sacred architecture in India. The middle part of the drawing, the heart position is the sacred space.

44 Ilay Cooper and Barry Dawson, *Traditional Buildings of India* (London: Thames and Hudson Ltd, 1998), 14
In India, the green courtyard with open air, sun light and trees can be seen everywhere from houses to sacred buildings. Figure 40 shows the dharamshalas, or sarais, which are built by philanthropists as temporary shelters for caravans. The building offers a green courtyard as the most important and special space, with a big tree to provide shade for travellers and their camels, bullocks or sometimes even elephants. The concept of Oneness with Nature is presented well in a simple building like the dharamshalas.

In Hindu temples, similarly to the technique of “borrowed scenery” in Japan, natural scenery is considered to be a part of the building.
Conclusion on the design principle of Oneness with Nature:
- Nature as an indispensable part of the building.
- Nature in a heart center of the building.
5.4.4 The principle of Break from the Routine

This principle describes the feeling of surprise and amazement when in a Zen garden. Many surprises wait at almost every turn in a Japanese Garden. It is believed to help people realize that they can have freedom from the conventional, as Buddhist philosophy is about liberation from attachments and sufferings.

Figures 43 and 44 show one of the most famous Zen gardens in Japan, Ryogen-in garden. In the design principles of Zen, the principle of Simplicity, Wabi-sabi and Break from the Routine, always go together with the contrasts that are presented in shapes, materials and colours. As Mark Morris says, "The garden is designed to contain “emptiness” and its that emptiness that gives the garden its meaning, and allows the mind to dwell in the space. With that emptiness, an element of tension is introduced, and that tension focuses the mind."445

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Conclusion on the design principle of Break from the Routine:
- The combination of Simplicity, Wabi-sabi and Surprise factor in the design.
- Shape, material & colour: clear contrast between surprise factor and simplicity.
5.4.5 The principle of Stillness & Tranquility

The purpose of creating a tranquil atmosphere is to offer people a space where time seems to slow down or even stop. It helps their mind to be relaxed, refreshed and more concentrated while doing some particular work.

A Chinese garden which contains Taoist philosophy usually follows this approach in its design. As Bianca Maria Rinaldi writes, “Chinese Gardens are slow. Like films, their effects are built through a sequence of different scenes and settings; separated by screens, walls and doorways, theirs is an unfoldment, a revelation by degrees. Chinese Gardens are never perceived in their entirety.”

Similarly, energized calm (quiet) and solitude are the feelings that is expressed in a Zen garden. In Zen applied modern design, tranquility sometimes stands for the need to create a quiet and isolated corner where people can hide themselves to achieve calm, peaceful and to focus. A little entrance would be a gateway to such an isolated corner.

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Figure 51: Yu Yuan, "Garden to Please" in Shanghai.
Conclusion on the design principle of Stillness & Tranquility:
- The design of quiet and tranquil corner separated by a little trance, a screen or a doorway.

Figure 52: Kobayashi, inner courtyard garden

Figure 53: Tranquility in Zen Buddhism meditation
DESIGN PROGRAM
With the aim of unifying the Western concept of ABW together with Eastern philosophy on happiness in the design of future workplace, the program for this architectural project is a new office for a software development company in New Zealand.

New Zealand is internationally renowned for its entrepreneurial, creative and innovative edge. In fact, 2012’s Global Innovation Index 2014 ranked New Zealand 18th in the world \(^47\) and, with a flurry of recent success stories, software development in New Zealand has rapidly become a beacon of modern innovation.

6.1 UNLEASHED SOFTWARE DEVELOPMENT COMPANY

Design a new head office for Unleashed Software Company in Auckland.

Client: UNLEASHED Software Company, New Zealand.

Growing steadily since its birth in 2009, Unleashed has now grown from 5 people to over 40 staff members today. The main office is currently located in Takapuna, Auckland.

6.2 USERS – 4 DIFFERENT PEOPLE TYPES AT UNLEASHED COMPANY

According to recent research from Martela, one of the Nordic leaders in the office interior industry, there are four different of personality types usually found in any organization. In Unleashed Software, these four personality types are also to be found. As described by their habits at work, they are Anchors, Connectors, Collectors and Navigators.\(^\text{48}\) The details on their habits at work are based on the research of Martela and informations from Unleashed staffs.

The Anchors:

- They spend all day in the office.
- Apart from team discussions or meetings with clients, they prefer doing most of their individual work staying at the same desk all the time.
- Since their tasks require concentration, they prefer no distractions in their surroundings, but also require peaceful and inspiring atmosphere.
- Most of them are introverts who can work more effectively in a quiet environment.
- Their role is to provide “an important communications link for other information employees because of their continuous presence”.

In the IT field, the program developers and testers are usually Anchors. Whilst Unleashed provide hot-desking for program developers and testers, they still prefer to stay in the same spot every day. They only change their spot when they are required to team up with different members. The team will usually be re-organised each time they start a new project.

The ideal environment for them to work is a space that has a minimum of negative distractions. The space should also offer a calm and peaceful atmosphere, helping to prevent stress and depression.

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49 Ibid.

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Figure 57: Anchors’ requirements for their working spaces.
Figure 58: One day working of an Anchor at the office
The Connectors:

- They spend half their working days in different premises of the organization.
- They enjoy interaction and collaboration, but sometimes require space to concentrate.
- They enjoy changing spaces to work on different tasks.
- Some of them are neutrals and some are extroverts.

The connectors are usually team leaders, product development manager and employees whose work is based on effective interaction with people in charge of production lines.

Figure 59: Connectors’ requirements for their working spaces.
Figure 60: One day working of a Connector at the office
The Collectors:

- They spend at least half of their working week in meetings with customers, attending conferences, doing research outside the office. From their work trips, collectors bring important information, business and new contacts to the office.
- They are constantly on the move and in constant communication with others.

The ideal working environment for them is to provide a range of different spaces for their different daily tasks, especially spaces for communicating with clients or their team mates. Hot desks and shared worksites with mobile devices and wireless technology are the best options for them since their working schedules are very flexible. In order to allow them the high concentration when they need to get work done quiet and isolated space would be very important.

Figure 61: Collectors' requirements for their working spaces.
Figure 62: One day working of a Collector at the office
The Navigators:

- They only spend a limited time in the office since their work often includes playing a role in international networks.
- They prefer working in the places with a relaxing atmosphere, such as the cafeteria, chilling out area or garden.

In the organization, people with extensive responsibilities are usually Navigators.

*Figure 63: Navigators’ requirements for their working spaces.*
Figure 64: One day working of a Navigator at the office

- meeting with clients
- working outside the office
  - on work trips
- individual work
- conference
  - presentation
- chilling out

- Key person of organisation
  - someone has extensive responsibilities

personal office
SITE ANALYSIS
The site of choice for a new head office of Unleashed is on no 68-70, Upper Queen Street in Auckland. Although this area is only about 1km away from Auckland CBD, it is a relatively quiet and peaceful environment. The site is surrounded mostly by offices, showrooms and some private houses. The site is selected firstly because of its attractive location. It is easily accessible from Karangahape Road, Queen Street, Symonds Street, and especially is only few minutes away from the North Western Motorway. It is also in the area that many startups and technology companies are situated which creates a bigger pool of potential employees and investors, as well as more technology meetups and related events for the company.

- Location: 68-70 Upper Queen Street, Newton, Auckland city, New Zealand.
- Total area of the site: 640m²
- Public carparks nearby. As can be seen in Figure 67, there are several public carparks within walking distance of the site. The nearest one is Tournament Parking, only 85 metres away from the site towards the North.
Figure 65: Location of the site in Upper Queen Street, Auckland.
Figure 66: Functions of surrounding buildings.
Figure 677: Public carparks in walking distance from the site.
Figure 68: Site analysis
The site slopes downhill towards the Northwest. There is one existing building on the site which used to be City Preschool. The site is between two private houses which have an average height of two storeys.

Figure 69: Average height of buildings and housings around
DESIGN PROCESS
8.1 ABW CHECKLIST

The ABW office space can first be divided into four main areas for activities: concentration, communication, collaboration and chilling out.

The concentration area contains spaces that have boundaries, or may even be enclosed, in order to allow employees to work alone or together in a concentrated manner.

The communication area contains different acoustically limited spaces and rooms for informal and formal meetings. It can be open or closed, standing or sitting options.

The collaboration area contains a variety of work spaces, such as team working area, training room etc., in an open or closed structure which creates an environment for employees working and sharing in a creative manner.

The chilling out area contains spaces that offer people a relaxing atmosphere.

ABW office check list:

<table>
<thead>
<tr>
<th>Spaces/ Zones</th>
<th>Concentration/ Individual</th>
<th>Communication</th>
<th>Collaboration</th>
<th>Chilling out</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workstations</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meeting areas</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Meeting rooms</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Breakout spaces</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Brainstorm spaces</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quiet spaces</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Room Type</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Phone booths</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Video and Teleconferencing facility</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assembly room</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Board room</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training rooms</td>
<td></td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pantries</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Dining room</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Cafeteria/Canteens</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Relaxation space</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Entertaining space</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reception and lobbies</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Copy and mail room facilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Locker areas</td>
<td></td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Storage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technician room</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toilets/bathrooms</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 70: Idea sketch for the principle of Break from Routine.
Figure 71: Idea sketch for the principle of Tranquility
DESIGN OUTCOME
9.1 ABW ZONING

Analyzing the quality of the different spaces: the ground floor is the public and semi-public zone, while the upper floors are the private working areas of the organization. When it comes to the four typical zones of ABW workspace, the ground floor which contains the reception, atrium, multi-function room and kitchen is planned for communication and chilling out zones. The private working floors contain collaboration and concentration zones where staff are given more private and quiet spaces to work without being involved with activities and interaction with the public.

Figure 73: Public, Semi-Public and Private zones
**Figure 74: Four zones in ABW workplace**
Focusing on activities at work, the office layout starts with the working model of a technology company, especially the Waterfall and Prototyping models in Software Development Process (as mentioned in Chapter 5). The layout of the working floors has a team working area in the centre surrounded by individual workstations and meeting rooms. There are six concentration rooms in the back of the building where people can highly focus on their work without any unwanted distractions.

Figure 75: Layout plan based on the working model.
Figure 76: Ground floor plan

1. Entrance
2. Reception
3. Chilling out area
4. Toilet
5. Bicycle parking
6. Dry garden
7. Garden
1. Personal lockers
2. Brain storm room
3. Team work area
4. Workstations
5. Print/Copy station
6. Toilet

Figure 77: Plan level 5.200
1. Personal lockers
2. Meeting room
3. Team work area
4. Workstations
5. Print/Copy station
6. Phone booth
7. Concentration room
8. Kitchen
9. Toilet

Figure 78: Plan level 7.400
Figure 79: Axonometric view shows functions and circulation.
Figure 80: Section A-A

Figure 81: Section B-B
9.3 COMMUNICATION ZONE

9.3.1 The entrance garden

Oneness with Nature

The entrance of the building is designed with the aim of creating a peaceful and welcoming atmosphere for people entering the building. It will also contribute to the environment of the whole street, but in a humble way in order to respect the neighbors' appearances. The view from outside to the entrance garden is revealed through holes cut in the external wall.

Figure 82: View from entrance garden (hand sketch)
9.3.2 Reception

Simplicity

The reception area on the ground floor is intended as a point of interaction with all people entering the building, including staff, clients and visitors. This space has a clear visual connection with the entrance garden and the indoor garden in the atrium. The idea is to create a space that offers all visitors the feeling of purity by being a simple background to both gardens. It also acts as a space to show the spirit of the technology company by modern and minimalist design.

Figure 83: View to the reception from the stairs (hand sketch)
Figure 84: The rendering illustrates the main entrance and the reception.
9.3.3 The atrium

Oneness with Nature

The atrium with natural light is designed with the principle of Oneness with Nature where the garden is the centre of the building. The courtyard garden is designed to be a dry garden with indoor plants and gravel. The indoor plants are bonsai which are created from New Zealand native plants. The indoor garden not only provides a healthier, cleaner atmosphere, but it is also a solution for noise reduction.

Break from the routine

The meeting huts, designed with the idea of a bird nest, are the surprise factor in the building. The huts can be used as an informal meeting point with clients or between staff.

For the Connectors, Collectors and Navigators in the company who spend half a day working in the collaboration and communication zone, the indoor garden and bird nest meeting huts will provide a welcoming atmosphere.

Figure 85: View to the atrium (hand sketch)
Figure 86: The rendering illustrates the atrium garden.
9.3.4 Multi-functions room

Oneness with Nature

The multi-function room is a place that can accommodate up to 80 people. It can be a conference room and a training room during work hours, and a yoga studio or entertainment room for staff after work. The room also can be used for functions or events for the public without interrupting the company's activities as it has another direct entrance from the reception floor. The room, surrounded by outdoor and indoor gardens, as can be seen in the sketch, offers people the feeling of being with Nature.
Figure 88: The rendering illustrates the room being used for conference.
9.4 COLLABORATION ZONE - Working area

Simplicity

The fluid movement between indoor and outdoor space by the combination of curved shape and transparent surface comes from the principle of simplicity. It creates a clear unity in the design of the collaboration space. Simplicity in the design of the work area is to reduce distractions in the workplace.

Figure 89: Collaboration area (hand sketch)
Figure 90: The rendering illustrates working floor level 5.200.

Figure 91: The rendering illustrates working floor level 7.400.
9.5 CONCENTRATION ZONE

Concentration room

Tranquility

The concentration rooms are located in the back of the building, which provides a quiet and less distracted environment. Pursuing the idea of tranquil space, these rooms hide behind the company’s library which acts as the intermediate space before entering the tranquil spaces.

Naturalness & Wabi-Sabi

The concentration area has a visual connection to the back garden, where there is a combination of a dry garden at ground floor level and a vertical garden, as can be seen in Figure 92.

Concentration rooms can be used by one person for short periods of time. They offer staff an isolated space to focus on getting work done in a stress-free atmosphere.

Figure 92: Concentration area.
Figure 93: The rendering illustrates concentration room.
Figure 94: Physical model shows the concentration room
This research topic is to address a very common issue at workplace, the ceaseless effort to create a better environment for people to bring out their best at work and, at the same time, to be able to balance their work and private life. The concept of ABW in Western thought as a new model of future working is developed in combination with the Eastern philosophies on Happiness at Work through this design project. From the initial stages of the study, the design principles of Eastern philosophies became a solution for dealing with disadvantages of the ABW concept: the difficulty of satisfying all parties at the same time. Interestingly, as well as dealing with the problems, these principles even assist ABW to enhance its principle advantage of creating the most suitable spaces for different tasks. The primary outcome of this study has been in the form of this explanatory document and the architectural design responses to the research question: “How can the concept of Activity Based Working (ABW) and the ancient Eastern philosophies supplement each other in the design of future workspaces that can overcome the barriers to effective, life sustaining use and reach Happiness at Work?”

The idea of the Oneness of Eastern Heart and Western Mind is ever present through the whole design process for this project. The Western Mind concept of ABW helps build up a layout plan, with functional zones based on how technology employees work, while the Eastern Heart of ancient Eastern philosophies contributes to strengthen the relationship and connection of those different zones. The ABW concept of the four types of people at work has offered the approach of designing different spaces to best suit people’s requirements and habits at work, fulfilling people’s outward needs. Meanwhile, Eastern design principles emphasize the feeling of people towards these spaces, creating a harmonious atmosphere which fulfills people’s inner feelings. East has met West and they combine to produce a harmonious whole.
Figure 95: The combination in outcome design between ABW idea and Eastern design principles.


http://formandwords.com/category/architecture/work-place/


Figure 1_ Happiness fuels success.

Figure 2_ Naval Zone Business Center Project (1938-42)
Algiers, drawing by Le Corbusier.

Figure 3_ Changes of office layout through history.

Figure 4_ Technology in modern workplace.

Figure 5_ Future trend in digital workplace.

Figure 6_ Comfortable bean bags at Google office.

Figure 7_ The holistic approach of ABW.

Figure 8_ Benefits from ABW.

Figure 9_ Barriers to ABW.
Ibid., 10.

Figure 10_ The design strategy and solution of Spark to adopt ABW concept. Image courtesy of Warren & Mahoney.

Figure 11_ The public atrium with bridges.
Figure 12_ A variety of spaces that encourage creativity and focus.
Courtesey of Warren & Mahoney.

Figure 13_ The first level plan of the Macquarie building. “Macquarie Bank,” World Architecture News, last modified April 2, 2010.
http://www.archdaily.com/54544/macquarie-bank-clive-wilkinson-architects/5008b72e28ba0d50da001921-
macquarie-bank-clive-wilkinson-architects-axo-01

Figure 14_ The working level plan of the Macquarie building.
Ibid.

Figure 15_ Sun light in the atrium.
Ibid.

Figure 16_ Workstations in the corners of Macquarie bank building. Woods Bagot, “International, Benchmark, Activity-Based Workplace for Macquarie Group,” accessed June 13, 2015,
http://www.woodsbagot.com/project/one-shelley-street

Figure 17_ Workstations around the atrium. “Macquarie Bank,” World Architecture News.

Figure 18_ Individual working booths are placed inside library.

Figure 19_ Individual working booths. Veldhoen & Co., “It’s not about the Building,” accessed June 10, 2015,

Figure 20_ Collaboration spaces. “Macquarie Bank,” World Architecture News.

Figure 21_ Big meeting room on each floor. Ibid.

Figure 22_ Big meeting pods. Ibid.
Figure 23_ Small meeting pods.
   Ibid.

Figure 24_ Chilling out spaces are positioned at the junctions where people are encouraged to share and interact.

Figure 25_ Canteen and cafeteria in Macquarie building. “Macquarie Bank,” World Architecture News.

Figure 26_ Thinking pods.
   Ibid.

Figure 27_ Break out spaces.
   Ibid.

Figure 28_ Waterfall model and Prototyping model – the most popular models in Software Development Process.

Figure 29_ Personal lockers in the building.


Figure 33_ Yin yang symbol in Taoism.

Figure 34_ Zen simplicity of basic shape, lines and limited number of colours.

Figure 35_ Dental clinic designed by Hironaka Ogawa with Zen principle of Simplicity.

Figure 36_ Naturalness principle in the design of a barn.

Figure 37_ Wabi-Sabi principle in Japanese traditional house.

Figure 38_ Subtlety in Zen garden.

Figure 39_ Forest and mountain as background in Shodenji garden, Japan.

Figure 40_ Shodenji garden with no background and with a city life background.
Figure 41_ A sample of borrowed scenery in Nets garden in Suzhou, China.
“On Anish Kapoor. Part Two: from Microcosm to Narcissism,” accessed June 5, 2015,
https://prostheticaesthetics.wordpress.com/2012/10/03/on-anish-kapoor-part-2-from-microcosm-to-narcissism/

Figure 42_ Zen garden as a background in interior design of a traditional Japanese house.

Figure 43_ Vastu Shastra diagram.

Figure 44_ Dharamshalas, or sarais, a safe shelter for caravans in Northern India.
Ibid.78.

Figure 45_ Hindu temple, India.

Figure 46_ Landscape as background in Ubud Hindu temple in Bali, Indonesia.
Saranabhi, “Pura Tirta Empul, Ubud, Bali, Indonesia,” last modified December 24, 2012,
https://commons.wikimedia.org/wiki/File:Pura_Tirta_Empul,_Ubud,_Bali,_Indonesia.JPG

Figure 47_ Many surprise factors at every turn of Ryogen-in gardens.
Noboru Asano, “My Kind of Kyoto,” accessed June 5, 2015,
http://kyoto.asanoxn.com/places/murasakino/ryogenin/phrgi240.htm

Figure 48_ Ryogen-in garden without suprise factors.
Ibid., edited by author.

Figure 49_ Surprise factor in the Garden Tree house, designed by Hironaka Ogawa, Japan.
Kimberly Li, “Garden Tree House by Hironaka Ogawa and Associates,” last modified February 28, 2013,
Figure 50._ The difference in the design without the surprise factor.
Ibid., edited by author.

Figure 51._ Yu Yuan, "Garden to Please" in Shanghai.

Figure 52._ Kobayashi, inner courtyard garden.

Figure 53._ Tranquility in Zen Buddhism meditation.

Figure 54._ Unleashed current head office in Takapuna, Auckland, New Zealand.
Unleashed, “Your Potential Unleashed,” accessed June 2, 2015,
https://www.unleashedsoftware.com/about/jobs

Figure 55._ Unleashed team infographic.
Unleashed Software.
Unleashed, “Get to know Unleashed team”, accessed June 2, 2015,
https://www.unleashedsoftware.com/blog/get-to-know-the-unleashed-team

Figure 56._ Different spaces in Unleashed current head office.

Figure 57._ Anchors’ requirements for their working spaces.

Figure 58._ One day working of an anchor at the office.

Figure 59._ Connectors’ requirements for their working spaces.

Figure 60._ One day working of a connector at the office.

Figure 61._ Collectors’ requirements for their working spaces.

Figure 62._ One day working of a collector at the office.

Figure 63._ Navigators’ requirements for their working spaces.

Figure 64._ One day working of a navigator at the office.

Figure 65._ The location of the site.
Figure 66_ Functions of surrounding buildings.
Ibid. edited by author.

Figure 67_ Public carparks in walking distance from the site.
Ibid., edited by author.

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Figure 78_ Plan level 7.400

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Figure 84_ The rendering illustrates the main entrance and the reception.

Figure 85_ View to the atrium (hand sketch)

Figure 86_ The rendering illustrates the atrium garden.

Figure 87_ Multi-function room (hand sketch)

Figure 88_ The rendering illustrates the room being used for conference.

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