Changing building typologies forum – Observations from practice

Circadian workplaces: Can curated working experiences help improve work wellness and productivity?

Rebecca Goldberg
Consulting, Arup

Josef Hargrave
Foresight + Research + Innovation, Arup

Pages: 227-231
Circadian workplaces: Can curated working experiences help improve work wellness and productivity?

Rebecca Goldberg
Consulting, Arup

Josef Hargrave
Foresight + Research + Innovation, Arup

Many workplaces provide static, homogenous environments that do not change over the course of the day. Typically, workplace design is driven by financial return and technical efficiency: furniture and spaces are repetitive; light levels are static and set; climate, temperature and acoustics are optimised. Coupled with an ‘always on’ technology-driven culture, employees find themselves in an environment that does not cater for the diversity of human and cultural experiences of working. Instead they are pushed towards homogenous patterns, from 9 to 5 and beyond.

People are not robots; we are rational and irrational; we are individuals and our needs, and our productivity, vary over the course of the day and according to the tasks we are doing. A CABE / BCO report highlighted that 85% of business costs are attributed to salaries, but if people are the greatest asset of most businesses then why isn’t the human experience prioritised? Workplaces need to actively encourage and enable variation to provide a symbiotic relationship with our daily experiences. This includes periods of downtime or a shift in gear to refresh, feed creativity, and ultimately improve our work. Equally, our workplaces need to inspire collaboration and create energy. The question is how the physical workplace can support variety and encourage healthier and more productive behaviours?

Diverse and customised workplace experience

With the advent of new types of open plan layouts and activity-based working, we are already seeing a shift towards more diverse workplaces. But we think future workplace design needs to go further than that. Here we can learn from the hospitality, automotive and retail industries which work hard to curate the experience for each visitor to encourage a range of responses: relaxation, buzz, comfort, excitement!

Space planning, building systems and the choice of furniture must consider people’s phenomenological responses to space. They must appeal

Notes:

Figure 1:

The Ace Hotel in New York – using the atmosphere of the hotel lobby to create a rich, working environment.

to all our senses to provide choice and actively promote different types and levels of endeavour. This includes matching the acoustics, lighting and thermal comfort of a space to the type of experience we want to provide – and to actively encourage variations across these environments.

Research at the University of Exeter shows that employees perform up to 30% better when they are given the opportunity to personalise their working environments (Knight and Haslam, 2010). By providing flexibility and giving individuals control over physical aspects of their space such as lighting, furniture arrangement, decoration and even thermal comfort, health, wellbeing and productivity can improve. We recommend the design of office environments strikes a balance between curation of the overall look and feel, with appropriate local customisation where possible.

**Building and reinforcing new work social protocols**

Social context is incredibly important in governing social and behavioural patterns. This can be used to reinforce and enable new types of social protocols for the workplace. Bookshelves, low lighting, leather desk pads and use of wood can help create the feel of a library, to signify that a space is designated for quiet, calm, concentration and focus. Reimagining the ‘social stereotypes’ of space can support spatial and behaviour diversity without the need for training or instructions on how to use the space.

Other types of spaces which already have a social context could be ‘borrowed’ for workplaces to reflect our biological and temporal rhythms. These include living rooms and lounges, bars, bedrooms, gardens, sports facilities, treatment rooms, sanctuaries, meditation spaces, refectories, and so on. Existing spaces can also be made less static by varying environmental aspects such as colour, lighting, acoustic treatments, thermal conditions, and connectivity.

**Curating spaces for circadian rhythms**

In employee surveys, access to more daylight is a common request and is one of the most important zeitgebers, or external cues for our circadian rhythms (Mills et al., 2007). Arup is investigating the potential to bring natural conditions into offices to create stimulating and flexible work environments.
through the use of automatic dimming and colour control. Lighting could also be used more prescriptively to vary the internal conditions and provide a cue for staff. For instance, the lighting levels could change colour to signify lunchtime and prompt employees to take a break, or, like a bar, the lights could go up at going home time. Individuals can also have greater control over their environment through lighting, as demonstrated by Arup’s recent study into the use of task lighting. This also showed a 30% energy reduction due to lower ambient lighting levels.

Digital cues and variations
For many of us, digital technologies have taken over our lives. For knowledge workers, smart phones, tablets, and wireless connections have given rise to a culture where we can no longer fully detach ourselves from our jobs. It is ironic that the technology once promised to set us free is now imprisoning us. Being productive is no longer dependent on a fixed space and time. We can work in a variety of environments; at home, in a café or on the train, late at night or while traveling. While this offers great flexibility and choice, it can also impact on our wellbeing and rob us of fixed opportunities to switch off, even on holiday. German vehicle manufacturer Daimler has responded to this by deleting all emails received by employees while on holiday. Other large organisations restrict the times during the day at which e-mails can be sent and received.
As part of this trend towards ubiquitous connectivity, technology-free sanctuaries are lost. In the workplace we are creating spaces where connectivity to the digital world is a given, but we should also be thinking about spaces where connectivity is restricted. The Thinking Cup chain in Boston has decided not to offer free Wi-Fi in its coffee shops. ‘We wanted to avoid an “internet café” scene but instead encourage conversation and just some old fashion newspaper and book reading,’ Hugh Geiger, Thinking Cup owner. Companies may take a lesson from this and provide technology-free zones where the experience is focused on working offline to enhance creativity, focus, health and ultimately enable employees to work ‘smarter’.

**Conclusion**

The current trend towards more diverse workplaces has to be matched by a greater focus on the cura-
tion and customisation of environmental conditions, and the impact this can have on the human experi-
ence. The technology components and associated research needed to achieve customisable and tar-
geted environments are already available in many cases. This includes lighting strategies, acoustic 
design, localised temperature control, flexible furniture and digital variables such as internet con-
nectivity and mobile phone coverage.

We need to recognise that homogenous envi-
ronments are incompatible with the natural rhythms of people and the environment. And, that a more rhythmic workplace environment could enable experiences that ultimately promote healthier and more productive workplaces.

**Notes:**

6 [http://bostinno.streetwise.co/2014/04/15/why-these-successful-boston-coffee-shops-dont-offer-free-wifi/]
CBT forum – Observations from practice: Circadian workplaces
Goldberg, R. & Hargrave, J.

About the authors:
Rebecca Goldberg (Rebecca.Goldberg@arup.com) is an Associate in Arup’s Consulting group helping organisations with the physical, technical and organisational change needed for better workplaces. An engineer by training, Rebecca has a background in delivering complex, multi-disciplinary projects involving specialists from technical engineering and design, to ICT to organisational psychology. She is passionate about employee engagement and the design of workplaces to meet the needs of increasingly diverse, flexible and mobile employees.

Josef Hargrave (Josef.Hargrave@arup.com) is an Associate in Arup’s global Foresight + Research + Innovation team. He has a background in innovation management and corporate foresight. Josef specialises in exploring and envisioning the future of the built environment. He works across all scales and sectors, including cities, buildings and spaces. He is particularly interested in how trends in design will transform future human experiences, and how people themselves will impact future design.

References