

<b>Institution:</b> Royal College of Art		
<b>Unit of Assessment:</b> 32 Art and Design: History, Practice and Theory		
<b>Title of case study:</b> Human-based workplace design research influencing commercial office property industry		
<b>Period when the underpinning research was undertaken:</b> 2000-2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Jeremy Myerson	Helen Hamlyn Professor of Design	2000-present
Gail Ramster	Senior Research Associate	2009-present
Jo-Anne Bichard	Professor of Accessible Design	2006-present
Catherine Greene	Senior Research Associate	2007-2016
Imogen Privett	Senior Research Associate	2011-2014
<b>Period when the claimed impact occurred:</b> 2014-ongoing		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>Traditional workplace design is engineering-led and focused on efficiency. Myerson's research, which explores a sensory, experiential and human-centred approach to workplace design, changed the practices of some of the world's major developers, manufacturers and architects, and improved the experiences of office workers. It substantially influenced the marketing of large-scale office developments such as The Shard in London, and the redesign of its floor space, generating £39m in rental income. Global manufacturer Haworth changed its design approach to develop new office products that now constitute 5% of its €200m European sales. Architects and designers applied Myerson's wellbeing research, with Gensler opening a profitable new German office as a result of the RCA collaboration to engage with clients including Roche, Bayer, Adidas and Telefonica.</p>		
<b>2. Underpinning research</b>		
<p>Since 2000, the Helen Hamlyn Centre of Design (HHCD) at the RCA has conducted research, led by Myerson, into a more human-centric approach to workplace design. This body of work has encompassed more than 30 collaborative projects with industry partners as well as studies funded by the UK Research Councils, with results described in a range of co-authored books, book chapters, journal papers and exhibitions.</p> <p>In 2006, Myerson established a Work &amp; City Lab in HHCD as a hub for workplace design research, bringing a novel academic perspective to understanding and supporting human interaction and experience at work. Research in the form of a series of art and design interventions is a challenge to more traditional engineering-led approaches, which treat the workplace as a technical artefact and use scientific and mathematical formulae to shape its parameters.</p> <p>The essential contribution of the research can be summarised as exploring the impact of design interventions in four areas: <i>influencing behaviour</i>, <i>enhancing experience</i>, <i>exploring sensation</i> and <i>affecting wellbeing</i>. These human-centred perspectives present a design alternative to engineering-led efficiency in the office.</p> <p><i>Influencing behaviour</i>: How employees behave at work has been explored through several studies; Myerson and Greene's paper on knowledge worker behaviour in relation to mobility within the office (2011, see 3.1), which presents four typologies of office worker, reflects this</p>		

exploration; it shows that different types of worker require different types of space – one size does not fit all.

*Enhancing experience:* This has involved a series of design experiments bringing techniques from theatre and temporary exhibitions into the office environment, as described in Myerson and Privett's *Life of Work* (2014, see 3.2). Evaluation of these experiments demonstrated that workers welcome 'changes of scene' with colour, vista, light and shadow, and that office designers require guidance in achieving these effects.

*Exploring sensation:* This is an extension of the experience theme and encompasses both physical sensory inputs (light, touch, views of nature) as well as digital ones. *Time & Motion* (2013, see 3.3) is an exhibition and book produced as part of the Creative Exchange, an AHRC-funded Knowledge Exchange Hub for the Creative Economy in which the RCA collaborated with Lancaster and Newcastle universities (2012–15), which examines the sensory impact of digital technology on working lives. The research showed that it was possible to create a tactile and sensory dimension to working virtually with digital technology. Myerson co-edited the book, which included several studies by RCA researchers on the project.

*Affecting wellbeing:* This theme has been addressed in several HHCD studies. *New Demographics, New Workspace* (2010, 3.4) is a publication based on the two-year Welcoming Workplace study (AHRC/EPSRC 2007–9, Designing for the 21st Century programme); this established a spatial design framework for older workers called the '3Cs' (Concentration, Collaboration and Contemplation), which has been widely adopted by industry (see Impact section). Myerson went on to study wellbeing in the general workforce, as evidenced by 'Workplace Health and Wellbeing' (2017, 3.5). HHCD researchers worked with an industrial consortium to create a design tool to measure wellbeing in the workforce and effect environmental changes to improve it. The research showed that office workers have both physical and psychological requirements in relation to wellbeing that need to be met.

In all, the research programme has collaborated with more than 20 commercial organisations (see Section 4). How the studies bring an art and design lens to the productive workplace is discussed in a book chapter, 'Change-makers' (2017, 3.6), in an academic anthology edited by Professor Derek Clements-Croome. The chapter's research focus on behaviour, experience, sensory input and wellbeing is both a challenge and an opportunity for the technically led workplace industry.

### 3. References to the research

3.1 Greene, C. and Myerson, J. (2011), 'Space for thought: designing for knowledge workers', *Facilities*, Vol. 29 Iss: 1/2, pp. 19–30.

3.2 Myerson, J. and Privett, I. (2014), *Life of Work: What Office Design Can Learn from the World around Us*, London: Black Dog Publishing. **Submitted to REF2021.**

3.3 Myerson, J. and Gee, E. (eds) (2013), *Time & Motion: Redefining Working Life*, Liverpool: Liverpool University Press. Book based on: Myerson, Co-Investigator, The Creative Exchange, 2012–2015, AHRC Knowledge Exchange Hub for the Creative Economy (AHR/J005150/1) led by RCA, Lancaster University and Newcastle University.

3.4 Myerson, J., Bichard, J. and Erlich, A. (2010), *New Demographics, New Workspace: Office Design for the Changing Workforce*, Aldershot: Gower. Book based on: Myerson, Principal Investigator, Welcoming Workplace, EPSRC/AHRC Designing for the 21<sup>st</sup> Century, £186k, 2007–2008 (Grant no: AH/E507948/1)

3.5 Myerson, J. and Ramster, G. (2017), 'Workplace health and wellbeing: can greater design participation provide a cure?', in: R. Cooper and E. Tseklevs (eds), *Design for Health*, Design for Social Responsibility series, Aldershot: Gower.

3.6 Myerson, J. (2017), 'Change makers: rethinking the productive workplace through an art and design lens', in: D. Clements-Croome (ed.), *Creating the Productive Workplace* (3rd Edition), Abingdon: Taylor & Francis. **Submitted to REF2021.**

#### 4. Details of the impact

The research to advance a human-centred agenda for workplace design as a route to achieving better organisational performance has had a far-reaching impact on key stakeholders in the design, construction and management of offices. These include developers, manufacturers, architects and occupiers of office buildings. Examples in these four areas will be discussed:

##### **Developers – example: marketing The Shard**

RCA research has influenced developers of office buildings by prompting them to address the dimensions of user experience, behaviour and wellbeing in their projects, rather than just space utilisation. For example, research led by Myerson (see 3.4) to determine the optimum workplace conditions for older knowledge workers provided the basis for imaginative new office layout in The Shard, a 95-storey skyscraper at London Bridge and the tallest building in the UK, by developer Irvine Sellar and designed by Italian architect Renzo Piano. The Shard was completed in 2013 prior to an extensive marketing campaign to attract corporate occupiers. Myerson's zonal model of Concentration, Collaboration and Contemplation (the 3Cs) as three primary areas for knowledge work was translated in 2014 into three large exhibit spaces (termed 'Winter Gardens') created on one floor by architects Morey Smith, to demonstrate how the space could be used in a more human-centric way. Myerson worked with The Shard's marketing and design teams to develop the concept. He spoke at a seminar on the research in June 2014 (5.1) and was interviewed and photographed in situ for The Shard's in-house publication, *The Shard: A Beacon for Modern London*. The research was on display in the marketing suite. The Shard subsequently let all 28 office floors of the building to commercial occupiers (a total of 600,000 sq ft) at an average of £65 per sq ft, generating £39m in revenue. The Leasing Director of The Shard explained: 'When it was first built, The Shard was labelled a white elephant, a folly. Its floorplates were an odd shape and not easy to fit out. We needed people to see it differently, and to shift the discussion from floorplate configuration to experience and behaviour. We used Myerson's 3Cs research model as the basis to show how The Shard could meet real business needs and to shift perceptions of the building in the market.' (5.2)

##### **Manufacturers – example: Haworth product**

RCA research has influenced manufacturers in the workspace supply chain such as Haworth, Herman Miller, Philips Lighting, Kinnarps and Milliken, by alerting them to a more sensory and experiential approach to office interiors. As a result of the research, they have developed new products, marketing strategies and showrooms. For example, HHCD collaborated with the furniture manufacturer Haworth between 2009 and 2014 to explore how non-office spaces (e.g theatres, libraries, temporary event spaces) could influence workplace design to become more people-centred (3.2). Haworth, based in Michigan, USA, is the world's third-largest office furniture manufacturer; it markets to 120 countries and recorded sales of US \$2.04 billion in 2017. Based on RCA research, Haworth revised its fabrics and finishes on product lines globally to become warmer and more residential. In particular, RCA research informed the 2015 launch of an entirely new furniture range, YourSpace, aimed at 'individual expression in the office', which now accounts for 5 per cent of all Haworth sales in Europe (5.3). According to Haworth's Vice President, Western Europe: 'Influenced by the RCA, we moved the look and feel of our existing ranges from cold and clinical to warmer colours and materials, and we launched YourSpace. This more domestic-looking approach brought us into line with what customers are demanding.'

##### **Architects and designers – example: Gensler focus on wellbeing**

RCA research has informed the design of offices by architects including Arup, Sheppard Robson, Reid Architecture, Studio Tilt, Studio Banana and Fletcher Priest Architects, by creating an evidence base to persuade clients to adopt a more human-centric approach and involve employees in a co-design process (5.4). For example, an HHCD research team partnered with the architecture firm Gensler to recruit an industrial consortium (Shell, RBS, Milliken, Kinnarps and Bupa) to fund joint research into aspects of workplace wellbeing. Gensler has 48 offices in 16 countries, revenues of US \$1.2 billion and more than 6,000 employees. The research (3.5) generated a joint RCA/Gensler toolkit to measure workforce wellbeing and propose design interventions to improve it (see 5.5). Gensler subsequently used the wellbeing research to

support the launch of a new office in Munich in 2017 to service the German and Swiss markets. The wellbeing toolkit was used to attract large companies such as Roche Group, Bayer, Adidas and Telefonica, which have an interest in improving employee experience. The Munich office generated design fees of €2.5m in its first full year of operation. Gensler's Head of Consulting, Europe, said: 'I have no doubt that our collaboration with RCA on wellbeing research played a key role in supporting our new German office. It gave us a valid reason to engage with client companies.' (5.6).

### **Occupiers – example: Plantronics redesigns its facility**

RCA research has also influenced occupiers of office space, such as Shell, Bupa, RBS, Unicredit and GlaxoSmithkline, encouraging a move away from traditional engineering-led workplace planning. For example, Plantronics is a US audio-electronics company headquartered in Santa Cruz, California, with revenues of US \$520m and 3,800 employees worldwide. Between 2012 and 2016, it redeveloped the interior of its Swindon UK headquarters office to improve acoustics, using Myerson's 3Cs zoning model as the basis for redesign. This approach proved successful, with user satisfaction rising from 63 to 84 on the Leeson Index, a standard post-occupancy measure in the office industry; and the model was subsequently replicated in Plantronics offices in Madrid, Amsterdam, Cologne, Milan and Paris (5.7), between 2016 and 2018. The Managing Director of Plantronics, Europe and Africa, noted that 'the RCA research was highly actionable'.

A key vehicle for ensuring research impact has been the WORKTECH global conference series on the future of work and workplace, co-founded by Myerson in 2003 and now active in 25 cities around the world. Since 2014, there have been 120 WORKTECH events (5.8) aimed at senior workplace professionals; many have featured RCA research in the field, and Myerson has spoken at WORKTECH Berlin, New York, Toronto, Tokyo, Buenos Aires, San Francisco and others. In September 2016, Myerson established WORKTECH Academy, a spinout business to share research into human-centred workspace design with a global industry network. WORKTECH Academy (5.8) is an online platform and membership club, with more than 40 corporate partners, including many of the companies participating in RCA research. Since launch, the business has generated c. £1.2m in revenues and created five new jobs. Myerson is Director of the Academy, in which capacity he networks with leading players to continue advancing human-based workplace design (5.9–5.10).

## **5. Sources to corroborate the impact**

5.1 *The Shard: A Beacon for Modern London*, marketing brochure (attached); and The Shard event, July 2014: <https://www.the-shard.com/news/shard-talks-hear-experts-views-office-trends/>

5.2 Leasing Director, The Shard, testimonial letter (2020).

5.3 Vice President Western Europe, Haworth, testimonial letter (2020); and YourSpace Haworth furniture, <https://www.haworth.com/eu/products/tables/desks/yourplace>

5.4 Jeremy Myerson interviewed on co-design in books by workplace designers:

Studio Tilt (2013), *Codesigning Space*, London: Artifice Books (Studio Tilt is a London-based workspace product and environmental consultancy with a range of public and private sector clients, and a pioneer of co-design techniques).

Studio Banana (2019), *Working Out of the Box*, self-published (Studio Banana is a multi-disciplinary design firm based in Lausanne and London whose clients include Telefonica, EY, Dupont, McCann and Santander).

5.5 RCA/Gensler Report (2017), 'Workplace & Wellbeing: Developing a Practical Framework for Workplace Design to Affect Employee Wellbeing'

<https://researchonline.rca.ac.uk/3315/1/MyersonRamsterThomson%20Workplace%26Wellbeing%202017.pdf> ; and Myerson, Jeremy, (2017) 'Listen 1: Jeremy Myerson', *Blueprint*, 365, p.17.

5.6 Head of Consulting, Gensler Europe, and Managing Director, Gensler Munich office, testimonial letter (2021).

5.7 Clapperton, G. and Vanhoutte, P. (2014), *The Smarter Working Manifesto*, 'Case Study: Plantronics'.

5.8 WORKTECH Events and WORKTECH Academy: <https://www.worktechevents.com/events/> and [www.worktechacademy.com](http://www.worktechacademy.com)

5.9 Jeremy Myerson (2019), *On Office* magazine Power List, January (image provided): <https://www.onofficemagazine.com/people/item/5469-inside-onoffice-january-the-power-list-issue>

5.10 Jeremy Myerson, '51 Companies and People Shaping the Future of Office Real Estate', *Bisnow*: <https://www.bisnow.com/london/news/office/51-people-and-companies-shaping-the-future-of-office-real-estate-100626> (Screenshots also available as PDF)