

De Paoli, D. and Ropo, A. (2017). Creative workspaces – a fad or making real impact?

Journal of Corporate Real Estate 19(3), 157–167.

Introduction

We believe that a number of overlapping themes can be discerned in the presentation of workplace spatial reorganizations as explained by companies and consultancies in their corporate publications and websites... The main themes include play or fun at work... the employee as consumer, the workplace as home and the workplace as community. These themes incorporate an aestheticization of the workspaces, consciously designing them to produce pleasurable and sometimes sensuous effects. This is combined, almost ironically, with the disappearance of the workplace itself as a workplace. (Dale and Burrell, 2010: 20)

Dale and Burrell (2010) write in their book how offices have lost their traditional workspace characteristics. It may seem like having ‘creative workspaces’ in businesses has become a trend—at least for companies that wish to be perceived as creative and innovative. Corporations invest increasingly in designed creative workspaces to make their employees more creative and to compete for the best talent with an appealing company brand. Organizational creativity refers to the production of novel, useful ideas or products more or less appropriate and useful to the situation (Amabile, 1996; Mumford, 2003; Mumford and Gustafson, 1988). It also refers to the process of producing something that is both original and worthwhile (Amabile, 1998; Csikszentmihalyi, 2007). In this paper,

we will explore the phenomenon of designed creative workspaces as they appear in the pictures on company websites.

A quick search on the Internet shows that companies that have built workspaces to enhance creativity are numerous, worldwide and operate in various fields, such as information technology (IT), law, advertising, software and games development, toys, beauty equipment, sports and beverages, just to mention a few. Despite the variety of companies that have chosen to build creativity enhancing workspaces, the aesthetic appearance of the spaces seems to follow a rather standardized and deterministic understanding of creativity stimulation. It is, as if certain workspace designs were to make creativity to flourish. We became curious and wanted to explore this further. We asked:

What is characteristic of the creative workspace designs applied by a number of companies across industries and displayed on the Internet?

What assumptions of creativity and workspaces are there, and how do they relate to recent research?

The paper is structured as follows. First, we make an overview of some recent literature on workspaces and creativity. After that, we describe the creative workspace pictures displayed on the Internet in terms of what spatial themes seem to be linked with creativity. We identify that the creative workspace pictures convey assumptions that home and nature-like, playful, technologically inspired and symbolism in spaces are considered to enhance creativity. We go back to research to see how our findings match the literature and conclude to some propositions of the relation between space and organizational creativity. Finally,

we suggest how our view and exploratory findings inform practitioners and how research should elaborate on this phenomenon in a more systematic way.

Overview of recent literature on workspace and creativity

Researchers studying the effects of office space design have predominantly been investigating employee satisfaction, communication or knowledge sharing (Appel-Meulenbroek, 2013; Kampschroer and Heerwagen, 2005; Maarleveld *et al.*, 2009). Dul and Ceylan (2011) argue in their review that workplace design is mostly analyzed from the perspective of workplace safety, well-being and ergonomics, and concern mainly for physical factors like indoor plants, windows, colours, light, materials, physical arrangement, furniture, and other artifacts. The study of organizational creativity from the perspective of space is rather limited, perhaps because of the complexity in drawing conclusions between the design of the workspace and employee creativity (Lewis and Moultrie, 2005; Lindahl, 2004; McCoy, 2005).

Despite the difficulty of studying the relationship of office space and creativity, there is some research on how the design of workspaces can nurture creative processes at work. The first studies were quite general trying to make a link between creativity and the built context (Lewis and Moultrie, 2005; Lindahl, 2004; McCoy, 2005), claiming the difficulty to draw any consistent conclusions. When trying to find out which physical factors influence organizational creativity, the importance of open spaces was highlighted by some researchers studying creativity (Dul and Ceylan, 2011; Kristensen, 2004; Sailer, 2011), while others focus more on the use of visual models, creative tools and other material objects and artefacts influencing creativity (Carlsen *et al.*, 2012; Doorley and Witthoft, 2012). Furthermore, studies on creativity and workspace have found that office design may

stimulate creativity indirectly, creating a creative organizational culture (Haner, 2005; Kallio *et al.*, 2015; Martens, 2011). These few studies examine employees' or managers' perceptions of creativity in the designed workspaces. The studies of designed workspaces seem to underlie the idea of spaces as something that can be planned/managed/manipulated to make things, such as creativity, happen – from outside and independently of people's subjective experiences (Ropo, Sauer, & Salovaara, 2013).

Empirical materials and method

This inquiry started with observations of some built-in and purposefully designed creative spaces in various offices we visited in the Northern Europe. They all appeared very colourful, playful and fancy. To gain more insight, we sought the Internet with keywords 'creative workspace', 'creative office' and 'inspirational office'. With these characterizations, we sampled forty pictures from the Internet pages (Designjuices, 2011; Uberflip, 2012, among others) where the workspaces were defined creative by the companies themselves. These pictures provide the basis for our exploratory and inductive analysis of the aesthetic appearance of the workspaces ¹.

Methodologically, our approach is based on the qualitative research tradition (Alvesson and Sköldbberg, 2009; Denzin and Lincoln, 2011) and more specifically on a social constructionist approach (Berger and Luckman, 1967) that pertains the worldview that human action is based on interpretations and subjective experiences creating multiple realities, instead of objectively measured qualities of one 'true' reality. The social

¹ A more detailed description of the sample and analysis of the pictures is provided in another article (De Paoli, Sauer and Ropo, forthcoming).

constructionist approach encourages to question myths and beliefs in organizations that are taken for granted (Hacking, 1999). Here, we challenge the seemingly common assumption among managers, designers and architects that particularly designed spaces would nurture employee creativity and foster innovation in a deterministic way. We would assume that the relation between workspace arrangements and organizational creativity is more complex and less linear. Our method is inductive based on a grounded theory type of knowledge development (Glaser and Strauss, 1967; Strauss and Corbin, 1990) where empirical observations are given the forefront before theoretical deduction.

Moreover, our analysis is informed by sensual methodology (Warren, 2008) and aesthetic sensibilities (Strati, 2007). We looked at the pictures and exposed ourselves to imagination of what the spaces reminded of and how it would feel to work there. In Strati's (2007) words, this is sensible knowledge. He argues for its scholarly relevance and emphasizes the role of the researcher's sensory faculties in knowledge construction. This is quite contrary to the positivist research tradition (typically applied in facility and real estate management research) where the researcher's role is to 'discover' or reveal the truth. In our analysis, we relied on our sight, imagination and aesthetic judgement as well as own experiences in working in different spaces. We looked at the size of the buildings and structures, the furnishings, the colours, the materials, and the overall décor. All these evoked memories and feelings that informed our analysis. The pictures showed consistency in design, although the interior décor varied. The most apparent common characteristic was that the designs looked quite different from regular offices. They were far more informal, colourful, playful and imaginatively decorated. After lengthy gazing at the pictures, a saturation point was reached: some themes and styles kept on repeating. The designs were

inspired by homey fixtures, kindergarten elements, sports centres and other leisure retreats. Following Miles and Huberman (1994), we thematised the workspace designs to five categories: home, symbolism and memory, sports and play, past and future technologies, and nature (De Paoli et al., forthcoming). Next, we will describe how these thematic categories played out in characterizing the looks of creative workspaces and how they were planned to work.

Analysis

Home

The “home” theme came up often when searching for creative workspace pictures on the Internet. Offices were built to resemble the welcoming and warm home with a ‘cosy’ feeling. Use of old furniture, homemade rugs, baskets of colourful wool yarn and knitting needles, rocking chairs, warm colours and lamps is not unusual. The heart of a home is typically the kitchen. In many creative workspace designs a big kitchen table serves as a place for meetings, having coffee or eating lunch together. The kitchen table creates a feeling of hominess, warmth and mutual trust. Texts on the Internet reveal that many companies gather around a big table either to eat, work or both, at least once a week, sometimes every day. The underlying assumption is that creative work needs a peaceful and trusting environment.

Symbolism and memory

Interestingly, creative workspaces are designed as special kinds of untypical buildings, such as yurts, igloos and chalets. Different decorative elements are used: red telephone

booths; Swiss cable cars and chalets as negotiation rooms built on national symbolism, such as Dutch (Delphi) porcelain coffee cups where you can sit inside and lush tulip beds constructing a vivid bond between the workspace and nationality. This reinforces the connection between an office space and the memorable distinctive culture. The national culture and symbolism spread the aura over the office space, thus borrowing other, more hidden meanings to it – thus fuelling imagination.

Sports and play

The themes of sports, play and playfulness are also very popular amongst many designed creative workspaces. There is both an attraction and idealization of the carefree childhood or rebelliousness of teenage years in designing creative workspaces to resemble children's rooms or fraternity houses. Basketball courts in the office, table football games, flippers, skate ramps and computer games seem all belong to a playful office design across the boundaries of work and play, but also give energy for creative work. Some companies communicate visually that they want to create a feeling of being in an eternal summer camp – forgetting that for some people summer camps may trigger memories of a painful boot camp. In one way or another, all the office spaces designed to create associations with playfulness and youth, try to inspire their employees to be physically active. Regular physical exercise is considered increasingly important in work life in general, and this trend has reached the design of contemporary office spaces. Nowadays, it is not rare to find workplaces with their own gym, treadmills or bicycles where the staff can exercise. The underlying assumption seems to be that creativity at work is nurtured by a fit body.

Past and future technologies

Imaginative future on the one hand and nostalgic flirt with past technology on the other are also represented in some corporations' creative workspaces. Technology is supposed to fire the imagination, as the example of one company that built their offices around the theme of Jules Verne's Nautilus submarine. This steampunk design combined industrial romantic themes, such as modified rusty steel beams and mechanical parts, old wooden screens with Victorian furniture with red velvet upholstery. Most companies use the latest technological equipment, fitted to the old-fashioned surroundings. A nostalgic appeal to the past technology is happening at the same time as one finds designed creative work spaces associated with an imaginative modernistic future, such as office space designs resembling space stations or other spatial futures.

Nature

Building spatial elements to resemble nature like environment has long been a trend in office design. Nowadays, this has gone far beyond having plastic plants in offices. Amongst many designed workspaces one may find Zen-like calmness and harmony through the use of wood, organic materials, green walls, and wallpaper picturing landscapes. Some offices have planted big trees or even made a company garden inside the office facilities. These are meant to enhance relaxation and psychological restoration, which is yet another assumption of the conditions of creativity. Spaces for socialization, either in a nature setting or in imitated urban environments or shopping centres with cafés, informal encounters and bright, colourful surfaces seem to be another trend. Having plush sofas and small tables with a few chairs invite people to meet each other and potentially to

do something creative together.

Table 1 summarizes the aesthetic appearance of the creative workspaces explored.

Table 1 about here

Pictures of creative workspaces, like the ones explored here, contain the spirit of creativity that provides different sensations through the colours, materials, smells, artefacts and furniture. They are supposed to give the necessary creative impulses to develop new ideas, new products, new processes and alternative thinking. To summarise our preliminary analysis, we conclude with the following premises of creativity inherent in the spatial designs:

- Symbols of home, memories, sports, technology and nature
- Open and flexible
- Playful and informal
- Calm and tranquil
- Colourful and fun

Discussion and Propositions

We will elaborate on the above findings by analysing these in relation to the recent research on creativity and workspace. Based on this, propositions are developed on the relationship between designed workspaces and organizational creativity.

Balancing between individual versus open space

Most of the creative workspaces in our analysis illustrate open, informal and playful office designs that stimulate social encounters, play, activities and communication. From a contextual processual perspective on creativity, communication in teams or among multidisciplinary people has been conceived to be important for creativity and innovation (Woodman, Sawyer and Griffin, 1993; Amabile, 1996; Amabile *et al.*, 1996). This may be one of the reasons why both the built creative spaces and research on space and creativity focus on open, interactive office layout and proximity between people. However, research on creativity has a long tradition of demonstrating the importance of individual competence and talent for creativity (MacKinnon, 1962, Wallach and Kogan, 1965). Recent literature on creative workspaces advocates the need to include spaces for individual concentration as well as dispersed team communication (Sailer, 2011). The current trend followed by many companies illustrated in our empirical materials shows that most creative spaces are designed for collective teamwork. The spaces studied are designed as playgrounds, activity centres (kitchen, bowling, gym, etc.), artful environments resembling ateliers, natural habitat resembling nature or open flexible fancy offices. The inherent premise in these spatial arrangements is that creativity is mostly a collective phenomenon involving play, activity, fun, noise, dynamics and social interaction. If there is a space for individual work, the room is typically designed for meditation, massage or workout.

There has been recent criticism that creativity should be primarily nurtured by social encounters and team building, claiming that the individual and introvert dimension of the creative process has been downplayed (Cain, 2012). In the creative workspaces presented

in the pictures of our study, the individual dimension seems to be overseen or suppressed. The current creative workspaces are designed for extroverts with a high tolerance of noise and distraction. Team and community building through office design contains the premise that “all together, altogether better”, largely criticized by Dale and Burrell (2010) as creating a false illusion of a harmonious and committed work environment. In accordance with recent findings on creative workspaces, we develop the following proposition:

Proposition 1: In order for designed workspaces to stimulate organizational creativity, companies need to balance the need for enclosed spaces with open and interactive spaces to support both individual creative work and concentration and social encounters and knowledge sharing.

Balancing planned versus spontaneous creativity

The current managerial trend to plan, build and design workspaces to impose creativity is somewhat paradoxical to the often described spontaneously produced creativity. It suggests that companies rely more on planned creativity than for serendipitous, naturally emerging creativity. Planned creative workspaces seem to be someone else's (usually a designer's or architect's) idea of what a creative space is, rather than what the actual users of the space find creative.

The designed workspaces studied here suggest a stereotypical and planned view of creative space referring to home, playroom for children, futuristic haven or other environments out of the traditional work sphere. It looks like creativity needs extraordinary spaces to occur. The same tendency is found within urban planning where the tendency is

to design and build trendy, modern facilities and places based on the idea that creativity and innovation flourish where artists, bohemian and gays like to be (Florida, 2002).

We challenge the idea that creativity is constrained to planned, designed spaces and advocate for the view that creativity can happen everywhere and in unforeseen spaces. We do not deny that creativity can happen in designed creative workspaces as well, but we would challenge that creativity can be urged by demand in a designed creative workspace. Biographies and accounts of creative people (Amabile, 1996) tell us that creativity often happens unplanned and spontaneously in different kinds of places. The life of art and artists, defined as creative industries (Caves, 2000), indicate that their workspaces are typically neither rationally planned or look specifically “creative”. Using visual artists as example, they usually like to have their ateliers in old run-down facilities. Theatres are examples of facilities where most of the creative process happens in black or dark rooms back stage (Salovaara, 2014). The list of examples of creative artistic spatial environments are not especially trendy, colourful or made for creativity. This leads to the following proposition:

Proposition 2: In order for designed workspaces to stimulate organizational creativity, there should be a balance between planned spaces for creativity and spaces for spontaneous creativity to emerge.

Balancing the need for designed creative workspaces with tools for creativity

There is a stream of studies focusing on tools, visual elements, furniture and other material elements inducing or stimulating organizational creativity (Carlsen *et al.*, 2012; Doorley

and Witthoft, 2012) and often more than the space in itself. They share a common understanding that tools and physical arrangements matter for organizational creative processes and that it is central for stimulating creativity.

Ateliers of painters and sculptors often remind more of a craftsman workshop than a romanticized bohemian artist room. In a typical craftsman workshop, you will find many types of materials, such as tools, paint, boxes, wood, dust and paper, all in the order the artist finds fit for his/her style of work. This kind of a material perspective on creativity underlines the importance of “getting physical with idea of work”, which is illustrated by using sketches for developing and presenting ideas—a kind of prototyping. Other kinds of materials are sounds, completion logs, books and reports from the shelf, as well as whiteboards, overhead equipment and other design features allowing for creativity (Carlsen *et al.*, 2012: 125). The physical imprints of creativity are important because they allow for tactile engagement. This literature on creativity and idea development argues for tools being more important than designed spaces for organizational creativity. In line with this kind of literature, we argue for a balanced view taking both tools and work spaces into consideration.

Proposition 3: In order for designed workspaces to stimulate organizational creativity, creative workspaces need to include tools supporting creative processes within the overall workspace design.

Balancing the need for users’ participation and external design expertise

There is a big industry developed to support corporations in reshaping and redesigning

workspaces, as illustrated in several books and articles on organization and space (Dale and Burrell, 2008; van Marrewijk and Yanow, 2010). Architects, interior designers, facility managers and consultants are involved in the whole design and construction process of creative office space. Our analysis of the themes and aesthetic interior of creative workspaces indicate that the designs follow rather standardized notions of creativity and seem to be constructed more by consultants and designers than by the users of the spaces themselves. According to the literature on design processes and workspaces (e.g. Doorley and Witthof, 2012), the importance of involving the end-users early and making sure that their needs and autonomy are met throughout the process is highly stressed.

Using designers' expertise in developing spaces for creative processes is important, but at least equally important is the need to let people design or shape their own workspace. This view has been particularly emphasized by Doorley and Witthof (2012) who as teachers are experimenting with space and creativity. Based on own experiences as engineers, designers and teachers in working creatively, they claim that it is important to equal relations and empower people to shape their own work environment.

“Reconfiguring the physical relationship is a powerful signal that participation is truly welcome. The result is that you get better ideas out in the open, where they can grow. But there's not just one ideal design for a collaborative space. The people using it should be able to transform it themselves, move things around, and create what they need for the work they're doing at the moment.” (Doorley and Witthof, 2012: 5)

The need for user participation in stimulating creativity is supported also by one of the leading scholars on organizational creativity, Teresa Amabile (1996, 1998), who early in her research discovered the importance of employees' intrinsic motivation to inspire

organizational creativity. The importance of users' participation in construction and remodelling of office spaces is broadly supported in the facility management and corporate real estate literatures (e.g. Barret and Baldry, 2009; Pemsel *et al.*, 2010; Sezgin, 2004; Vischer, 2008). In line with this literature we develop the following proposition:

Proposition 4: In order for designed workspaces to stimulate organizational creativity, the planning and design of workspaces need to be participative, engage the end-users and take their intrinsic motivations into account.

Conclusions

This paper directs attention to a contemporary aspect of corporate life in the pursuit of creativity and innovation: the increasing interest in designing creative workspaces. We argue in this paper that the current design ideas and spatial elements in creative workspaces are inspired from widespread stereotyped models of creativity, more than from actual research and empirical insight. We have discussed and problematized this trend and challenged the assumptions inherent in what a creative workspace entails. The conclusion of our preliminary findings is that rather than searching an "ideal" workplace for creativity, one should adopt a more nuanced approach to what organizational creativity calls for in terms of space. Following this, we developed four propositions introducing a more balanced view on designing creative workspaces. We argue that organizational creativity can flourish in different kinds of spaces with a variety of aesthetic features: Our first proposition is that organizational creativity needs both individual enclosed spaces as well as open, transparent and collaborative spaces. Our second proposition claims that

workspaces may be particularly designed for creativity to some extent, but spatial designs also need to give space (*sic*) for spontaneous creativity to emerge. We also propose that beyond spaces, creative processes also need various types of material tools. Finally, we emphasize the importance of involving the end-users to planning and designing their workspace, not only comment on architect's drawings, but to participate as an equal partner throughout the building or renovating process. It is the end-users, in the first place, that the spaces are built for. We wish to challenge real estate managers, property developers, top management, and designers and architects to adopt a more balanced and contextual approach in their planning and designing of creative workspaces. However, our observations and propositions need to be studied further more systematically and in a variety of empirical contexts. We hereby invite researchers to take this challenge and contribute to further development of this field of research. By taking our considerations into account, we conclude that workspaces may make a real impact on creativity and innovation – not only be a management fad.

REFERENCES

- Alvesson, M. and Sköldbberg, K. (2009), *Reflexive Methodology: New Vistas for Qualitative Research*, 2nd ed. Sage, London.
- Amabile, T.M. (1996), *Creativity in Context: Update to the Social Psychology of Creativity*, Westview Press, Boulder, CO.
- Amabile, T.M. (1998), *How to Kill Creativity*, Vol. 87, Harvard Business School Publishing, Boston, MA.

- Amabile, T.M., Conti, R., Coon, H., Lazenby, J. and Herron, M. (1996), “Assessing the work environment for creativity”, *Academy of Management Journal*, Vol. 39, pp. 1154–1184.
- Appel-Meulenbroek, R. (2013), “Managing intellectual capital through a proper building configuration”, *International Journal of Learning and Intellectual Capital*, Vol. 10, No. 2, pp. 137–150.
- Barret, P. and Baldry, D. (2009), *Facilities Management: Towards Best Practice*, 2nd ed., Wiley-Blackwell, Oxford.
- Berger, P. and Luckman, T. (1967/1966) *The social construction of reality. A treatise in the sociology of knowledge*. Anchor, Garden City, NY.
- Cain, S. (2012), *Quiet. The Power of Introverts in a World that Can't Stop Talking*, Viking, Penguin Books, London.
- Carlsen, A., Clegg, S. and Gjersvik, R. (2012), *Idea Work*, Cappelen Damm Akademisk, Oslo.
- Caves, R.E. (2000), *Creative Industries. Contracts between Art and Commerce*, Harvard University Press, Cambridge, MA.
- Csikszentmihalyi, M. (2007), “Implications of a systems perspective for the study of creativity”, in Sternberg, R.J. (Ed.), *Handbook of Creativity*, Cambridge University Press, Cambridge, MA.
- Dale, K. and Burrell, G. (2008), *Spaces of Organization and the Organization of Space*, Palgrave Macmillan, Basingstoke, UK.
- Dale, K. and Burrell, G. (2010), “‘All together, altogether better’: the ideal of ‘community’ in the spatial reorganization in the workplace”, in Van Marrewijk, A. and Yanow, D.

- (Eds), *Organizational Spaces. Rematerializing the Workaday World*, Edward Elgar, Cheltenham, UK.
- Denzin, N.K. and Lincoln, Y.S. (Eds) (2011), *The SAGE handbook of qualitative research*. Sage, Thousand Oaks, CA.
- De Paoli, D., Sauer, E. and Ropo, A. (forthcoming), “The spatial context of organizations: A critique of ‘creative workspaces’”, revised for *Journal of Management & Organization*.
- Designjuices (2011), “20 inspirational office workspace designs”, available at: <http://www.designjuices.co.uk/2011/03/20-inspirational-office-workspace-designs/> (accessed 18 June 2016).
- Doorley, S. and Witthoft S. (2012), *Make Space. How to Set the Stage for Creative Collaboration*. Wiley, Hoboken, NJ.
- Dul, J. and Ceylan, C. (2011), “Work environments for employee creativity”, *Ergonomics*, Vol. 54, No. 1, pp. 12–20.
- Elsbach, K.D. and Pratt, M.G. (2007), “The physical environment in organizations”, *The Academy of Management Annals* 1, Vol. 1, pp. 81–224.
- Florida, R. (2002), *The Rise of the Creative Class: And How It Is Transforming Work, Leisure, Community and Everyday Life*, Basic Books, New York, NY.
- Glaser, B.G. and Strauss, A.L. (1967), *The Discovery of Grounded Theory. Strategies for Qualitative Research*. Aldine, New York.
- Hacking, I. (1999), *The Social Construction of What?* Harvard University Press, Cambridge, MA.
- Haner, U. (2005), “Spaces for creativity and innovation in two established organizations”,

- Creativity and Innovation Management*, Vol. 14, No. 3, pp. 288–298.
- Kallio, T., Kallio, K. and Blomberg, A.J. (2015), “Physical space, culture and organisational creativity – a longitudinal study”, *Facilities*, Vol. 33, No. 5/6, pp. 389–411.
- Kampschroer, K. and Heerwagen, J. (2005), “The strategic workplace: development and evaluation”, *Building Research & Information*, Vol. 33, No. 4, pp. 326–337.
- Kristensen, T. (2004), “The physical context of creativity”, *Creativity and Innovation Management*, Vol. 13, No. 2, pp. 89–96.
- Lewis, M. and Moultrie, J. (2005), “The organizational innovation laboratory”, *Creativity and Innovation Management*, Vol. 14, No. 1, pp.73–83.
- Lindahl, G. (2004), “The innovative workplace”, *Facilities*, Vol. 22, No. 9/10, pp. 253–258.
- Maarleveld, M., Volker, L. and van der Voordt, T.J.M. (2009), “Measuring employee satisfaction in new offices – the WODI toolkit”, *Journal of Facilities Management*, Vol. 7, No. 3, pp. 181–197.
- MacKinnon, D.W. (1962), “The nature and nurture of creative talent.” *American Psychologist*, Vol. 17, pp. 484–495.
- Magadley, W. and Birdi, K. (2009), “Innovation labs: an examination into the use of physical spaces to enhance organizational creativity”, *Creativity and Innovation Management*, Vol. 18, No. 4, pp. 315–325.
- Martens, Y. (2011), “Creative workplace: instrumental and symbolic support for creativity”, *Facilities*, Vol. 29, No. 1/2, pp. 63–79.

- McCoy, J.M. (2005), "Linking the physical work environment to creative context", *Journal of Creative Behaviour*, Vol. 39, No. 3, pp. 169–191.
- Miles, M., & Huberman, A. (1994), *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA, Sage.
- Mumford, M.D. (2003), "Where have we been, where are we going? Taking stock in creativity research", *Creativity Research Journal*, Vol. 15, pp. 107–120.
- Mumford, M.D. and Gustafson, S.B. (1988), "Creativity syndrome: integration, application and innovation", *Psychological Bulletin*, Vol. 103, pp. 27–43.
- Pemsel, S., Widèn, K. and Hansson, B. (2010), "Managing the needs of end-users in the design and delivery of construction projects", *Facilities*, Vol. 28, No. 1/2, pp. 17–30.
- Ropo, A., Sauer, E. and Salovaara, P. (2013), "Embodiment of leadership through material place", *Leadership*, Vol. 9, No. 3, pp. 378–395.
- Sailer, K. (2011), "Creativity as social and spatial process", *Facilities*, Vol. 29, No. 1/2, pp. 6–18.
- Salovaara, P. (2014), Video: "Leadership in spaces and places", *Organizational Aesthetics* 4. Available at: <http://digitalcommons.wpi.edu/oa/vol3/iss1/8/>.
- Sezgin, K. (2004), "Relating building attributes to end user's needs: 'the owners-designers-end users equation'", *Facilities*, Vol. 22, No. 9/10, pp. 247–252.
- Strauss, A. and Corbin, J. (1990), *Basics of Qualitative Research. Grounded Theory Procedures and Techniques*. Newbury Park, CA, Sage.
- Uberflip (2012), "The world of Uberflip: office play space", available at www.uberflip.com/blog/the-world-of-uberflip-office-play-space (accessed 15 June

- 2016).
- Van Marrewijk, A. and Yanow, D. (2010), *Organizational Spaces: Rematerializing the Workaday World*, Edward Elgar, Cheltenham, England.
- Vischer, J.C. (2008), "Towards a user-centred theory of built environment", *Building Research & Information*, Vol. 36, No. 3, pp. 231–240.
- Vischer, J.C. and Zeisel J. (2008), "Process management: bridging the gap between research and design", *Design & Health Scientific Review. Evidence –based Design*, July 2008, pp. 57–61.
- Vithayathawornwong, S., Danko, S. and Tolbert, P. (2003), "The role of the physical environment in supporting organizational creativity", *Journal of Interior Design*, Vol. 29, No. 1-2, pp. 1–16.
- Wallach, M. and Kogan, N. (1965), *Modes of thinking in young children*. General Learning Press, New York.
- Warren, S. (2008), "Empirical challenges in organizational aesthetics research: Towards a sensual methodology", *Organization Studies*, Vol. 29, No. 4, pp. 559–580.
- Williams, A. (2009), "Creativity syntax: an emerging concept for creativity in the workspace", *Design Principles and Practices: An International Journal*, Vol. 3, No. 5, pp. 193–202.
- Woodman, R. W., Sawyer, J. E., and Griffin, R.W. (1993), "Toward a theory of organizational creativity." *Academy of Management Review*, Vol. 18, pp. 293–322.
- Young S. L., (2016), "Creative workplace characteristics and innovative start-up companies", *Facilities*, Vol. 34, No. 7/8, pp. 413–432.

