

**Under pressure:
Psychological perspectives on letterpress, craft, and wellbeing**

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Abstract

Arts and crafts are widely considered to be psychologically beneficial. Letterpress, as a traditional method of printing, was made redundant by computers in the later 20th Century but has enjoyed a 'rebirth' in recent years. There are a growing number of independent presses, and universities who are recognising its potential as a pedagogical tool. As a printing method, it is no longer a necessity, so what is its role going forward? The techniques are not lost, but their value has changed. As a craft, letterpress has several distinctive qualities, particularly when compared to digital alternatives. When working with letterpress, students are no longer alone at their desks. Rather, the letterpress workshop is a social, communal space. We reflect on the resurgence of letterpress as a celebration of culture and heritage: a coming together of likeminded individuals in a community of action. What is the value of enabling students to immerse themselves in letterpress, and what are the effects of this immersion on the practitioner and their wellbeing? There is a shift in focus of letterpress from output – mass produced printed media – to process. We analyse the unique qualities of this process – its physicality, the restrictions it imposes, and the latitude it allows – and explore links to mental and physical health and wellbeing.

This paper explores the practical, conceptual, and emotional dimensions of letterpress as a craft. It draws upon personal reflection, observation, and anecdotal accounts collected over years of teaching (VS), and offers psychological perspectives on the links between letterpress, craft, and wellbeing (SRH).

Keywords

Craft
Design
Letterpress
Mental health
Printing
Wellbeing
Health
Education

Introduction

As a society, we are beginning to hold mental health in the same regard as physical health. There are an increasing number of references to mental health and wellbeing in day-to-day life, the workplace and the media. Though often used in the context of mental *ill*-health, the World Health Organisation (WHO)'s definition of mental health is positive. It describes wellbeing as a state in which individuals are resilient, productive, participate in valuable, rewarding work, contribute to their communities, and reach their full potential (WHO 2014). To be in a state of wellbeing is not just to avoid or overcome mental illness. It is to thrive, to flourish, to feel happy and fulfilled.

Creativity has been ingrained in our culture for millennia (Camic 2008: 9). The arts are generally considered to be psychologically rewarding: providing perspective, facilitating self-expression, and stimulating personal growth (All-Party Parliamentary Group on Arts, Health and Wellbeing 2017: 21). In the later part of the 19th century the Arts and Crafts movement, led by William Morris, emerged as a reaction to the Industrial Revolution. Morris opposed society's preoccupation with cheap labour, mass production and maximising profits at the psychological expense of workers. Instead, he believed that societies should promote the happiness and wellbeing of their citizens (Collins et al. 2015: 9).

Letterpress is "a method of printing in which ink is transferred from raised surfaces to paper by pressure" (Collins Dictionary 2019). In the 15th Century, Johannes Gutenberg developed methods of printing using movable type. This made printing a relatively fast and economically viable way of communicating information to the masses (Carter 1955: 243). Thus, printing followed the same principles until the late 19th century when hot-metal line-casting machines by Linotype and Monotype and the typewriter by Christopher Latham Sholes were introduced. From the 1950s the industry saw a decline in the use of letterpress and metal typesetting. Photosetting systems and small desktop machines were created, alongside the introduction of the dry-transfer lettering of Letraset. Thereafter, digital type on-screen, printed onto paper through offset litho or xerographic printing processes were established. (Baines and Haslam 2002: 78-93) Consequently, during the mid-1980s high-speed, low-cost digital techniques rendered letterpress outdated (Fleishman 2017).

Although mass production saw the demise of craft, there are a growing number of dynamic individuals who value its unique qualities (Ambrose and Harris 2015: 222). Recently, there is a marked increase in the use of letterpress by artists, designers, and scholars wanting to resurrect the process, due to its "physicality" (Florance 2015: 66). There has been a revival of small, independent presses across the UK and several universities still use letterpress as a teaching tool to "foster immersive learning" (Cooper, Gridneff and Haslam 2014). (We refer hereon to the letterpress practitioner as 'designer'.) The University of Plymouth has a well-established letterpress department, primarily utilised by BA (Hons) Graphic Communication with Typography students. Historically, and at the turn of the 20th Century, the teaching of typography within the department was undertaken to equip students with the skills to enter the printing industry (Figure 1). More recently, letterpress has been used primarily as a creative workshop space, but also to teach students historical knowledge and principles of typography. The techniques are not lost, but their value has

changed: it is no longer about production and efficiency. What is the value of enabling students to immerse themselves in letterpress, and what are the effects of this immersion on the practitioner and their wellbeing?

Figure 1:

Photographer unknown.

Date unknown.

Historical image of letterpress at Exeter School of Art and Design, now the University of Plymouth.

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Letterpress may beget the positive effects on wellbeing generally associated with creativity, but it has several distinctive features, particularly in comparison to digital alternatives (Richard 2016; Jury 2004: 24). These are reflected in students' initial perceptions: *letterpress can be hard work. There needs to be order. It is repetitive, and at times painstaking. The work must be structured. One must be systematic and precise in crafting the design. It can be fiddly.* Yet, once they gain confidence in the process, many students draw upon deeper, more emotional responses. *Letterpress is soothing, therapeutic, calming, liberating.* Students acknowledge that letterpress, as a printing method, is no longer a necessity, yet they display a genuine want for it.

This paper explores the practical, conceptual, and emotional dimensions of letterpress as a craft. Since summer 2017, we have observed that students are becoming more likely to notice and share their personal connection to their letterpress practice. We reflect upon and frame these conversations around personal experiences, observations, and anecdotal accounts drawn from 22 years of teaching at the University of Plymouth. We offer perspectives on the potential links between letterpress, craft, and wellbeing and review graphic design and psychological theory and literature in support.

The Rebirth of Letterpress: Cultural and Social Perspectives

There is an obvious need for students to understand the origins of digital design. Their learning embraces the 'old tech': re-evaluating its importance. It is their heritage (Twigger et al. 2015: 2). Students enjoy learning the traditional terms and mechanics of letterpress and appreciate its authenticity (Ambrose and Harris 2015: 228), honesty (Burrill 2017: 110) and nostalgia. This nostalgia concerns a collective past, one that is shared among practitioners, upheld through tradition, and representative of heritage and culture (Adams 2018). Designers are part of a select group of likeminded individuals who value and utilise this niche craft. As social creatures, group membership is essential to human wellbeing. It represents identity, purpose, and belonging, and satisfies the fundamental psychological need for meaningful connections to others (Baumeister and Leary 1995).

The sense of community and connectedness created by engagement in letterpress is central to wellbeing. It is not sufficient, however, to simply feel affiliation to a particular group. Humans have a profound and instinctual need for regular and positive interactions

with others (Baumeister and Leary 1995: 500-501). When using letterpress, students can be observed working alongside others with a common aim, showing respect and consideration in sharing space, time, knowledge, and ideas. The letterpress workshop may facilitate social interaction and provide an opportunity for mutual support and encouragement. The psychological benefits of both giving and receiving social support are well established. Galla and Vella-Brodrick (2008) found that social support explained 44% of the variance in the subjective wellbeing scores of a large sample of adults, beyond that explained by personality and sociodemographic factors. Siedlecki et al. (2014) measured experiences of social support and facets of wellbeing across the lifespan. They found that believing that support is available, as well as actually receiving it, were significant predictors of life satisfaction. Providing support to others also predicted positive mood.

Students contribute to the development – or as they have described, the rebirth – of letterpress by exploring its possibilities and boundaries. Students can be observed not only preserving the craft but revitalising it through their creative practice. They are making it relevant in the modern world, bringing letterpress, the analogue, into the digital arena, merging old and new. Participation in meaningful activities, such as the preservation of heritage and craftsmanship, is central to wellbeing (Foresight, 2008; Persson et al., 2001; WHO, 2014).

A Shift in Focus: From Output to Process

Historically, letterpress was a means of maximising efficiency. Since its rebirth, focus has shifted from the output – mass produced printed media – to the process. Edwards, Lockheart and Raein (2003) note that although there are differences in design output between digital and analogue methods, the key distinction is in the process. When working digitally, there is a disconnect between design and production. Students' perspective comprises design only as printing takes place elsewhere. Conversely, letterpress enables students to see the entirety of this process (Figure 2); they describe it as *design where you can see the bigger picture, and not just the screen*. They cannot, however, see the final design before it is printed. Type is set in negative, upside down and right to left, with pictorial space being abstracted. This stimulates students' imagination of space and composition enabling a greater understanding of their design decision making. (Edwards, Lockheart, and Raein 2003: 12) (Figure 3). When working digitally students can make instant design decisions towards their end product (Pigford 2010). With increased focus on the final outcome, there is less opportunity to take ownership of how the work is produced and what is gained from "trusting the process" (Pigford 2010). In letterpress, emphasis on production efficiency is removed and the output itself becomes part of the process. Consequently, students and practitioners may be more intrinsically motivated – motivated by the activity itself because it is inherently gratifying and rewarding – than extrinsically motivated – motivated by achieving an outcome (Deci and Ryan 2000). This focus on process rather than result is comparable to art therapy, in which the experience of making, rather than the end product, is the goal (Marshalsey 2015).

Figure 2.
Victoria Squire

2014

The University of Plymouth Letterpress workshop.

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Figure 3.

Lloyd Russell

2015

Type set in a galley

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There is a shift in the value of letterpress from output to process, and this shift may increase intrinsic motivation. Participating in intrinsically motivating activities is essential for wellbeing (Ryan and Deci 2000), but what can this process tell us about the relationship between craft and wellbeing? Compared to digital alternatives, letterpress is restrictive. Why then, do students describe it as liberating? It is loud, messy, and laborious, so why do students find it calming and soothing? Its results are unpredictable, so why do students feel more in control?

Letterpress requires order and precision. The process is controlled, structured, methodical, and systematic. It cannot be rushed. Early art therapists based their practice in part on the premise that rhythmic and repetitive, coordinated action is healing and therapeutic because it reflects the innate tendency to organise stimuli into logical, sequential order (Kagin and Lusebrink 1978: 173). Indeed, repetitive movements have been shown to increase serotonin (Jacobs et al. 2002), a neurotransmitter associated with positive mood and feelings of serenity.

Although students acknowledge that letterpress is time-consuming, they consider it worthwhile. There is time for immersion, to make calculated choices (Meaney 2015: 9), and to reflect (Cooper and Gridneff 2009), enabling new insight (Edwards, Lockheart and Raein 2003). Some students report that letterpress allows them to get lost in the addictive action and rhythm of *doing*: they become *lost in work, time flies by*. “Their work becomes an extension of their body and space” (Pigford 2010), and “time and worries disappear” (Heller 2018). This phenomenon is known as flow: complete immersion, deep engagement, and optimal enjoyment such that awareness of self, surroundings, and time is lost (Csikszentmihalyi and Csikszentmihalyi 1988). Flow is associated with profound gratification, elation, and satisfaction, as well as reduced stress and anxiety: worries are replaced with complete focus upon the task in hand (Gutman and Schindler 2007: 75). In this way, it can be likened to mindfulness, which premises that attending fully to the present moment is beneficial to wellbeing in reducing ruminative thought (Deyo et al. 2009). That students describe flow during letterpress is not surprising: it is commonly reported by artists and craftspeople (Gutman and Schindler 2007: 75). The experiences they describe – reward, accomplishment, mastery, self-esteem, and purpose (e.g. Burt and Atkinson 2012) – are central to models of wellbeing (e.g. Koltko-Rivera 2006; Ryan & Deci, 2000; Ryff and Keyes 1995; Seligman 2002).

The results of letterpress can vary greatly – each print is unique and has its own “character and individuality” (Burrill 2017: 110). Some students find this unknown aspect to

be the most exciting. They liken it to the natural world where everything is different and raw beauty and mistakes add an element that computers cannot replicate. Like the final print, the designer is unique (Figure 4). Within our increasingly homogenised world, do students find this realness and imperfection a refreshing change to the predictable uniformity of the digital era, and the perfectionism it demands? Perfectionism and concern over mistakes are reliably associated with depression, anxiety, and stress (Smith et al. 2017). The letterpress designer has limited ability to control, or even predict, the outcome, reducing pressure. In fact, because imperfection is inevitable, it is embraced as part of design. Students reflect on their *happy accidents* and mistakes are valued as assets to creativity (Smith and Henriksen 2016).

Figure 4.

Lloyd Russell

2015

Imperfection in printing, texture from wood type.

© Image courtesy of Lloyd Russell

Students describe letterpress as a *reliable* process despite its unpredictability. They find that its physicality allows them to be in control, *with no computer crashes*. There is a relationship between hand and eye, engaging “the student in a holistic relationship with the physical world” Pigford (2010). The connection between designer, typography, space, paper, and ink is lost in digital printing. The computer acts as an intermediary, creating an “artificial arrangement of distances” (Rigley 2005), removed from any physical, tactile experience (Edwards, Lockheart and Raein 2003). Counter to this, letterpress is a tactile, *getting your hands dirty*, and “often mysterious” (Dixon 2012) process. The letterpress workshop is a hive of tangible, sensual activity: students must visually examine and select letterforms within typecases, feel their weight and texture, and consider their materials, (Ambrose and Harris 2015: 224). Sounds echo throughout the workshop, there is a smell of fresh ink as it dries. Learning is multi-sensory, intuitive, and experiential (Edwards, Lockheart and Raein 2003), making letterpress more varied, stimulating and soulful (Burrill 2017: 108) than digital alternatives. Handcrafts, including textiles (Pöllänen 2015a), knitting (Corkhill, et al. 2014), and clay modelling (Kruk et al. 2014), have been associated with improved wellbeing, stress reduction, and relaxation. Like letterpress, these activities are tangible and tactile. They involve working with one’s own hands, which can be satisfying and rewarding (Pöllänen 2015b: 89-90).

Letterpress requires frequent and varied physical activity. In addition to the rhythmic and repetitive movements of typesetting, students must navigate the workshop to, for instance; locate and collect letterforms, transport a chase to the press, and manually operate the press itself, which can be physically demanding. Students remark that they enjoy being physically active as they work, and benefits of physical activity on wellbeing include improved physical health (Bauman 2004), reduced depression and anxiety (Carek, Laibstain, and Carek 2011), and increased happiness and life satisfaction (Stubbe et al. 2007). By contrast, sedentary behaviour – i.e. sitting for extended periods of time, as happens when working digitally – has a negative impact on physical and emotional wellbeing (Kilpatrick et al. 2013). Letterpress practitioners may be enhancing their wellbeing simply by standing often and moving regularly (Puig-Ribera et al. 2015).

Digital work is physically passive yet demands considerable mental focus. Students can make continuous decisions: typeface, size, weight, and colour can be changed instantaneously and the options are infinite. By contrast, letterpress entails inherent restrictions on typeface, size of type, number of letterforms, and size of paper stock. Physical objects – wooden or metal type and furniture, must fit together. Students must plan and prepare their typographic design within a framework and use precise measurements when composing. Making changes takes time. In letterpress, students are faced with clear boundaries within both design parameters and physical process but on computer, infinite amounts of time and energy can be spent imagining and analysing endless possibilities. For the designer, this may be overwhelming (e.g. Kristensen, 2006). More choices can mean less motivation to choose, and less satisfaction in the final choice (Scheibehenne, Greifeneder, and Todd 2010). The restrictions of letterpress may therefore be comforting and refreshing, and may even be conducive to creative success (Sellier and Dahl 2011).

Despite its restrictions, students describe letterpress as ‘liberating’. Liberating, because letterforms can be physically moved within the design and are not dictated by digital boxes. Liberating, as the designer is not confined to screen size. Liberating, because risks can be taken and play can take place. Once students have learnt the fundamentals of typography and layout design and are proficient in applying these principles, many begin to challenge the conventions (Figure 5). There is freedom to explore the type cases and experiment with layout, typography, ink and colour choices adding “variability and uniqueness” (Ambrose and Harris 2015: 228). Experimentation, exploration, play, discovery, and risk-taking can occur and the work can *make itself*. Some students wondered whether these experiences are heightened due to the digital takeover reducing opportunity for hands-on craft. Indeed, as Baines and Dixon note “Certainly the ideas of digital ‘escape’ are repeatedly found in rationales for working with letterpress with students, even the language of description frequently touching on the therapeutic, even spiritual” (Baines and Dixon 2012).

Figure 5.

Lloyd Russell

2015

Experimentation in letterpress

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This learning process is likely to be motivating because it satisfies the basic human needs for competence (perceived ability and success), autonomy (freedom to follow one’s own interests and ideas), and relatedness (a sense of security and support from which to safely explore) (Deci and Ryan 2000). Participating in intrinsically motivating activities is conducive to wellbeing, but the autonomy to experiment and explore may be particularly important in this regard. Non-creative occupations and neoliberal creative occupations (such as public relations, advertising, or computer programming) are associated with lower levels of subjective wellbeing than traditionally creative occupations (including crafts) that afford more autonomy, freedom, and control (Fujiwara and Lawton 2016). It is interesting that students are not only mastering their craft but are seeking opportunities to develop

their practice further by challenging convention, taking risks, and experimenting. Personal growth – to develop, improve, reach one’s potential and face new challenges – is central to theories of wellbeing (Koltko-Rivera 2006; Ryan & Deci, 2000; Ryff and Keyes 1995; Seligman 2002).

Conclusion

Humans require occupation to maintain wellbeing (Gutman and Schindler 2007: 81), but mere occupation is not enough: it must have value and meaning. The Value and Meaning in Occupation model (Persson et al. 2001) posits that activities must have concrete, symbolic, or self-reward value. Occupation has concrete value if it strengthens one’s capabilities or produces tangible results. It has symbolic value if it has personal, social, or cultural meaning. It has self-reward value if it is enjoyable and engaging. As a creative activity, letterpress has concrete, symbolic, and self-reward value, but, especially in comparison to digital creative techniques, it has several distinctive qualities that may be particularly beneficial to the wellbeing of students. Its heritage and rebirth give it significant social and cultural meaning and its renewed focus on process (taking the student into new and uncharted waters), rather than product, make it notably engaging and conducive to flow. The process itself is *repetitive, messy, fiddly, and painstaking*, but it is also calming, satisfying, consuming and transforming.

This paper represents an initial exploration of the link between letterpress as a craft and wellbeing. We reflect upon conversations with, and observations of, design students engaging in letterpress, and frame these reflections within psychological and design literature. The work is preliminary but has implications for both design and psychology. Our exploration suggests that there is value in enabling students to immerse themselves in letterpress, and that letterpress may have psychological benefits above other forms of creative and meaningful work. By nature, it is slow, rhythmic, and physical. Add to this its connectedness to heritage, culture, and community, and the effects of immersion in this craft include a broader sense of purpose, connectedness, and mastery. In this paper, we touch upon the shift in design focus from product to process entailed in letterpress. It could be argued that developments in technology and design have resulted in the loss of the spirit of the analogue: the physicality, the laboriousness, and the craftsmanship. Against the background of the slow movement, further work should explore the implications of this shift for both creativity and wellbeing, and formally investigate practitioners’ experiences of traditional craft – particularly in comparison to digital alternatives – both nationally and globally. Identifying if, and how, traditional crafts are differentially conducive to creativity and wellbeing could have broad-ranging and interesting implications for design – particularly in the development of haptic technologies – and at the interface of craft and psychology.

References

- Adams, Amy (2018), 'Revival of the Letterpress', *The Craftsmanship Initiative*, <https://craftsmanship.net/blog/revival-of-the-letterpress/>. Accessed 28 August 2019.
- All-Party Parliamentary Group on Arts, Health and Wellbeing (2017), *Creative Health: The Arts for Health and Wellbeing*, London: Author.
- Ambrose, G. and Harris, P. (2015), *Design Genius*, UK: Bloomsbury Publishing Plc, p. 228.
- Baines, P. and Dixon, C. (2012), 'Changing Perspectives', *6x6 Project*, UK.
- Baines, P. and Haslam, A. (2002), *Type and Typography*, UK: Laurence King Publishing Ltd. pp. 78-93.
- Bauman, Adrian E. (2004), 'Updating the evidence that physical activity is good for health: an epidemiological review 2000–2003', *Journal of science and medicine in sport*, 7:1, pp. 6-19.
- Baumeister, Roy F. and Leary, Mark R. (1995), 'The need to belong: desire for interpersonal attachments as a fundamental human motivation', *Psychological bulletin*, 117:3, pp. 497-529.
- Brown, S.L., Nesse, R.M., Vinokur, A.D. and Smith, D.M. (2003), 'Providing social support may be more beneficial than receiving it: Results from a prospective study of mortality', *Psychological science*, 14:4, pp. 320-327.
- Burrill, A. (2017), *Make It Now*, UK: Penguin Random House. pp. 108-110.
- Burt, Emily L. and Atkinson, Jacqueline (2012), 'The relationship between quilting and wellbeing', *Journal of Public Health*, 34:1, pp. 54-59.
- Camic, Paul M. (2008), 'Playing in the Mud: Health psychology, the arts and creative approaches to healthcare', *Journal of Health Psychology*, 13, p. 289.
- Carek, P.J., Laibstain, S.E. and Carek, S.M. (2011), 'Exercise for the treatment of depression and anxiety', *The International Journal of Psychiatry in Medicine*, 41:1, pp. 15-28.
- Carter, T.F. (1955) *The Invention of Printing in China and its Spread Westward*, 2nd edn, revised by L.C. Goodrich. New York: The Ronald Press. (Orig. pub. 1925.)
- Collins Dictionary, (2019), *Letterpress*, <https://www.collinsdictionary.com/dictionary/english/letterpress>. Accessed 19 July 2019.
- Collins, W., Hass, A., Jeffery, K., Martin, A., Medeiros R., and Tomljanovic, S. (2015), 'Graphic Design and Print Production Fundamentals', *Graphic Communications Open Textbook Collective*, Victoria, B.C.: BCcampus. <https://opentextbc.ca/graphicdesign/> Accessed 22 August 2019, p. 9.

- Cooper, A. and Gridneff, R. (2009), *The Changing Face of Letterpress*, London College of Communication, 5-11 March 2009. [Exhibition catalogue].
- Cooper, A., Gridneff, R., and Haslam, A. (2014), 'Letterpress: Looking Backward to Look Forward, Visible Language', *The Journal of Visual Communication Research*, 47:3, <http://visiblelanguagejournal.com/issue/158/article/876>. Accessed 20 August 2019.
- Csikszentmihalyi, Mihaly and Csikszentmihalyi, Isabella S. (1988), *Optimal experience: Psychological studies of flow in consciousness*, New York: Cambridge University Press.
- Deci, Edward, L. and Ryan, Richard M. (2000), 'The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behaviour', *Psychological Inquiry*, 11:4, pp. 227-268.
- Dixon, C. (2012), 'Something to say', *Eye Magazine Blog*, <http://www.eyemagazine.com/blog/post/something-to-say>. Accessed 30 August 2019.
- Deyo, M., Wilson, K. A., Ong, J., and Koopman, C. (2009), 'Mindfulness and Rumination: Does Mindfulness Training Lead to reductions in the Ruminative Thinking Associated With Depression?', *Explore*, 5:5, 265-271.
- Edwards, S., Lockheart, J., and Raein, M. (2003), 'The Codex Project', *TypoGraphic* no. 60 p. 12.
- Fleishman, G. (2017), 'How Letterpress Printing Came Back From the Dead', *Wired*, <https://www.wired.com/story/how-letterpress-printing-came-back-from-the-dead/>. Accessed 26 July 2019.
- Florance, C. (2015), 'The changing face of contemporary letterpress in Australia', *The La Trobe Journal*, 95, p. 66.
- Foresight Mental Capital and Wellbeing Project (2008), *Final Project Report*, London: The Government Office for Science, p. 10.
- Fujiwara, Daniel and Lawton, Ricky N. (2016), 'HAPPIER AND MORE SATISFIED? CREATIVE OCCUPATIONS AND SUBJECTIVE WELLBEING IN THE UNITED KINGDOM', *Psychosociological Issues in Human Resource Management*, 4:2, p. 50-74.
- Galla, Emma N. and Vella-Brodrick, Dianne A. (2008), 'Social support and emotional intelligence as predictors of subjective well-being', *Personality and Individual Differences*, 44:7, pp. 1551-1561.
- Gutman, Sharon A. and Schindler, Victoria P. (2007), 'The neurological basis of occupation', *Occupational Therapy International*, 14:2, pp. 71-85.

- Heller, S. (2018), 'Hot Off The Letterpress', *Print*, <https://www.printmag.com/design-culture-2/culturally-related-design/pressing-on-film/>. Accessed 26 July 2019.
- Jacobs, B.L., Martin-Cora, F.J. and Fornal, C.A. (2002), 'Activity of medullary serotonergic neurons in freely moving animals', *Brain Research Reviews*, 40:1-3, pp. 45-52.
- Jury, David (2004), *Letterpress: the allure of the handmade*, Mies: RotoVision.
- Kagin, Sandra L. and Lusebrink, Vija B. (1978), 'The expressive therapies continuum', *Art Psychotherapy*, 5:4, p. 173.
- Kilpatrick, M., Sanderson, K., Blizzard, L., Teale, B. and Venn, A. (2013), 'Cross-sectional associations between sitting at work and psychological distress: reducing sitting time may benefit mental health', *Mental Health and Physical Activity*, 6:2, pp.103-109.
- Koltko-Rivera, Mark E. (2006), 'Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification', *Review of general psychology*, 10:4, pp. 302-317.
- Kristensen, J. (2006), *Firefly Press*, Somerville Massachusetts, https://www.youtube.com/watch?v=lv69kB_e9KY. Accessed 24 August 2019.
- Kruk, K.A., Aravich, P.F., Deaver, S.P. and deBeus, R. (2014), 'Comparison of brain activity during drawing and clay sculpting: A preliminary qEEG study', *Art Therapy*, 31:2, pp. 52-60.
- Marshalsey, Lorraine (2015), 'Investigating the experiential impact of sensory affect in contemporary communication design studio education', *International Journal of Art & Design Education*, 34:3, pp. 336-348.
- Meaney, D. (2015), 'A Lasting Impression: The Value of Connecting with Letterpress' B.A. Design thesis, Dublin Institute of Technology, p. 9
- Newsom, Jason T. and Schulz, Richard (1996), 'Social support as a mediator in the relation between functional status and quality of life in older adults', *Psychology and aging*, 11:1, pp. 34-44.
- Nuttall, D. (2007), 'Friends of the National Printing Heritage Trust', *Printing History News*, <http://printinghistoricalsociety.org.uk/NEWS14a.pdf>. Accessed 26 July 2019.
- Persson, D., Erlandsson, L.K., Eklund, M. and Iwarsson, S. (2001), 'Value dimensions, meaning, and complexity in human occupation-a tentative structure for analysis', *Scandinavian journal of occupational therapy*, 8:1, pp. 7-18.
- Pigford, A. J. (2010), *Thinking Through Making: Letterpress in Design Education*, <https://vimeo.com/9731950>. Accessed 19 August 2019.

- Pöllänen, Sinikka H. (2015a), 'Elements of crafts that enhance well-being: Textile craft makers' descriptions of their leisure activity', *Journal of Leisure Research*, 47:1, pp. 58-78.
- Pöllänen, Sinikka H. (2015b), 'Crafts as leisure-based coping: Craft makers' descriptions of their stress-reducing activity', *Occupational Therapy in Mental Health*, 31:2, pp. 83-100.
- Puig-Ribera, A., Martinez-Lemos, I., Giné-Garriga, M., González-Suárez, Á.M., Bort-Roig, J., Fortuno, J., Munoz-Ortiz, L., McKenna, J. and Gilson, N.D. (2015), 'Self-reported sitting time and physical activity: interactive associations with mental well-being and productivity in office employees', *BMC Public Health*, 15:1, pp. 72.
- Richard, Alan (2016), 'Is letterpress relevant to digital design? A critical analysis of the letterpress renaissance in the UK and the USA in relation to contemporary design practice', B.A. (Hons) Graphic Design dissertation, Plymouth: Open University and Plymouth College of Art.
- Rigley, S. (2005), 'Thinking in solid air', *Eye*, 57:17, <http://www.eyemagazine.com/feature/article/thinking-in-solid-air>. Accessed 27 July 2019.
- Ryan, Richard M., and Deci, Edward L. (2000), 'Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being', *American Psychologist*, 55:1, pp. 68-78.
- Ryff, Carol D. and Keyes, Corey L.M. (1995), 'The structure of psychological well-being revisited', *Journal of personality and social psychology*, 69:4, pp. 719-727.
- Scheibehenne, B., Greifeneder, R. and Todd, P.M. (2010), 'Can there ever be too many options? A meta-analytic review of choice overload', *Journal of consumer research*, 37:3, pp. 409-425.
- Seligman, Martin E.P. (2002), *Authentic happiness: Using the new positive psychology to realize your potential for lasting fulfillment*. New York: Free Press.
- Sellier, Anne-Laure and Dahl, Darren W. (2011), 'Focus! Creative success is enjoyed through restricted choice', *Journal of Marketing Research*, 48:6, pp. 996-1007.
- Siedlecki, K.L., Salthouse, T.A., Oishi, S. and Jeswani, S. (2014), 'The relationship between social support and subjective well-being across age', *Social indicators research*, 117:2, pp. 561-576.
- Smith, M.M., Saklofske, D.H., Yan, G. and Sherry, S.B. (2017), 'Does Perfectionism Predict Depression, Anxiety, Stress, and Life Satisfaction After Controlling for Neuroticism?', *Journal of Individual Differences*, 38:2, pp. 63-70.

- Smith, Shaunna and Henriksen, Danah (2016), 'Fail again, fail better: Embracing failure as a paradigm for creative learning in the arts', *Art Education*, 69:2, pp. 6-11.
- Sommer, Kristin L. and Bourgeois, Martin J. (2010), 'Linking the perceived ability to influence others to subjective well-being: A need-based approach', *Social Influence*, 5:3, pp. 220-244.
- Stubbe, J.H., De Moor, M.H.M., Boomsma, D.I. and de Geus, E.J.C. (2007), 'The association between exercise participation and well-being: a co-twin study', *Preventive medicine*, 44:2, pp. 148-152.
- Taylor, John and Turner, R. Jay (2001), 'A longitudinal study of the role and significance of mattering to others for depressive symptoms', *Journal of Health and Social Behavior*, pp. 310-325.
- Thomas, Patricia A. (2010), 'Is it better to give or to receive? Social support and the well-being of older adults', *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 65:3, pp. 351-357.
- Twigger A. T., Cassidy, T., Evans, M., Gifford, E., and Walker, S. (2015), 'Design for 'Domestication': The Decommmercialisation of Traditional Crafts,' *The Value of Design Research 11th European Academy of Design Conference*, France, p. 2.
- World Health Organisation (2014), 'Mental health: a state of well-being', *Fact files*, https://www.who.int/features/factfiles/mental_health/en/. Accessed 28 August 2019.

Author's Biographies

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Victoria is an educator, researcher and designer at the University of Plymouth, UK. Her research explores graphic design in relation to sustainability goals, particularly wellbeing, and sustainable communities.

Victoria is currently a Lecturer (Graphic Communication with Typography) and co-ordinator of the Message research cluster. She is the co-founder and co-editor of Message; an academic Graphic Communication Design journal.

Victoria authored the book *Getting it right with type* (Laurence King Publishers, UK) in 2006 and her research as design has been exhibited in the UK, USA and Denmark.

Sophie Homer

Following her PhD in clinical psychology, Sophie won grant funding to implement an intervention to improve the mental health and wellbeing of researchers at work. She

managed this project as Senior Researcher at the University of Plymouth before taking up a Lectureship in Applied Psychology.

Sophie's research and teaching interests are in clinical psychology, mental health, and wellbeing. She is passionate about preventative approaches and has delivered keynote presentations on this topic. Sophie is a Fellow of the Higher Education Academy and in 2017 she won a British Psychological Society award for excellence in teaching of psychology.

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