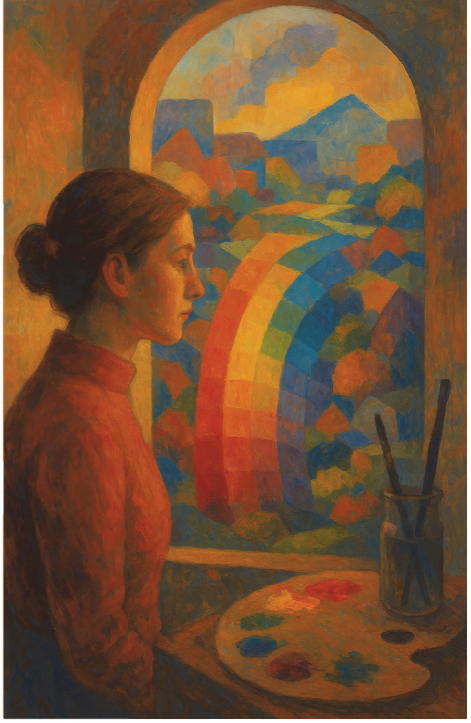

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ANVUR Agenzia Nazionale Valutazione sistema Universitario e Ricerca
APeJ Academic Publications eJournal
BASE Bielefeld Academic Search Engine
DBH Database for statistikk om høyere utdanning
DOAJ Directory of Open Access Journals
EZB Elektronische Zeitschriftenbibliothek Regensburg
JURN Search tool for open access content
ROAD Directory of Open Access scholarly Resources
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All articles submitted to the Color Culture and Science Journal are peer-reviewed according to the following procedure:

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The Associate Editors evaluate each article to determine if the topic and content are of interest to the journal. Once the article passes the initial review, the Associate Editors select several reviewers from the Editorial Board based on their expertise in a particular subject area or topic.

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Two or three experts review each article with a blind peer-review process where the reviewers are kept anonymous. Reviewers are asked to evaluate the manuscript based on the following criteria:

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- Technical merit and/or validity
- Soundness of methodology
- Completeness of the reported work
- Conclusions supported by the data
- Correct acknowledgment of the work of others through reference
- Effectiveness of the manuscript (organization and writing)
- Clarity of tables, graphs, and illustrations
- Importance to color researchers
- Relevance to color practices

If the article is accepted with major revisions, the author(s) are asked to improve the article according to the reviewers' suggestions. The revised article will then be submitted for further review.After collecting the reviewers' reports, the Associate Editors recommend the acceptability of the article to the Editor-in-Chief.

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The CCSJ accept papers on a wide range of topics on color, including and not limited to the following:

1. Color and Measurement/Instrumentation. Colorimetry, photometry and color atlas: method, theory and instrumentation; quality control and food coloring, dyes, organic and sustainable color.
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3. Color and Lighting. Metamerism, color rendering, adaptation, color constancy, appearance, illusions, color memory and perception, color in extra-atmospheric environments, lighting design, lighting technologies, visual comfort.
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11. Color and Education. Pedagogy, didactics of color, aesthetic education, artistic education.
12. Color and Communication/Marketing. Graphics, communication, packaging, lettering, exposure, advertising.

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Contemporary Views on Color: Research and Applications between Science, Culture and Design

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ABSTRACT

This review analyzes contributions that testify to the vitality and plurality of approaches with which color remains the object of study and reflection in the most diverse disciplinary fields, which embrace a broad and articulated thematic arc. It ranges from visual perception and sensory correspondences to the aesthetics of sustainable and inclusive design through communication strategies in the financial, marketing, and cultural fields to the conservation of photographic heritage and critical reflection on chromatic symbolism. A common thread emerges clearly: the centrality of color as a tool of meaning and mediator between perception, culture, and technology. The set of research offers an updated and in-depth cross-section of current research on color through methodologies that intertwine empirical investigation, semiotic analysis, visual experimentation, study of design practices and technical-scientific evaluation of materials. This variety reflects the intrinsically transdisciplinary nature of color studies, which are nourished by the dialogue between the hard sciences and the human sciences, between laboratory experimentation and field applications, and between the most advanced technologies and the symbolic and anthropological dimension. The text is, therefore, configured as a coherent and stimulating mosaic, capable of reflecting the richness of perspectives with which color continues to be questioned in contemporary times.

KEYWORDS (Color, Transdisciplinarity, Perception, Symbolism, Inclusion, Sustainability)

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1. Introduction: Research Themes and Trajectories

1.1. *Color, Perception, and Multi-sensory Communication*

The topic of the visual and sensorial experience of color is addressed by two studies that, although with different methodologies, share an interest in subjective perception and the role of display technologies in determining chromatic effects. The research by Phuangsuwan, Mepean, Ayama, Mizokami, and Ikeda, (Phuangsuwan *et al.*, 2025) and analyzes the effects of Simultaneous Color Contrast (SCC) through three different display techniques: printed paper, LCD display, and the so-called "two-rooms technique". The results highlight how the display device and the perceptual mechanisms involved strongly influence simultaneous contrast. While in the cases of paper and LCD, the phenomenon seems to depend on the chromatic induction of the surrounding colors, in the case of the two-rooms technique, a combination of chromatic adaptation and induction is observed, which generates more marked effects (Phuangsuwan & Ikeda, 2018). The data obtained, analyzed with ANOVA, and compared with the theories of opposing and complementary colors show how the complementary color theory provides a more accurate prediction of hue shifts than the opponent color theory, in accordance with Pridmore (2007).

In a similar field but oriented to the sensorial and applicative dimension of marketing, Alessandro Bortolotti explores the cross-modal correspondences between color and other senses through the lenses of neuromarketing. The research highlights how color, especially red, can amplify the perception of sweetness or sensorial intensity and underlines the importance of an integrated multi-sensory strategy to build memorable experiences and lasting emotional relationships with the brand. Spence and Gallace (2011) observed that multi-sensory design is configured as a powerful tool to influence consumer behavior in a profound and often unconscious way. Sight, which conveys up to 80% of environmental information (Hutmacher, 2019), is confirmed as the key sense in designing products' visual and chromatic identity.

1.2. *Color, Sustainability, and Inclusion in Design and Fashion*

This section collects themes that deal with color concerning sustainable and inclusive design practices, focusing on fashion and the representation of diversity. The study by Dantas, Curth, Teixeira, Soares Junior, and Batista (Dantas *et al.*, 2025) focuses on the role of color in communicating sustainability values in two Brazilian slow fashion footwear brands, Vegalli and Urban Flowers. The semiotic and visual analysis of 33 models reveals a prevalence of achromatic and earthy tones, such as black, brown, and beige, associated with durability, functionality, and connection with nature (Jung & Jin, 2014; Holtzschue, 2012). The calibrated use of bright colors — green, orange, red — helps to evoke emotions and exclusivity, significantly when declined in low-saturation artisanal patterns, which generate a nostalgic and familiar atmosphere. This chromatic strategy expresses an effective synthesis between aesthetics and environmental responsibility, in line with the reflections of Şener et al. (2019) and Dong et al. (2023).

The research by da Ribeiro, Schemes, and Dantas, (Ribeiro, Schemes and Dantas, 2025) instead, proposes an innovation in the field of inclusive fashion for people with visual impairment. Through qualitative and ethnographic methodologies, the authors present the tactile system "See Color", which allows blind people to independently select clothing colors, enhancing personal identity and promoting social participation. The device, which introduces a multi-sensory dimension in color analysis, strengthens the autonomy and self-esteem of users, transforming fashion into a tool for cultural inclusion (Kukiełko, 2024; von Busch, 2018). The approach is distinguished by the direct involvement of stakeholders in the design process, underlining the importance of accessible and co-participatory design.

In the review by Renata Pompas (Pompas, 2025) — Rose. Une couleur aux prises avec le genre (Bideaux, 2023) — an encyclopedic reflection on the color pink and its links with gender, sexuality, social class, and identity politics. The author's dense analysis of the book crosses different fields, from feminist movements to queer culture, from children's marketing to contemporary art, questioning the polysemy of pink: the color of submission and rebellion, of marginality and vindication. As highlighted, pink has gone from a symbol of "feminization" to a potential tool for cultural "re-signification" within the framework of a critical reflection on the relationship between aesthetics, power, and representation.

1.3. *Colour, Symbolism, and Conservation in Cultural Heritage*

Two studies address the issue of color in the context of the conservation of photographic materials and symbolic interpretation in specialized fields, with a technical-scientific and analytical approach.

The study by Hofmann and Hofmann-Sievert (Hofmann and Hofmann-Sievert, 2025) proposes a method to predict contemporary photographic materials' light stability through controlled exposure to monochromatic LEDs. The results show that pigment systems are more stable than dye systems and that light sensitivity is concentrated in the 400–550 nm range. The predictive approach proved effective for all the materials tested, except silver salt prints, indicating that selecting the least harmful exposure light can help preserve the works over time. The research follows the investigations of Wilhelm (2004) and the more recent works by Ishizuka et al. (2019) and Thickett and Grøntoft (2023), contributing to the definition of good practices for museum lighting, in particular for fragile or historical materials.

In a related field, Miąsik, Pénichon, Granzotto, and Sutherland (Miąsik *et al.*, 2025) present an in-depth technical-material analysis of the famous Polaroid 20×24, large-format instant photographs used by artists such as Warhol or Wegman. Through non-invasive and micro-invasive techniques, such as SEM-EDS, FTIR, and Py-GCMS, the study characterized the different layers and components of the materials, also identifying specific degradation products, such as hypoxanthine in P7 prints. Micro-discoloration tests highlighted a constant vulnerability to light in all generations analyzed, suggesting precautionary exposure and conservation conditions. The interdisciplinary approach employed contributes significantly to the knowledge and protection of these iconic artistic objects, which are at the center of modern research in the field of conservation (Pénichon, 2013; Casto & Valverde, 2019).

Of particular importance is the research by Prusak and Mushafiq (Prusak and Mushafiq, 2025), which addresses a still little-traveled research field: the symbolism of color in finance, studied through a CAWI survey on a sample of 60 experts in the sector. The survey revealed significant associations between colors and financial concepts, such as black for illegal activities, green for ecological finance, or gold for long-term savings.

These results, although preliminary, suggest that color can act as a non-verbal semantic code even in professional and highly codified contexts, opening new perspectives for visual communication in the economic field. As Broeder (2022), Barbato et al. (2019), and Tallarita (2017) recall, color symbolism has deep cultural roots, but its application in the financial field remains an area to be explored more systematically.

2. Transversal thematic reflections

The review of the research proposed in the previous section offers a rich and varied overview of color as an object of study and an operational tool. Beyond the disciplinary specificities and applicative contexts, it is possible to identify some common trends that testify to the emergence of new theoretical and methodological trajectories in color studies.

2.1. *Color as a cultural and codified language*

In several contributions, the idea of color as a stratified cultural code, which conveys social, political, economic, and symbolic meanings, emerges forcefully; this is the case, in particular, of Prusak and Mushafiq's work on chromatic symbolism in finance, which highlights how professionals in the sector attribute functional and shared meanings to specific shades, even without an official codification (Prusak and Mushafiq, 2025). Black, for example, is associated with the underground economy and illegal practices. At the same time, green takes on the dual meaning of sustainability and economic growth, with significant cultural variations between the West and the East.

Renata Pompas' review of Kevin Bideaux's volume also bears witness to the complexity of the color pink as a multivalent symbolic device, which crosses gender constructions, marketing strategies, social movements, and artistic representations. Pink reveals itself to be both a color of exclusion and affirmation, of stereotype and claim, confirming its profoundly polysemic nature, capable of reflecting identity and cultural tensions (Bideaux, 2023; Pompas, 2025).

Similarly, Dantas et al.'s contribution on color in Brazilian slow fashion shows how color choices are never neutral but reflect a conscious communicative intent rooted in ethical, aesthetic, and territorial values. The use of natural and desaturated tones, as well as the targeted use of vibrant colors, is part of a visual narrative that articulates sustainability, craftsmanship, and local identity (Dantas *et al.*, 2025).

2.2. *Color as a relational and situated phenomenon*

A second recurring dimension is that of color as a situated experience, strongly dependent on the perceptual, environmental, technological, and sensorial context. The studies on Simultaneous Color Contrast (SCC) by Phuangsuwan et al. and on cross-modal correspondences in neuromarketing by Bortolotti, although with different approaches, converge in underlining how color perception is not an objective fact but a dynamic and relational process, influenced by the configuration of space, the presence of objects,

lighting conditions and interactions with other sensorial stimuli (Bortolotti, 2025; Phuangsuwan *et al.*, 2025).

In particular, research on SCC shows how the same color composition can generate different effects depending on the visualization medium, visual adaptation, and environment characteristics, offering relevant implications for lighting design, exhibition design, and digital representation of color. Similarly, Bortolotti's study highlights how cross-modal perception of color is strategically exploited in experiential marketing, where the coherence between visual, olfactory, and auditory stimuli contributes to the construction of brand identity (Bortolotti, 2025).

The situated nature of color is also at the center of the research by Ribeiro et al., where color is translated into tactile language for people with visual impairments. Here, the chromatic experience emancipates itself from the visual dimension alone, showing how color can be experienced through touch, symbolically reinterpreted, and acted as a tool for autonomy. The multi-sensory and inclusive perspective that emerges from this study opens interesting prospects for accessible design and for the redefinition of aesthetic codes in a more equitable and participatory way (Ribeiro, Schemes and Dantas, 2025).

2.3. *Color as a relational and situated phenomenon*

Finally, several contributions propose color as a technical and scientific object central to the processes of conservation and evaluation of the stability of materials. The studies by Hofmann & Hofmann-Sievert and Miąsik et al. rigorously address the issue of chromatic degradation in conditions of exposure to light, proposing predictive models and advanced analytical methods to evaluate the stability of dyes (Hofmann and Hofmann-Sievert, 2025; Miąsik *et al.*, 2025).

In both cases, the need for differentiated approaches is highlighted depending on the type of material, the structure of the supports, and the characteristics of the light used. Research shows that chromatic stability is a complex parameter that cannot be deduced solely from the nature of the dye but depends on multiple interactions, such as the presence of UV absorbers, the stratigraphy of the materials, and the spectral quality of the lighting; this requires renewed attention to the conditions of museum exhibition, suggesting the use of LED lights with calibrated spectrum and, where necessary, selective filters.

In the case of the Polaroid 20×24, the chemical-structural analysis allows not only the identification of the vulnerabilities of the materials but also the recognition of the different generations of printing, contributing to a correct attribution and valorization of the works. These results confirm the importance of integrating scientific skills in curatorial and conservation processes and strengthening the dialogue between technology and cultural heritage.

3. Conclusions

This review clearly shows the conceptual density and operational breadth of color studies in the contemporary context. The research presented — conducted by the cited authors from heterogeneous disciplinary and cultural backgrounds — outlines a complex and up-to-date panorama in which color is simultaneously configured as a perceptual phenomenon, cultural symbol, design tool, scientific object, and social vector.

The first element that emerges strongly is the transversality of color as a field of study. The research presented here is not limited to a disciplinary domain but crosses neuroscience, psychology of perception, design, fashion, marketing, economics, art history, conservation of cultural heritage, and gender studies. This transversality not only enriches theoretical perspectives but invites us to reflect on the need to consolidate interdisciplinary methodological approaches capable of grasping the complexity of chromatic phenomena in their situated, dynamic, and relational dimensions.

A second significant aspect concerns the intensification of the dialogue between scientific research and design practice. Studies on the chromatic stability of photographic materials and on the perception of color in controlled environments provide helpful evidence for defining exposure, conservation, and restoration protocols (Hofmann and Hofmann-Sievert, 2025; Miąsik *et al.*, 2025; Phuangsuwan *et al.*, 2025). At the same time, investigations conducted in the fields of fashion, marketing, and inclusion, show how chromatic design, if conscious and informed, can act as a lever for environmental sustainability, social equity, and emotional involvement (Bortolotti, 2025; Dantas *et al.*, 2025; Ribeiro, Schemes and Dantas, 2025). Of particular importance are also the reflections on color as a cultural and semiotic device capable of generating meaning, building identity, and conveying values. In this sense, the analysis of pink as a gendered color (Bideaux, 2023; Pompas, 2025) and the pioneering investigation into chromatic symbolism in finance (Prusak and Mushafiq, 2025) open up still

little-explored research spaces, suggesting that color — far from being a mere aesthetic ornament — acts as a social and political code, whose meaning is always situated, negotiated and potentially transformative.

These considerations converge in outlining some future lines of development for color studies. On the one hand, the importance of deepening the link between color and digital technologies emerges, especially in the fields of visualization, artificial intelligence applied to color perception, and interactive communication. On the other, there is an urgent need to consolidate research on color and inclusion, promoting design practices that enhance perceptual and cultural diversity and that are capable of restoring agency and autonomy to historically marginalized subjects.

4. Conflict of interest declaration

The author declares that nothing has affected his objectivity or independence in producing this paper. Neither the author nor his immediate family member has any financial interest in the people, topics, or companies involved in this article. Neither the author nor his immediate family member had a professional relationship with the people and companies cited in this article. Neither the author nor his immediate family members are involved in a legal dispute with the people and the companies mentioned in this article. No conflict of interest, including financial, personal, or other relationship with other people and organizations within three years of beginning the submitted work that could inappropriately influence or be perceived to influence this work.

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6. Short biography of the author

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References

Barbato, G., Bellia, L. and Morone, A. (2019) 'How the colours of objects and light affect human emotions, performance and health. The need for a holistic approach to design indoor environment', Cultura e Scienza del Colore / Color Culture and Science Journal, 11(1), pp. 67-73. Available at: https://doi.org/10.23738/CCSJ.110108

Bideaux, K. (2023) Rose: Une couleur aux prises avec le genre. Illustrated édition. Paris: Editions Amsterdam.

Bortolotti, A. (2025) 'Exploring crossmodal correspondences through neuromarketing', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 36–44. Available at: https://doi.org/10.23738/170103.

Broeder, P. (2022) 'Colours of Emotion, Trust, and Exclusivity. A Cross-Cultural Study', Cultura e Scienza del Colore / Color Culture and Science Journal, 14(2). pp. 14-21. Available at: https://doi.org/10.23738/CCSJ.140202.

Casto, S. and Valverde, F. (2019) 'Hinging and Float Mounting 20×24" Polaroid Prints and Negatives', in Topics in Photographic Preservation 18, pp. 1–3. American institute for conservation - Washington, D.C.

Dantas, Í.J. de M. et al. (2025) 'Is there a color for sustainability in fashion products? A case study with Brazilian slow fashion footwear', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 45–56. Available at: https://doi.org/10.23738/170104.

Dong, Z.-J. et al. (2023) 'The Perceptual Evaluation of Clothing Sustainable Color in Clothing Design', Journal of Fiber Bioengineering and Informatics, 16(3), pp. 229–241. Available at: https://doi.org/10.3993/jfbim02351.

Hofmann, M. and Hofmann-Sievert, R. (2025) 'Predicting the Light Stability of Contemporary Photographic Print Materials', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 72–81. Available at: https://doi.org/10.23738/170106.

Holtzschue, L. (2012) Understanding Color: An Introduction for Designers. 4th edition. John Wiley & Sons Inc.

Hutmacher, F. (2019). Why is there so much more research on vision than on any other sensory modality? Frontiers in Psychology, 10, Article 2246. Available at: https://doi.org/10.3389/fpsyg.2019.02246.

Ishizuka, H.; Groen, E.; Uchino, N.; Shibahara, Y. and Soejima, S. (2019) 'Image Permanence of Photographic Prints under LED lighting' Proceedings of the NIP & Digital. Fabrication Conference, San Francisco, CA, USA, 29 September–2 October 2019; pp. 192–196, Available at: HTTPS://DOI.ORG/10.2352/issn.2169-4451.2019.35.192

Jung, S. and Jin, B. (2014) 'A theoretical investigation of slow fashion: sustainable future of the apparel industry', International Journal of Consumer Studies, 38(5), pp. 510–519. Available at: https://doi.org/10.1111/ijcs.12127.

Miąsik, P. et al. (2025) 'An investigation into the structure and color stability of Polaroid 20×24 prints', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 82–91. Available at: https://doi.org/10.23738/170107.

Penichon, S. (2013) Twentieth-Century Color Photographs: Identification and Care. Los Angeles: J Paul Getty Museum Pubns.

Phuangsuwan, C. and Ikeda, M. (2018) 'Simultaneous color contrast demonstrated on different devices', Journal of the Color Science Association of Japan, 42(3+), p. 54. Available at: https://doi.org/10.15048/jcsaj.42.3__54.

Phuangsuwan, C. et al. (2025) 'Effect of display techniques on simultaneous color contrast', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 23–35. Available at: https://doi.org/10.23738/170102.

Pompas, R. (2025) 'Rose. Une couleur aux proses avec le genre.: BOOK REVIEW', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 97–99.

Pridmore, R.W. (2007) Chromatic induction: Opponent color or complementary color process?, Color Research and Application, 33(1), pp. 77–81. Available at: https://doi.org/10.1002/col.20363

Prusak, B. and Mushafiq, M. (2025) 'Interpreting colour symbolism in finance- Insights of financial expert', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 7–22. Available at: https://doi.org/10.23738/170101.

Rana, Md.R.I., McBee-Black, K. and Swazan, I.S. (2024) 'Adaptive apparel for people with disabilities: A systematic literature review and future research agenda', International Journal of Consumer Studies, 48(3), p. e13057. Available at: https://doi.org/10.1111/ijcs.13057.

Ribeiro, F., Schemes, C. and Dantas, Í.J. de M. (2025) 'Tactile coloration for inclusive fashion: the role of "See Color" in enhancing autonomy for individuals with visual impairments', Cultura e Scienza del Colore - Color Culture and Science, 17(1), pp. 57–71. Available at: https://doi.org/10.23738/170105.

Şener, T., Bişkin, F. and Kılınç, N. (2019) 'Sustainable dressing: Consumers' value perceptions towards slow fashion', Business Strategy and the Environment, 28(8), pp. 1548–1557. Available at: https://doi.org/10.1002/bse.2330.

Spence, C. and Gallace, A. (2011) 'Multisensory design: Reaching out to touch the consumer', Psychology & Marketing, 28(3), pp. 267–308. Available at: https://doi.org/10.1002/mar.20392.

Tallarita, A.L. (2017) 'Red: the symbol in history', Cultura e Scienza del Colore / Color Culture and Science Journal, 7, pp. 7-11. Available at: https://doi.org/10.23738/ccsj.i72017.01.

Thickett, D. and Grøntoft, T. (2023) 'Review of Interpreting Gaseous Pollution Data Regarding Heritage Objects' Heritage, 6,pp. 6917–6930. Available at: HTTPS://DOI.ORG/10.3390/heritage6100361

von Busch, O. (2018) 'Inclusive Fashion—an Oxymoron—or a Possibility for Sustainable Fashion?', Fashion Practice, 10(3), pp. 311–327. Available at: https://doi.org/10.1080/17569370.2018.1507145.

Wilhelm, H. (2004) 'A Review of Accelerated Test Methods for Predicting the Image Life of Digitally-Printed Photographs—Part II'. Proceedings of the IS&T's International Conference on Digital Printing Technologies, Salt Lake City, UT, USA, 31 October 31–5 November; pp. 664–669