Blue Memories of Múceres: Exploring Rural Heritage Through Alternative Printing Techniques

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Abstract

This paper examines the pedagogical potential of delocalised workshops as a complement to traditional higher education, focusing on a cyanotype printing workshop conducted in the village of Múceres (central region of Portugal). The study explores how engaging with rural communities and territories can enhance graphic design education and produce meaningful visual outcomes. Through the implementation of a site-specific workshop, students were introduced to the historical photographic process of cyanotype whilst documenting and interpreting the local heritage, traditions, and community life.

The research methodology combined participatory observation, visual documentation, and informal conversations with both students and residents. The workshop served as a case study to analyse how alternative learning environments outside the traditional classroom can foster deeper engagement with technical processes whilst developing students' cultural awareness and social responsibility.

The findings suggest that delocalised workshops can create valuable bridges between academic knowledge and real-world contexts, enabling students to produce more meaningful and contextually-rich graphic materials. With its distinctive blue prints and experimental nature, the cyanotype process proved particularly suitable for documenting and reinterpreting rural heritage, creating a compelling visual narrative of the village's territory and community.

This study contributes to the ongoing discussion about innovative teaching methodologies in higher education and the role of graphic design in preserving and communicating rural heritage. The results indicate that such workshops can enhance students' technical skills whilst developing their capacity to engage with communities and create culturally significant work.

Keywords: *Design Education; Delocalised Learning; Cyanotype*

1. Introduction

Contemporary design education faces the challenge of balancing the development of technical skills with the formation of socially responsible professionals capable of addressing complex societal issues. As design disciplines increasingly emphasise community engagement and cultural sensitivity, educational methodologies must evolve to provide students with authentic learning experiences that transcend traditional classroom environments [1]. This paper explores the pedagogical value of delocalised workshops, specifically examining a cyanotype printing workshop conducted in Múceres, a rural village in central Portugal.

The concept of delocalised workshops—educational experiences deliberately situated outside conventional academic settings—offers promising opportunities to enrich design education through place-based and community-oriented learning. By immersing students in unfamiliar environments, these workshops can foster deeper engagement with both technical processes and cultural contexts. The cyanotype process, with its distinctive blue prints and experimental nature, provides a particularly suitable medium for exploring the documentation and interpretation of rural heritage.

2. UA.LABDESIGN

2.1 Design Laboratory in a Rural Context

UA.LABDESIGN is a design laboratory rooted in territory, dedicated to researching and developing ideas (objects and systems) that revitalise the economy based on local knowledge. Its purpose is to

speculate upon and rehearse desirable and sustainable modes of existence, considering both the creation and usage of these proposals [2].
The UA.LABDESIGN Project is an initiative of the ID+ Research Institute for Media and Culture and the Department of Communication and Art at the University of Aveiro, aiming to integrate academic research and teaching into the context of inland villages. Following a first edition held in the summer of 2023 under the aegis of the Castelões Flax Cycle, the second edition, conducted between 1st and 7th July 2024, aimed to consolidate further the relationship between academy and Portugal's inland territory, exploring the context and its knowledge systems in the production of artefacts and content with increasd meaning.

2.2 Territory and Community

Castelões is one of the 19 parishes of the municipality of Tondela, in central Portugal, located in the district of Viseu. Framed by the Caramulo Mountains, with a landscape abundant in pine forests, fertile soil, and freshwater, the granite-originated mountains are home to various species of fauna and flora, characterised by typical granite villages that invite exploration and enjoyment of nature.
This region is renowned for its production of honey, oranges, wine, and flax, with routes specifically designed to follow these themes (the Flax Route, Orange Grove Route, and the Grand Route). For the inhabitants of Castelões, and specifically the village of Múceres, agriculture has been a way of life and their primary economic activity [3].
In this and other parishes of the Tondela municipality, one can encounter traditional knowledge connected to flax, black clay, basketry, cooperage, and tinsmithing, within the context of an ageing population that attempts, as a community, to maintain these forms of knowledge and pass them to new generations in a permanent struggle to save this knowledge from extinction.

3. Theoretical Framework

3.1 Alternative Photographic Processes in Education

Alternative photographic processes, including cyanotype, have experienced a renaissance in both artistic practice and educational contexts in recent years. The cyanotype process, developed by Sir John Herschel in 1842, produces distinctive Prussian blue prints through an iron-based photosensitive solution exposed to ultraviolet light [4]. Initially used to document botanical specimens by Anna Atkins, who published the first book illustrated with photographic images, cyanotype has evolved from a scientific tool to an expressive artistic medium.
In educational contexts, alternative photographic processes offer unique advantages. Christopher James, in his comprehensive book "The Book of Alternative Photographic Processes" [4], emphasises the educational value of these historical techniques, noting that they encourage a deeper understanding of photographic principles whilst fostering creativity through their inherent unpredictability. The process requires practitioners to engage with chemistry, light sensitivity, and material properties in ways that digital photography does not necessitate, creating a more holistic learning experience.
The ability to print on paper with varying textures and thicknesses, and on different types of cotton fabric and ceramics, offers a wide range of unattainable material possibilities through other technologies.
Furthermore, the cyanotype process presents significant advantages in terms of environmental impact. The chemicals utilised—potassium ferricyanide and ammonium ferric citrate—can be disposed of with minimal impact on the environment, in contrast to many conventional photographic processes that employ more harmful chemicals. This characteristic renders it particularly suitable for workshops in rural environments, where ecological considerations are frequently paramount.

3.2 Design Pedagogy and Experiential Learning

Contemporary design education has evolved considerably beyond traditional classroom-based instruction, increasingly embracing experiential learning approaches that situate students within authentic contexts. The influential work of Frascara et al.[1] provides a compelling theoretical framework that illuminates the value of delocalised workshops such as our cyanotype project in Múceres.

Central to their perspective is the recognition that design competencies cannot be developed through methodological knowledge alone. Rather, they require the cultivation of critical thinking capacities that enable students to question assumptions, analyse contexts, and apply principled reasoning throughout the design process. This nuanced understanding of competency development aligns perfectly with our workshop approach, which deliberately placed students in unfamiliar rural environments where conventional solutions were insufficient.

Frascara and colleagues[1] emphasise the importance of structured competency-based curricula that strategically incorporate projects designed to develop specific capabilities. Delocalised workshops function as ideal vehicles for this approach, creating concentrated learning experiences that target multiple competencies simultaneously. In our cyanotype workshop, students developed not only technical proficiency with alternative photographic processes but also enhanced their abilities to engage with communities, interpret cultural contexts, and translate these insights into meaningful visual outcomes.

The authors argue persuasively for evidence-based design practice that moves beyond intuitive creativity to incorporate contextual understanding and systematic inquiry. Our workshop embodied this principle by requiring students to gather evidence through direct observation, community interaction, and material experimentation before developing their visual responses. This grounding in evidence led to more authentic and contextually appropriate outcomes than would have been possible through studio-based speculation alone.

Another key principle articulated by Frascara et al. [1] is that "design is a team sport", requiring collaboration across disciplinary boundaries. Our workshop structure deliberately fostered teamwork not only among the student participants but also between students and community members, creating a multidimensional collaborative environment. This approach reflects their assertion that contemporary challenges demand collaborative approaches that integrate diverse perspectives and expertise.

Perhaps most significantly, Frascara and colleagues [1] emphasise that "everything is a system" and that designers must maintain a systemic perspective that considers all stakeholders and potential impacts. The rural setting of our workshop provided an ideal environment for developing this systemic awareness, as students could directly observe the interconnections between cultural practices, environmental conditions, economic realities, and social dynamics within a relatively contained community ecosystem.

These theoretical principles collectively affirm the pedagogical value of delocalised workshops as powerful educational interventions. By immersing students in complex rural environments where they must navigate unfamiliar contexts, engage with diverse stakeholders, and adapt their technical practices to local conditions, such workshops cultivate precisely the sophisticated competencies that contemporary design education aims to develop. The cyanotype workshop in Múceres thus represents not merely a technical training exercise, but rather a holistic educational experience aligned with the contemporary thinking in design pedagogy.

4. Cyanotype Printing Workshop

4.1 The Proposal and Participants

The proposal for this edition of UA.LABDESIGN [2] centred on the overarching theme "The Spirit of Sharing" with the object *table* serving as the central piece of inquiry. For the cyanotype printing workshop, this focus manifested through the interaction between the participating students, the landscape and the community. The workshop explored the *table's* importance in community life and the participants' experiences within the village of Múceres, examining the symbolic values associated with it as a space for sharing meals, knowledge and flavours.

Five participants attended txhis workshop: four students from the Design courses at the University of Aveiro (undergraduate and postgraduate levels) and one staff member who works as a technical officer in the workshop facilities of the Department of Communication and Art at the same university. Beyond these primary participants, the workshop benefited from the informal participation of two younger individuals (aged 11 and 13) who shared the workshop space and developed projects within the same thematic framework, including the production of handmade paper. This heterogeneous group facilitated a rich exchange of ideas and mutual assistance with the more technical tasks.

The workshop was hosted at the headquarters of the AMA Castelões Association, housed within the former village primary school building. This location proved particularly advantageous as the space was shared with the flax workshop, creating a rich interdisciplinary environment where participants had the opportunity to engage meaningfully with traditional weavers and other artisans who were

developing projects related to the linen cycle. This spatial arrangement facilitated spontaneous cross-pollination of ideas and techniques between different craft traditions, enriching the participants' understanding of local material culture and traditional knowledge systems.

4.2 Methodology

This study's methodology draws inspiration from Pink's [5] sensory ethnography approach, which emphasises the multisensory nature of experience and knowledge. Following Pink's framework, our participant observation went beyond visual documentation to encompass the full sensory engagement with place, recording not just what was seen, but also experienced through touch, smell, taste, and sound during the cyanotype process and community interactions. This sensory dimension was particularly relevant when working with a tactile, chemical process like cyanotype in a rural setting rich with sensory stimuli.
To document this case study, a qualitative research approach was employed with data collection methods that included:
— Participant observation: The learning process, student engagement, technical challenges and interactions with community members were documented in daily field notes, capturing significant moments, conversations and observations.
— Visual documentation: Photographic records of the process (students working, interactions with the community, rest moments, intermediate works) and the outcomes (finalised cyanotype prints, exhibition installation). These visual data provided evidence of technical achievements and creative expressions.
— Informal interviews: Informal conversations with students before, during, and after the workshop explored their expectations, learning experiences, challenges, discoveries and perceived value of the relocated environment.

4.3 Workshop Structure and Development

The workshop was structured as an immersive experience of seven days of intensive work. This approach allowed students to develop both conceptual and technical skills while exploring the local context in a progressive and integrated manner.
A crucial factor in the experience's success was the participants' full-time residence in the village throughout the workshop week. This arrangement fostered not only an intensive working atmosphere but also genuine cultural engagement through shared meals and evening gatherings with the local community (village residents, visitors from neighbouring villages, students, and teaching staff). This cultural immersion went beyond conventional learning approaches, generating collectively constructed knowledge through meaningful social interactions. The proximity to both community and landscape facilitated the gathering of lived experiences that served as essential creative catalysts for the development of artistic works.
The daily workshop structure was planned to balance between technical instruction, autonomous exploration, practical experimentation and collective reflection.
Day 1: Introduction to cyanotype process and its historical context; Technical demonstration of photosensitive solutions and materials; Initial exploration of the village and surroundings for visual material collection; First experiments with basic cyanotype techniques.
Day 2: Deeper interaction with locals through informal conversations; Collection of objects, materials and images for participants' projects; Experimentation with various cyanotype techniques (including negatives and 3d objects); Group discussion on discoveries and emerging approaches.
Day 3: Refinement of project concepts based on previous experiences; Final production of cyanotype prints.
Day 4: Further concept refinement and technique adjustment; Continued production of cyanotype prints; Creation of large format individual prints.
Day 5: Independent work; Completion of cyanotype prints.
Day 6: Exhibition planning and installation.
Day 7: Exhibition and results presentation.
This methodological framework facilitated the gradual development of students' graphic projects, enhancing both conceptual depth and technical proficiency. Pedagogical guidance was delivered through a structured system of ongoing feedback.
Each day commenced with a briefing session where students shared critical reflections on their progress and outlined specific goals for the day ahead. These morning gatherings served as

metacognitive spaces for participants to articulate their thinking processes and exchange emerging insights. Daily activities concluded with a collective debriefing, during which students presented their work and received constructive feedback from both peers and the instructor. This structured cycle of planning-action-reflection established an effective learning rhythm that fostered accelerated technical and conceptual growth.

Students each crafted unique approaches to the project, forging conceptual connections with various dimensions of the *table* within "The Spirit of Sharing" theme. Their work examined the *table's* multiple roles: as a craftwork platform, social gathering point, creative surface for producing and sharing content, and metaphor for the intersection of traditional and contemporary practices. One outstanding project transformed AMA Castelões Association materials into a visual narrative, tracing the journey "from seed to linen tablecloth," combining photography with direct printing of three-dimensional objects to illustrate local knowledge transmission cycles.

This immersive pedagogical approach demonstrated how situated learning enriches design education by creating optimal conditions for developing both technical expertise and conceptual thinking.

Fig. 1. Day 1—Opening session with the participants of the cyanotype workshop, the flax workshop and members of the community.

Fig. 2. The seven participants in the cyanotype workshop.

Fig. 3. - Fig. 7. Daily scenes from the workshop.

Fig. 8. - Fig. 14. Day 3—Afternoon presentations and project discussions.

Fig. 15. – Fig. 18. Day 7—Cyanotype workshop exhibition.

5. Discussion of Results

5.1 Technical Engagement with the Cyanotype Process

Students demonstrated high levels of engagement with cyanotype techniques, particularly responding to the process's hands-on and experimental qualities. Working with chemical solutions, mastering exposure principles, and adapting to environmental conditions—varying sunlight intensity and temperature—presented valuable learning challenges. What began as technical frustrations—uneven coating and overexposure issues—evolved into purposeful experimentation as confidence grew.

The rural setting presented distinctive technical constraints that became educational opportunities. With limited conventional facilities, students demonstrated resourcefulness by creating improvised exposure and washing stations using available materials. The locale's wealth of natural elements (local flora, soil samples, architectural features) and cultural artefacts provided exceptional raw material for creating photograms and exploring textural possibilities in their compositions.

5.2 Community Engagement and Cultural Documentation

The workshop's approach to community engagement reflects Pink's [5] sensory ethnography principles, which emphasise that understanding places and communities requires attention to the multisensory dimensions of experience. Students' immersion in village life—sharing meals, participating in evening gatherings, and experiencing the material environment through multiple senses—created what Pink describes as 'emplaced knowledge' that is fundamentally embodied and sensorial. This multisensory engagement was particularly evident in how students incorporated local materials, textures, and objects into their cyanotype works, translating sensory experiences into visual documentation.

The workshop catalysed meaningful exchanges between students and village residents, revealing a notable bidirectional knowledge transfer. While students gained insights from village life, residents developed an appreciation for this historical photographic technique.

Students consistently noted how community interactions shaped their creative processes. Rather than producing work focused solely on aesthetic or technical merit, they created pieces that honoured the spirit of exchange between themselves and community members.

The off-campus setting naturally facilitated contextual immersion. Freed from typical classroom time constraints, students could experience locations at various times of day, cultivate relationships with locals, and develop nuanced community understanding. This deep engagement yielded outcomes with greater contextual authenticity and cultural sensitivity than conventional classroom-based projects typically allow.

5.3 Teaching Design Outside the Classroom Context

The workshop methodology incorporated what Frascara et al. describe as "Methods need to be critically selected, and Methods can be adjusted in real time" [1]. Participants were constantly encouraged to reflect on the suitability of their technical approaches and adapt them as necessary in response to changing conditions and emerging discoveries.

The experience also exemplified the principle that "Design methods help hold various possible ways of knowing the world, and to embody a transformative praxis, leading not only to creating responses to situations but also to knowledge creation" [1]. Through the process of documentation and visual reinterpretation, students not only created artefacts but also contributed to new understandings of local heritage and its contemporary meanings.

6. Final Considerations

This case study demonstrates the significant pedagogical value of relocated workshops in design education, particularly those combining historical processes with community engagement. The cyanotype workshop in Múceres created a rich learning environment that enhanced technical skills while developing students' cultural awareness and social responsibility.

The results suggest that rural environments offer particularly valuable contexts for such workshops, providing access to distinctive visual content, traditional knowledge and meaningful community interactions. The temporal and material qualities of alternative photographic processes, such as cyanotype, create natural opportunities for reflection and deliberate practice, often absent in digital workflows.

This research suggests several practical implications for design education. Relocated workshops can serve as effective complements to traditional classroom settings, especially when teaching processes that require extended engagement periods. The study demonstrates that historical photographic techniques provide valuable frameworks for students to address contemporary challenges in documentation and representation. Additionally, community-centred projects create authentic learning environments where students develop not only technical proficiency but also crucial interpersonal skills through meaningful interactions. Finally, the findings indicate that rural communities offer particularly rich contexts for design education, creating mutually beneficial relationships where students gain valuable experience while community members receive useful services and creative outcomes.

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