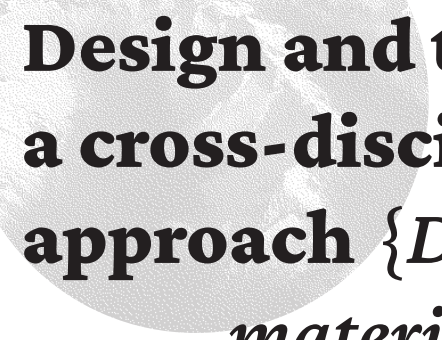




## Design and transition: a cross-disciplinary approach {Design, interfaces and digital perspectives} \* **05.22.25** **1:45 pm – 6:00 pm**



## Design and transition: a cross-disciplinary approach {Design, materials and entrepreneurial perspectives} \* **05.23.25** **8:45 am – 1:00 pm**

### *Design, interfaces and digital perspectives*

**May 22 • 1:45 pm – 6:00 pm • L206**

**Moderator ♦ Anne Béchard-Léauté ♦** Associate Professor in Art and Design History, ECLLA, ALLHiS, UJM

**1:45 pm ♦ Acknowledgements and Presentation of Panel Discussion**  
**Gwenaëlle Bertrand ♦** Associate Professor in Design, ECLLA, UJM

**2:00 pm ♦ Jenny Faucheu ♦** Professor in Materials and Design, LGF, Mines Saint-Étienne  
**Material selection and transition(s)**

The material selection method developed by Mike Ashby in the 1990s is increasingly being challenged by real-world case studies that test its limits. This seminar will be based on a selection of scientific articles that illustrate the influence of ‘transitions’ on material selection in the product design process. Today’s transitions mean that more and more factors need to be considered, making decisions more complex. The “environmental transition” is changing the organisation of material production chains from a linear model to circular models that are more sensitive to the socio-economic context and traceability. The “digital transition”, linked to the development of generative AI, transforms the selection of existing materials into the exploration of materials that do not yet exist. These transitions, while not mutually exclusive, are leading to a huge increase in the number of materials that designers can select for their products. Should they choose the best performing material or just the right one? And isn’t it ultimately up to the user to choose the product (and therefore the material)?

**2:30 pm ♦ Laurent Pottier ♦** Professor of Musicology, ECLLA, UJM  
**Design and ergonomic issues in electronic and digital lutheries**

The birth of electronic musical instruments dates back to the 1920s and, until the 1960s, a wide variety of these devices were built to be used in musical creations with varying degrees of success. Some, such as the theremin, survived the following decades due to a very original design and very particular ergonomics. In the 60s and 70s, analog synthesizers played a major role in underground musical creation as far as for pop-rock music, bringing new sounds and new playing modes. The next two decades were the era of digital instruments, which could be connected to a computer, before the computer itself became the instrument connected to a whole set of sensors, allowing musicians to interact with the sound. We will present some devices that have made history over these four generations of instruments, emphasizing their design, ergonomics and expressive possibilities. The construction of new electronic and digital musical instruments is one of the activities at the heart of the teaching provided in the Contemporary Creation and New Technologies master’s degree, specializing in Computer Music Designers.

**3:00 pm ♦ Matteo Olivo ♦** Researcher and Artist, ECLLA, UJM  
**Design and evaluation of Accessible Digital Musical Instruments for children with neurodevelopmental disorders**

Accessible Digital Musical Instruments (ADMIs) are “accessible musical control interfaces used in electronic music, inclusive music practice and music therapy settings” (Frid E., 2020). The presentation will focus on the design of ADMIs for children with neurodevelopmental disorders, developed by Matteo Olivo as part of his PhD research. These are web applications designed for a training programme based on collective musical composition, aimed to develop the life skills (Lamboy B. et al., 2022) of the participants. The interfaces of these applications have been adapted to the users’ cognitive and motor skills, through a participative and iterative design process in which several individuals with disabilities, and education professionals, have been involved. The various stages of this process, and the adaptations made to the interfaces, will be analysed. The concluding section will present findings from a qualitative assessment of application accessibility and usability, carried out in a middle school in 2023.

**3:30 pm ♦ David-Olivier Lartigaud ♦** Lecturer-Researcher in Visual Art, Random(Lab), Esadse and Ensba Lyon

**Making a Virtual World with AI: C’est toi & moi, 2 base project case study**  
As part of this panel discussion, David-Olivier Lartigaud will present the project he developed with Damien Baïs, his colleague from Random(Lab)-ESADSE. *C’est toi & moi, 2 base* is an interactive videogame installation in which the 3D characters and assets have been generated using artificial intelligence (AI) specially trained by the authors with their own dataset. Inspired by walking simulators, the two players travel through an unfamiliar environment to find themselves.

**4:00 pm ♦** Coffee (L205)

**4:30 pm ♦ Rémi Emonet ♦** Associate Professor, Hubert Curien, UJM  
**Creativity in Generative AI**

As part of this panel discussion, Rémi Emonet will discuss generative Artificial Intelligence models (GenAI). Starting with the principles behind recent GenAI, we will explore a set of inter-related questions. Memorization and generalization: are these models just “stochastic parrots”, recopying their training data? How could they go beyond? Creativity: can these models express creativity? or assist the creative process? Self-consuming: can we envision what happens when GenAI models get trained from generated data?

**5:00 pm ♦ Jérémie Nuel ♦** Lecturer-Designer & Researcher, Random(Lab), Esadse  
**Our collaborative tools**

*ourcollaborative.tools* is an online platform summarizing the research of Random(Lab) on collaborative practices in art and design using digital tools. This publication features a curation of artistic projects, thought-provoking articles, a glossary, and a bibliography. When we mention tools for creative collaboration, we think first about the communication and project management tools – or to the few collaborative creation tools – used by artists and designers and exponentially diffused since the Covid 19 pandemic. We’ve decided to focus on specific projects – created by artists and designers – rather than generic solutions. We believe that the tools crafted by artists and designers – from creative tools (preferably free) to tool-works, along with the drafting of new licenses or participation guidelines – constitute a collective work. The platform is intended for use by designers and artists, whether they are students or professionals, who are interested in topics such as collaboration, cooperation, contribution, participation, the creative process, free software (FOSS), computer development, and visual arts.

**5:30 pm ♦ Mouna Mouncif-Moungache ♦** Associate Professor in Public Law, CERCRID, UJM ♦ **Sergio Branco ♦** Professor, Director Instituto de Tecnologia & Sociedade do Rio de Janeiro, Brésil

**The Digital Environment and the Transformation of Designer Protection: A Comparative Approach between Europe and Brazil**

From a legal standpoint, design creations are protected by design rights and copyright. Technological advancements are reshaping how these creations are conceived and materialized in the digital space. Accordingly, the new regulation on designs, set to be adopted in the coming weeks, incorporates this dimension. It was, indeed, urgent to broaden the definition of “product” as outlined in the “Design Package,” now referred to as “design,” to align with new uses emerging in the virtual environment. Today, marketed products are no longer physical but digital (with computer programs still being excluded). This study will assess whether a similar evolution is taking place in Brazil. These technological changes also impact the legal system’s ability – or inability – to adequately protect design creations and designers. The use of designs in the metaverse, the application of AI-generated creations, and the capacity of generative AI systems to produce original works raise critical questions about the nature of creation itself and the ability to safeguard “true” creators.



Design, materials and entrepreneurial perspectives

May 23 • 8:45 am – 1:00 pm • L206

Moderator • Johan Lathuillière • Foreign language Lecturer, UFR des Langues, Université Lumière Lyon 2 ; Freelance Translator and Interpreter

8:45 am • Coffee reception (L205)

9:00 am • **Acknowledgements and presentation of panel discussion**  
Anne Damon-Guillot • Professor of Musicology, ECLLA, co-head Institut ARTS, UJM • Gwenaëlle Bertrand • Associate Professor in Design, ECLLA, UJM

9:10 am • Cléa Di Fabio • Project engineer on AD-Rec, Cité du design, Esadse  
• Rodolphe Dogniaux • Lecturer-Designer & Researcher, Labo d’Objet, Esadse  
• Marie-Aurore Stiker-Métral • Lecturer-Designer & Researcher, Labo d’Objet, Esadse  
**An aesthetic motivation and theoretical legitimacy for object design**  
Design doesn’t emancipate itself from the conditions of object production, which are inherently linked to ecological costs (the saturation of the world, the consumption of fossil resources, plastic pollution, and «forever chemicals») and ethical shortcomings (working conditions, the manipulation of desire). In this context, how can we recover an aesthetic motivation and theoretical legitimacy for object design – particularly when addressing design students in schools? The research conducted by the Labo d’Objet breaks away from the usual descriptors of objects (form, function, material, techniques, use), which tend to confine design within a threefold rationality – of use, of restraint, and of materialization/dematerialization – without leading to an aesthetic capable of renewing material culture.

9:50 am • Marie Schill • Professor of Management, COACTIS, UJM  
**Acceptability of edible tableware**  
“Finish your plate!” A command we often heard in childhood, yet the issue of waste – whether food waste or pollution – remains as relevant as ever. But what if we could eat our plates? The production of plastic waste continues to rise, and its dispersion, particularly in marine environments, impacts biodiversity and, ultimately, human health. The ban on single-use plastic tableware challenges industry players to develop sustainable alternatives. Edible tableware, marketed for several years now, has emerged as an innovative response to pollution and waste caused by plastic cutlery, plates, cups, and straws. Made from raw materials that allow it to be consumed after use, edible tableware positions itself as an alternative to disposable plastic dishes. However, are consumers ready to accept and adopt edible tableware into their daily routines? How significant is design in fostering this acceptance?

10:20 am • Pauline Kuntz • PhD student, ECLLA, COACTIS, UJM  
**Design in Dialogue with Arts and Crafts - A Transdisciplinary Approach through Social Practice Theories**  
This conference explores design through various approaches: Arts and Crafts, management sciences, and social practice theories. Design is examined as a scientific discipline, a strategic lever, and an integrative practice within the Arts and Crafts sector. These transdisciplinary, managerial, and theoretical perspectives on design provide a deeper understanding of craftsmanship practices embedded in the context of sustainable transition.

10:50 am • Coffee (L205)

11:20 am • Marc Fréchet • Professor of Management, COACTIS, UJM  
**Litigating Patents: An Exploratory Study of French Court Decisions**  
Patents play a crucial role in the innovation process by strengthening the appropriability of new products and processes. However, empirical evidence suggests that firms are sometimes reluctant to rely on patents. One major concern is their perceived lack of effectiveness in actual litigation. Small firms, in particular, often view patents as too costly and lack the resources to enforce their rights in case of disputes. While this issue is widely acknowledged in the intellectual property literature, it has received little empirical investigation. Over the past months, we have conducted a research project to address this gap. Using a database of court decisions from French jurisdictions, we examine the key characteristics of patent-related legal disputes. Special attention is given to the resilience of patents and the outcomes of litigation proceedings.

11:50 am • Corinne Autant-Bernard • Professor of Economics, GATE, UJM  
• Manyane Kpatoumbi Kankpe • PhD student, GATE, UJM  
**Economic geography of design and innovation**  
Design is increasingly recognized as a strategic competitive lever for companies, shaping their service offerings, internal organization, and capacity for innovation (Ainamo et al., 2016; Canto Primo et al., 2020). Various quantitative studies (Cereda et al., 2005; Filippetti, 2011; Roper et al., 2016; Montresor & Vezzani, 2020) confirm the positive impact of design on innovation. The literature also highlights the role of geographical concentration of creative actors in fostering innovation (Porter, 1990; Florida, 2002), emphasizing the importance of physical proximity and interaction networks in generating new ideas. However, there is a lack of work documenting the relationship between the geography of innovation and the geography of design. To address this gap, this study examines their spatial interconnections. Using French databases, we analyze the distribution and geographical concentration of design activities at the regional (NUTS3) level and compare them with technological innovation measured through patent counts and R&D activities measured by human resources in R&D. Pairwise scatterplots of design intensity, patent intensity, R&D intensity, population, and GDP per capita reveal positive correlations among all these variables, suggesting a general association. However, the dispersion of data points indicates significant variability in their relationships, pointing to complex underlying synergies. The presentation also provides heterogeneity analysis for different types of design activities (independent designers, agency employees and other firm employees) shedding light on the regional specialisation in one of the three design activities.

12:30 am • Éva Libran-Perez • Project engineer on MOSAIC, Designer  
**The MOSAIC Challenge: Striving to Create a Seamless and Specific R&D Approach in the Vocational Training Sector for Arts and Crafts**  
The primary goal of MOSAIC is to enhance the quality of vocational training in arts and crafts to meet the challenges posed by digital, environmental, and socio-economic changes. This is achieved by fostering innovations through three main lenses: technical, pedagogical, and social, with an emphasis on sustainability and digitalization. To this end, MOSAIC has targeted specific artisanal sectors: traditional and rare crafts, precious metals and jewelry, furniture and woodworking, design, and industry. These sectors reflect the expertise of the various partners as well as the local and national specificities of the participating countries. After 2 and a half years into the MOSAIC project, 5 reports published and a study visit at Inovem, an R&D center in the school of cabinetry of Victoriaville (Canada), we are now confident to say that in order to answer the issues faced by vocational schools and later on craftspeople we will need to globally implement R&D in the curriculums. But how can we talk about research and development in a context where VET centers aren’t provided with researchers? What is exactly R&D and can design methodologies be the answer?

Design and transition: a cross-disciplinary approach

On the occasion of T4EU WEEK *Design in all its forms*, organised by the University Jean Monnet (UJM) and in resonance with the Saint-Étienne International Design Biennial 2025, this scientific event highlights the diversity of design approaches and collaborations developed within UJM and the École supérieure d’art et design de Saint-Étienne (Esadse). This cross-disciplinary initiative brings together several fields of research – the arts, engineering sciences, management sciences, law, information technology and computing – to examine design in its many dimensions. The aim is to explore its digital, material, and industrial evolution, the evolving challenges of intellectual property in the face of advances in computing, as well as its role as a driver of innovation for businesses. Furthermore, the discussions will also give the floor to young researchers and creators, who will question the roles of the designer, the craftsman and the artist through sensitive, inclusive approaches, grounded in contemporary issues of social, environmental, and economic transitions.

Location: Université Jean Monnet, Saint-Étienne  
Les Forges, 11 rue Docteur Annino - 42000 Saint-Étienne  
L206 (Conference) & L205 (Coffee Reception)

Scientific organisation: Gwenaëlle Bertrand, ECLLA, UJM  
Coordination: Institut ARTS, T4EU Alliance, UJM  
Contact: gwenaelle.bertrand@univ-st-etienne.fr

Graphic design: Gwenaëlle Bertrand  
Font: *Crimson Pro*, designed by Jacques Le Bailly (2019)

Posters display: What can we remember about AI?

In March 2025, students from the Bachelor’s degree in Visual Arts at the Faculty of Arts, Letters, and Languages explored risography alongside Gaëlle Joly, co-founder of Gran Lux in Saint-Étienne. The visual production aimed to offer a unique exploration of the issues surrounding artificial intelligence, as a continuation of their participation in the research event *Ce que l’IA fait à la création*, co-organized with Esadse on January 22 and 28, 2025. Presented in the form of posters, these works constitute a graphic translation of the theoretical content discussed during presentations and exchanges, combining visual note-taking with personal interpretation through synthetic images that reflect the singular perspective of each student.

Students • Melin Avan, Manon Barroso, Loic Brottes, Trystan Celestine, Lucie Chambat, Julie Chapon, Élise Chaussende, Alban Fogeron, Penelope Giraud Missier, Timur-Kaan Kapuci, Nastasia Kotenko, Eva Lejarza, Ella Mougeot, Alexandra Pause, Chloé Pontlevoy-Cochet, Eva Soriano, Simon Teissier, Amandine Thibaudon, Ran Wang, Yilin Wang

Workshop supervisors • Gwenaëlle Bertrand, Gaëlle Joly

Location: Université Jean Monnet, Saint-Étienne  
Les Forges, 11 rue Docteur Annino - 42000 Saint-Étienne  
Reception Hall (Exposition) - From 19 May to 23 May 2025