



Utopian architecture in fictional film universes: An interdisciplinary workshop experience

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Abstract

This study presents an interdisciplinary workshop experience within spatial and environmental design education, aimed at developing critical thinking and utopian design skills. The workshop included undergraduate students from architecture and interior architecture, as well as associate degree students in interior design. It focused on the process of identifying social, cultural, and spatial problems within science fiction and fantasy film universes and designing alternative utopian solutions. Through this approach, the study aimed to introduce a new perspective to design practice via fictional design. During the workshop, the participants' outputs—including their film selections, problem definitions, and design proposals—were systematically observed. The findings indicate that students produced critical and creative spatial interventions by reinterpreting the sociological and spatial conflicts present in science fiction and fantasy universes within the context of the architectural discipline. The developed designs included public structures to support interaction among diverse groups, multi-functional assembly buildings for alternative governance scenarios, transitional spaces representing cultural passage, and interstitial spaces aimed at transforming social inequalities. While developing these spatial proposals, students focused not only on the relationship between form and function

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but also on layers of symbolic representation. In this context, it is concluded that utopia workshops hold a transformative potential for fostering creative thinking in design-based education.

Keywords: utopia, fictional design, social space, science fiction cinema

1. INTRODUCTION

This article examines the spatial manipulation of a fictional story for problem-solving purposes by applying it to architecture and spatial design students. Fostering creative and critical thinking is crucial in the process of identifying design problems (Park and Kim, 2021). Critical design thinking is a powerful method that can encourage the emergence of various design ideas by facilitating the understanding of a poorly defined design problem through an iterative process. The importance of nurturing students' creative thinking is frequently highlighted in the relevant literature due to creativity being an integral part of architectural design (Choi and Kim, 2017; Dorst, 2010; Teal, 2010). Considering this, the study offers an alternative design method with a critical approach to existing design studios. In this context, the article focuses on the relationship between storytelling and space.

Recent research in architectural education emphasizes that design studios must restructure their teaching and learning methods to enhance students' creativity (Salama, O'Reilly and Noschis, 2002). This emphasis aligns with the view that creativity is a skill that can be developed through education rather than being an innate characteristic (Gaber, 2014). Accordingly, many researchers and educators have focused on developing new teaching and learning methods to increase students' design capacity (Schreiber, 2010; Nazidizajia et al., 2015). These methods encompass not only the development of creative thinking skills but also the use of student-centered activities that strengthen communication competencies and allow students to articulate their thoughts throughout the design process. These approaches necessitate a rethinking of the role architectural studios can play in the production of creative design solutions, which can be developed through reflective practice and experience-based learning. Educational psychologists, such as Schön (1987), argue that effective and lasting learning is only possible when students actively participate in the learning process. This perspective highlights the importance of positioning the student not as a passive recipient but as an active participant in the learning process within design education.

Generally, the techniques used in architectural design workshops and studios are divided into two stages: the theoretical background of design and the practical application of design ideas. Students in design studios are typically expected to gather information about a specific problem, analyze the collected materials, and translate them into space. However, studio and workshop activities for students predominantly prioritize a theoretical and technical approach. This study introduces an architectural design workshop to evaluate the success of creative spatial approaches in a design studio that focuses on the utopian manipulation of fictional film universes.

1.1. Creativity and Design

Creativity is defined as the ability to handle ideas in original ways and to produce outcomes that are both innovative and functional (Runco, M. A., 2008). The creative design process is a unique design approach that encourages thinking outside the box, enabling the emergence of novel ideas (Dorst, & Cross, 2001). While creativity is often assessed through the quality of the final product, it is also associated with specific cognitive processes that increase the likelihood of generating creative outputs during the design process

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(Visser, 2004). In this context, creative thinking is closely linked to the concept of restructuring, which transforms the designer's perception of a problem (Ohlsson, 1984). Guilford (1950) suggested that creativity is closely related to the ability to escape rigid thought patterns through the reframing of problems and the reinterpretation of ideas. In the design process, constructive awareness emerges as a factor that encourages reinterpretation and supports innovative perspectives (Kim, Ju, & Lee, 2015). Similarly, constructive perception allows designers to shift their focus, enabling them to comprehend phenomena in different ways, thereby nourishing creativity (Damski, & Gero, 1997). Dorst (2011) examined the essence of design thinking through the process of idea generation and defined patterns of design-based reasoning, emphasizing the importance of abduction as a fundamental form of reasoning for creative thought. Accordingly, it is crucial for students to adopt effective reasoning methods to grasp the core elements of design problems and develop a creative design process. Many researchers have emphasized the need to support diverse forms of thinking to enhance creativity in design education. Strengthening students' creativity in the early stages of architectural education is one of the primary goals of design pedagogy (Potur, & Barkul, 2006). This requires the implementation of innovative teaching methods. Developing and implementing teaching strategies that encourage student-centered thinking activities are critical for effectively supporting creativity. Design education aims not only to impart knowledge and skills but also to develop the capacity to use this knowledge in creative processes. However, because students are often trained in logical thinking focused on reaching the correct solution, they may exhibit linear thinking tendencies even with ill-defined design problems (Choi, & Kim, 2017). Incorporating innovative strategies, such as spatial explorations in problem-solving within cinematic fictional universes, to encourage creative thinking can be considered an effective method for strengthening students' creative potential.

1.2. Utopian Thinking in Fictional Universes and Storytelling

Creative and critical thinking skills can be effectively fostered through the process of story development. Storytelling represents a dynamic form of interaction that encompasses the processes of creating, sharing, interpreting, and presenting the content and meaning of a narrative (Won, 2009). This suggests that creative and critical thinking processes develop as the narrator conveys their own experiences, and creativity is actively generated when communicating and sharing with others. Creativity is inherent in storytelling, and creative thinking is continuously nurtured throughout this process. Specifically, the act of "telling" is central to this development (McDrury and Alterio, 2003). Accordingly, various academic disciplines have begun to use storytelling as a pedagogical tool to stimulate critical thinking (Kim and Bae, 2009; Adams et al., 2007; Moon, 2004). In this context, storytelling stands out as an effective, active-participation-based learning strategy that nourishes creativity in educational processes (Adams et al., 2007).

An architectural design studio based on storytelling can move beyond traditional teaching methods focused solely on knowledge transmission, strengthening students' creative thinking, communication, and reflective learning skills (Fowler and Rigby, 1994; Moon, 2004). In this context, students can develop an original idea based on their own experiences, structure this idea through a story, and learn to transform the narrative into a three-dimensional spatial representation. Such a method enhances the quality of learning activities and provides a foundation for developing new creative learning strategies, particularly in innovative educational fields such as architectural education (Won, 2009). The creative learning approach based on storytelling in architectural education utilizes the fundamental characteristics of "story" and "telling" as catalysts for creative thinking (Hunter, 1991). In this regard, spatial storytelling enhances architecture's potential to create different forms of experience and produces spatial content tied to the

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narrative structure (Lu, 2016). Practice-based learning activities involve the transformation of the narrative into a three-dimensional representation, a process that can be considered a skill contributing to students' comprehension of the design process (Nazidizajia et al., 2015).

Consequently, storytelling in architectural design studios can create a participatory, interactive, and experiential learning environment through processes of communication and reflection. These learning activities have the potential to enhance students' creativity through a holistic understanding of the narrative's transformation into architectural design (Won, 2009). For instance: the scope of students' thinking can be expanded through "Story Activity"; modes of expression can be diversified by transforming the story into a three-dimensional representation; and communication and presentation skills can be developed as students share their own work. This methodological approach allows students to convert their thoughts, emotions, and experiences into a spatial narrative via physical media (Won, 2009).

Özakin (2001), describes science fiction as critical future scenarios rooted in the present day. Similarly, Fear (2000), suggests it is a way of controlled viewing and imagining the future. In this context, it is plausible to state that films featuring science fiction and fantasy-themed fictional universes already possess spatial patterns created within a storytelling framework. A critical perspective on the present has been a focus not only on cinema but also on utopian writing. A critical perspective towards sociological, economic, and spatial re-creation is central to the idea of utopia (Babaoğlu, 2004). Films of the science fiction and fantasy genres are unique design domains where the film creator shapes spatial arrangement, the fictional world, and its internal dynamics through storytelling. In this respect, the film is not merely a narrative vehicle but also a design practice where space and fiction are consciously constructed. With a critical and utopian perspective, these fictional universes can be re-read, and new layers of meaning can be created by manipulating the existing narrative. Thus, the spatial fictions present in the film can be redesigned through an alternative storytelling approach. In doing so, the designer is transformed into a subject who not only observes the story but also participates in the design of that universe. The utopian critical perspective re-examines cinema, which is a depiction of storytelling, and draws it into a reflective design process through a secondary process of storytelling.

1.3. Purpose of the study

The primary aim of the study is to understand how architecture and design students address complex problems of a socio-cultural and physical-environmental nature beyond the constraints of real-world boundaries. In line with this objective, the design workshop—the methodology of which is detailed in the subsequent section—sought answers to three research questions: First, how do the students approach the problem? Second, how do they generate solutions? Third, what spatial approaches are produced? The workshop introduces an alternative and novel perspective to the design processes of form, function, symbolic, and cultural space.

2. METHOD AND MATERIALS

Any research requiring ethical approval, including interventional trials involving live things, should include the relevant ethical approval certificates or numbers This study was conducted during the Spring

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semester of the 2024–2025 academic year, fundamentally based on an applied and conceptual methodology structured in a workshop format. The workshop was executed with a total of 20 participants. The participant profile was diversified to include students from various design disciplines: 8 participants from the Architecture program, 8 from the Interior Architecture program, and 4 from the Interior Design program. This distribution created an interdisciplinary environment, allowing for the comparison of spatial thinking practices across different scales and perspectives.

The Implementation Process and its stages were carried out in three main phases, incorporating both online and face-to-face sessions. The first phase was conducted online, where participants were provided with general information regarding the workshop's aim, scope, and method. A theoretical online presentation on the concept of utopia was delivered in this session to establish the conceptual framework. Participants explored fictional universes through science fiction and fantasy film themes, identifying socio-cultural and physical-environmental problems within the context of their chosen films. These problems were discussed under the question, "How can they be overcome?", forming the initial basis for the critical thinking process.

The second phase was a 6-hour face-to-face session. In this stage, a deep analysis of the problems defined in the first session was performed, and potential solutions were discussed. Participants created a fictional space dossier based on the proposed solution ideas, defining the functional and symbolic qualities of this space and developing their initial sketch studies. This process was supported by discussion and presentation sessions, encouraging participants to translate their intellectual productions into visual form.

The third phase was a three-hour face-to-face session, focusing on the digital visualization of the developed solution proposals. In this phase, participants were taught and practically experienced the use of AI-based visualization tools (e.g., ChatGPT and Bing Image Creator). At the end of the process, each group prepared two digital presentation boards: the first included the film and problem introduction, and the second presented the proposed solution and spatial visualization. The session concluded with a general discussion and feedback evaluation.

The analysis process of the workshop focused on the questions of how students conceptualized the identified problem, which design tools they used to develop solution proposals, and what spatial approach they adopted during this process. The workshop outputs, consisting of prototype projects and visualized proposals, were evaluated in multiple layers—including their formal qualities, functional appropriateness, and symbolic, cultural, and social dimensions—by relating them to the study's theoretical framework. This evaluation allowed the design process to be considered not merely as a formal production but also as a conceptual, social, and cultural practice of re-production.

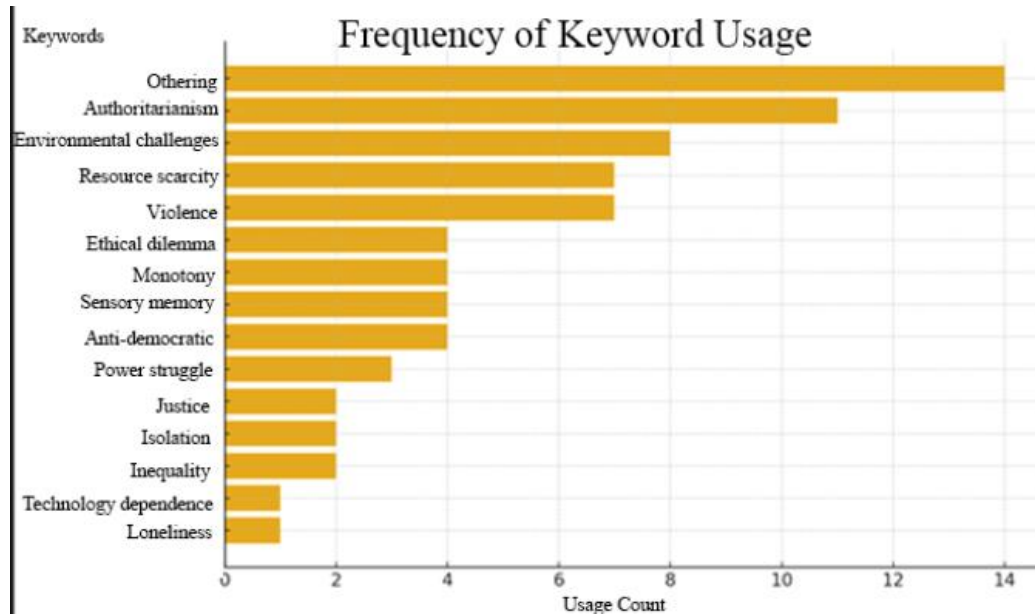
3. RESULTS

3.1. Quantitative Insight into Workshop Data

As a result of the applied workshop, students identified 15 distinct problem themes across 20 different films, as presented in Figure 1. (Workshop rules allowed for the selection of more than one problem theme per film.) The three most frequently recurring problem themes were marginalization, authoritarianism, and environmental challenges. The least frequently recurring themes were loneliness, technology addiction, and inequality. Within the scope of the workshop, students were instructed to select only one of the problem themes identified in their chosen film and to develop a solution for it.

Figure 1

Keyword frequency distribution in student projects (n=20; total codes=74)



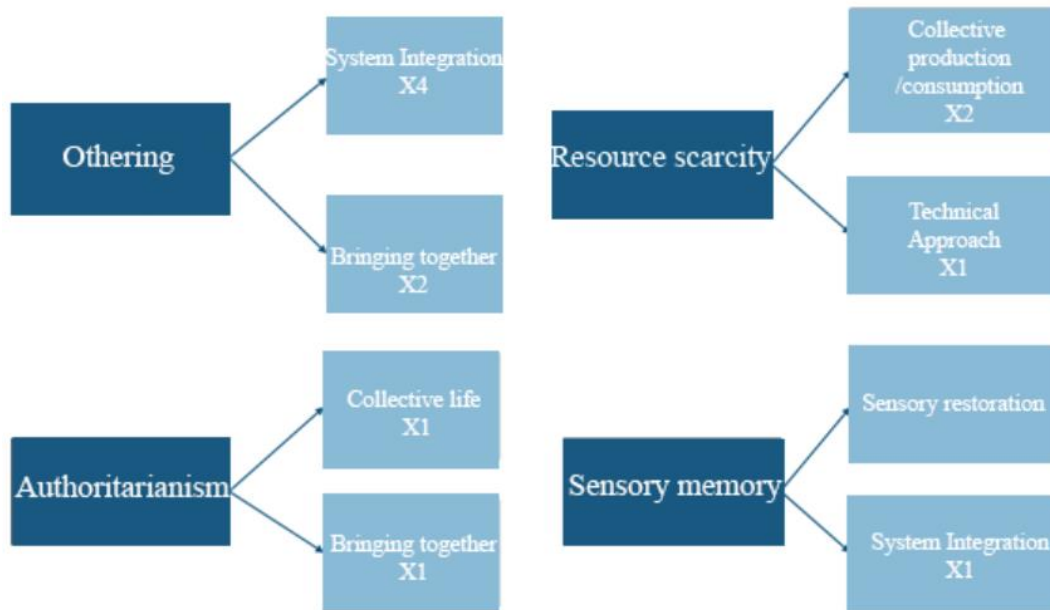
The study When determining the dominant theme for each specific project, the distribution clustered as follows: Marginalization (n=6; 30%), Sensory Memory (n=4; 20%), Resource Scarcity (n=3; 15%), and Authoritarianism (n=2; 10%). The themes of Technology Addiction, Environmental Challenges, Justice, Monotony, and Violence were each represented by n=1 (5%). This distribution indicates that a significant portion of the projects prioritized tensions related to social polarization, policies of remembrance/forgetting, and the management of scarce resources.

In parallel, in the spatial scenarios proposed for solving the problems they identified, workshop participants predominantly utilized public and semi-public spaces. Nineteen out of 20 projects used public and semi-public space as the interface for their solutions. Only 1 student approached the solution through private spaces. This suggests that 95% of the workshop participants focused on problems in areas regulating social interaction and collective life within the fictional science fiction and fantasy universes.

The frequencies of the spatial solution approaches developed for the predominantly emerging themes— Marginalization (n=6; 30%), Sensory Memory (n=4; 20%), Resource Scarcity (n=3; 15%), and Authoritarianism (n=2; 10%)—are presented in Figure 2. As shown in Table 2, participants addressing the theme of marginalization developed two orientations: integration into the system (n=4) and bringing together (n=2). The spatial fictions of participants working with the theme of authoritarianism clustered around the axes of collective living (n=1) and bringing together (n=1). Proposals for the theme of resource scarcity focused on the categories of collective production/consumption (n=2) and technical approach (n=1). Finally, participants who selected the theme of sensory memory produced spatial fictions aligned with sensory restoration (n=3) and integration into the system (n=1).

Figure 2

Problem Themes–Solution Approaches Matching and Frequencies



The following section presents exemplary projects from the workshop. Six distinct projects have been selected as examples. The selection was based on the films' recognition in popular culture and the originality of the final product.

3.2. Case Studies from the Workshop Implementation

Harry Potter

The Harry Potter film series is a popular cultural phenomenon focusing on a wizarding world separated from non-magical (Muggle) people. In the workshop, the student identified the main problem themes as marginalization, authoritarianism, and power struggle, focusing on marginalization as the core issue. The student's solution to the problem of marginalization was the design of a venue for leisure activities where people from the two segregated universes could gather. This space is described as a place for encounter, socializing, and mutual understanding for the two distinct classes whose meeting is forbidden in the Harry Potter universe. Furthermore, the building's interior and shell design bear traces of the film's spatial theme.

Silo

Silo depicts a dystopia where humanity is forced to live in a colossal silo dug deep underground, following a future where the outside world has become toxic and deadly. Leaving the underground city is forbidden. The student identified the problem themes as authoritarianism, resource scarcity, environmental challenges, and marginalization. Environmental Challenges was selected as the focal problem. To overcome this problem, an observation tower was designed, extending above ground as an extension of the subterranean city and providing an opportunity for visual contact with the environment. The tower is an enclosed public space accessible to everyone in the Silo universe.

Tomorrowland

The film is about a curious and idealistic young woman who discovers a secret, high-tech world through a mysterious pin. This world is a utopian future created by humanity's brightest minds, but it has begun to collapse over time. The young woman fights alongside a former resident of this secret world to reignite human hope and prevent a dark future. The student identified five different problem themes: marginalization, environmental challenges, sensory memory, anti-democracy, and monotony. They chose marginalization as the focal problem theme, stemming from the dichotomy between nature and technology. To overcome marginalization, they designed a plaza where science, technology, and nature converge. The plaza includes various public spaces, both open and enclosed, that incorporate elements of both nature and technology.

Invincible

The story explores the limits of heroism, the conflict between power and morality, and a teenager's struggle to find his identity. The student identified three problem themes—authoritarianism, violence, and marginalization—and focused on marginalization. To overcome the problem of marginalization, the student proposed the integration of those who are different into the system. This system integration takes place in a technological center, which is a flying enclosed public space bearing traces of the film's setting—a genetic research center.

The Hunger Games

The film tells the story of a young woman who volunteers to take her sister's place in a competition, becoming a symbol of both the struggle for survival and resistance against the system's injustice. The student identified the problem themes as inequality, violence, authoritarianism, and ethical dilemma. Authoritarianism was chosen as the focal problem. To overcome the problem of authoritarianism, the student designed public resource production and workshop spaces that promote collective production and freedom of work.

Elysium

The story is about a man suffering from a fatal illness who attempts to reach Elysium to heal himself with its advanced technology. However, this journey turns into a fight against the inequality between the two worlds, the quest for justice, and humanity's class division. The student identified the problem themes as resource scarcity, inequality, marginalization, and environmental challenges. Marginalization was selected as the focal problem. To overcome marginalization, the student aimed to prevent conflict by designing socio-cultural adaptation centers where the people of Earth, with their different lifestyles, could adapt to the satellite world's way of life before moving to live there. The designed structure is an enclosed public space enabling system integration.

The projects were visualized and transformed into presentation posters (Figure 3), utilizing storytelling techniques and elements of artificial intelligence.

Figure 3

Film-based problem analysis and spatial solution matrix







Movie name Harry Potter	Genre Fantasy		Movie name Silo 2023	Genre Science fiction	
Identified problem types			Identified problem types		
Othering Authoritarianism Power struggle			Resource scarcity Environmental challenges Othering Authoritarianism		
Type of problem focused on			Type of problem focused on		
Othering			Environmental challenges		
Solution Concept	Spatial Solution Proposal	Space Type	Solution Concept	Spatial Solution Proposal	Space Type
Bringing different life forms together	Leisure / activity space	Enclosed public space	Interaction with the natural environment above ground	Observation tower	Enclosed public space

Figure 4

Film-based problem analysis and spatial solution matrix

Movie name Invisible	Genre Fantasy		Movie name Tomorrowland	Genre Science fiction	
Identified problem types			Identified problem types		
Authoritarianism Violence Othering			Othering / Belonging Environmental challenges Sensory memory Anti-democratic practices Monotony		
Type of problem focused on			Type of problem focused on		
Othering			Othering / Belonging		
Solution Concept	Spatial Solution Proposal	Space Type	Solution Concept	Spatial Solution Proposal	Space Type
Integrating with the system	Genetics R&D Center	Enclosed public space	Bringing nature and technology together	Science Square (public plaza)	Open/closed public space
Movie name The Hunger Games	Genre Science fiction		Movie name Elysium	Genre Science fiction	
Identified problem types			Identified problem types		
Inequality Violence Authoritarianism Labeling/Stigmatisation			Resource scarcity Inequality Othering Environmental challenges		
Type of problem focused on			Type of problem focused on		
Othering			Othering		
Solution Concept	Spatial Solution Proposal	Space Type	Solution Concept	Spatial Solution Proposal	Space Type
Collective productivity and freedom to work	Resource Production Centre	Enclosed public space	Socio-cultural adaptation	Facility for acclimatisation and system integration	Enclosed public space

4. DISCUSSION and CONCLUSION

This study presented an experimental workshop process aimed at enabling architecture and interior design students to develop alternative solution approaches for socio-cultural and spatial problems, drawing from science fiction and fantasy fictional universes. The process concluded by demonstrating that students were able to reinterpret the societal and physical problems within these fictional worlds through an architectural lens, subsequently developing critical, creative, and conceptual spatial proposals based on these issues. The findings indicate that a vast majority of students preferred to formulate problem solutions through public and semi-public spaces. This highlights a prominent approach that centers on social interaction and frames space as an arena for social representation. The core of the discussion was concentrated around the themes of marginalization, sensory memory, resource scarcity, and authoritarianism. A keyword analysis (totaling 74 codes) confirmed that the discursive intensity clustered particularly around the concepts of marginalization (14) and authoritarianism (11), followed by environmental challenges (8), resource scarcity (7), and violence (7). Furthermore, the frequent attention given to themes such as "sensory restoration" and "meeting place" demonstrates that students engaged not only with physical design parameters but also with experiential and sensory dimensions. This is significant because it suggests that architectural education can be enriched beyond formal production to include cultural representation, memory, and social relations. Throughout the workshop process, students successfully reinterpreted the sociological and spatial conflicts present in science fiction and fantasy universes within the context of architecture. This process involved not only problem analysis but also the generation of critical and creative spatial interventions. In developing these spatial proposals, students considered not only the relationship between form and function but also the symbolic and representational dimensions. Within the context of the resulting designs: public spaces were identified as important design tools in a new form of storytelling. The focus of utopian narratives on gathering and encounter spaces for 'the other' aligns with academic literature on marginalization. However, "system integration" emerged as one of the most frequent solution keywords. In this regard, the use of public space as an area for domestication is particularly noteworthy, revealing the dichotomy between public space and the preservation of the status quo. In conclusion, this workshop provided a critical thinking environment to architectural pedagogy via fictional universes, enhancing students' ability to concretize abstract conceptual problems using spatial design tools. In the future, conducting such workshops in collaboration with different disciplines (e.g., cinema, sociology, or AI-based design tools) could contribute to strengthening critical and experimental approaches in architectural education.

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