

STORIES THAT SHAPE: FICTION AS A TOOL FOR ENVIRONMENTAL LITERACY IN LANDSCAPE DESIGN PEDAGOGY

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ABSTRACT

This paper argues for the use of fiction in landscape design to advance environmental literacy and enhance the field's relevancy and accessibility for students. The design disciplines have traditionally viewed fiction as rarely recognized source material, yet fictional stories and images have influenced how environments are managed and how landscapes are understood. We argue that literary genres, such as historical fiction, sci-fi, and horror, offer great potential to students in their exposure to topics core to the discipline. These sources provide knowledge relevant to landscape architecture by engaging students in complex cultural and environmental issues.

Through work produced in design studios and seminars, we share pedagogies from two universities that use storytelling to inspire worldbuilding and enhance design thinking. Students analyzed texts and films that demonstrated the effectiveness of storytelling in conveying ecological knowledge. The pedagogy discussed in this paper represents a break from traditional approaches, which rely on a more limited range of non-fictional source texts. Such limited approaches fail to capture the immersive qualities that fiction offers for conveying ecological knowledge.

We find that incorporating fiction into design curricula achieves five key Student Learning Outcomes: students (1) grow their analytical thinking capacity, (2) increase their environmental literacy, (3) engage in speculative worldbuilding, (4) more efficiently translate their ideas into spatialized design, and (5) more readily work across a range of design scales.

Including fiction and storytelling in landscape pedagogy accomplishes two unique objectives: first, it accelerates students' understanding of environmental issues through narratives and media unconventional to design curricula; and second, it makes ecological concepts accessible to students with a variety of backgrounds and competencies. These case studies support the idea that engaging students with fiction in design classrooms serves a critical role in increasing their literacy of landscapes and facilitating design exploration.

Keywords

Fiction, Environmental Literacy, Worldbuilding, Design Pedagogy

1 INTRODUCTION

"Dex looked down at the stream. Under any other circumstances, it would have seemed lovely. Water tumbled over rocks both smooth and multihued. Dappled sun caught in the currents like glitter, and the percussive melody of endless aquatic cascade seemed perfectly tuned to put a frazzled mind at ease. But Dex wasn't there to *look* at the stream. Dex was there to *take* from the stream, and that fact made them note more details. The weird brown algae that coated rocks like fur. The mildewy funk emanating from the spongy soil at the stream's edge. The slimy fish and skimming bugs and better-left-nameless leavings traveling under, the cadaver-colored leaves floating over.

'What's the matter?' Mosschap asked.

Dex pursed their lips. 'This is going to sound very stupid,' they said.

'I doubt that,' said Mosschap.

'I know where water comes from,' Dex said at last. 'I know that every drop that comes out of every tap comes from a place like this... But I've never *been* to those places. They're just... names. Concepts... I don't think about a place like *this* being something I can use. *This* doesn't look like a resource, to me. It's... it's scenery. It's a pretty picture. It's not for taking...'"

—*A Psalm for the Wild-Built*, Becky Chambers (2021)

Words can paint a landscape in the reader's mind, much the same way that drawings can conjure an imagined environment. And yet, the design disciplines rarely viewed fiction as a valuable source material. In this paper, we argue that engaging students in storytelling, narration, and speculative fiction offers them compelling new frameworks from which to test and develop their designs. Fictional stories show students that worldbuilding is immersive and accessible. Furthermore, providing students with design frameworks that are inspired by fiction gives them a unique sense of agency as designers. By designing through speculative worldbuilding, students are encouraged to question the very foundations of the world they inhabit, resulting in more thorough, critical, and immersive design approaches.

We argue that literary sources, including historical fiction, sci-fi, adventure, and horror provide students with valuable exposure to fundamental concepts in the landscape discipline. These sources provide relevant insights into ecological function, species relationships, recognition of diverse voices, and meaningful frameworks for how to treat the environment and care for it. Through fictional texts, students gain a deeper understanding and awareness of cultural and environmental issues that they can then test in their design work.

There has been a growing interest in the overlaps between landscape and storytelling in recent years (Clay, 1973; Spirn, 1988; Potteiger, 1998; Doherty, 2016; Scarfo, 2023). While these parallels are increasingly explored in landscape research, our interest in this paper is clarifying productive ways to bring storytelling into design classrooms, specifically by having students engage with fictional narratives as a component of the design process. In the current context of design education, we find that engaging students with storytelling is valuable for two key reasons. First, in an increasingly globalized world where pressing challenges like climate change can often feel too abstract or intangible to engage with, fictional narratives allow students to develop personal relationships with their environmental concerns that enhance their environmental literacy. Through reading of situated stories with characters who interact meaningfully with the environment, students gain inspiration to not only analyze environmental conditions, but also to design with a sense of curiosity and reciprocity in mind. Second, as the discipline seeks to connect with a broader spectrum of the population, storytelling helps to expand the appeal of landscape architecture and its competencies to non-experts, including prospective landscape architecture students, by drawing in a diverse range of voices and perspectives that connect to wider audiences with varied interests and concerns. We present evidence from design coursework that supports the use of fiction in landscape design pedagogy to argue that storytelling can effectively communicate environmental literacies useful to landscape design. Furthermore, we find that fiction, as a design tool, can increase landscape design's relevance and accessibility for students and broader publics.

2 RESEARCH OBJECTIVES

The objective of this paper is to comparatively examine the use of fiction in two design curricula from two different institutions, the first at Rhode Island School of Design's (RISD) MLA program and the second at Rensselaer Polytechnic Institute's (RPI) undergraduate BArch program. The research objectives of these classes are:

1. To deploy fiction as a tool for introducing students to landscape concepts and ecological ideas to improve their environmental literacy.
2. To explore how using fiction helps students translate their ideas into drawing and thinking about design in new and imaginative ways.
3. To identify new teaching methods that utilize fiction to help engage first-time landscape students to design at the landscape scale and deploy otherwise complex ecological topics.

We use curricula from these design institutions as case studies for the use of fiction in design education. The courses we have examined are Topics in Representation, a graduate-level seminar offered by RISD's Department of Landscape Architecture; and the Final Project Research Seminar and Final Project Design Studio, a two-part undergraduate thesis sequence offered at Rensselaer Architecture. Both courses use fiction as a mode of productive critique that allows students to explore new approaches to engaging the landscape by challenging normative design paradigms.

Across these two curricula, our core pedagogical agenda includes the following principles. To begin, we engage students by having them read from fictional sources. This allows us to incorporate a more diverse range of source texts from which students can derive a design direction and a research investigation. The fictional sources we selected include novels, short stories, poetry, and film spanning multiple genres, but always describe a plot or environment invented by the author rather than ones describing true events. In some cases, the plot or setting may be modeled on an actual event or place, but other elements of the narrative are imagined by the author. Students are asked to critically engage with these fictional texts by evaluating them through textual analysis, which we often find directly translates into an ability to critically read and analyze the details in environmental systems. As students draw inspiration from their source texts, they are encouraged to note how narrative arcs unfold over time, as do landscapes. As such, students are encouraged to draw parallels between the temporal nature of fictional storytelling and the unfolding of landscape systems and relations to environmental change. This work is rooted in awareness of the environment as a dynamic entity, with students often representing the landscape as an autonomous entity rather than as a backdrop or a thing to be overcome (Holmes, 2020). Finally, students are asked to undergo a process of worldbuilding to generate their design projects. To do this, students draw inspiration from their fictional sources, while embellishing, elaborating upon, or translating their findings into relevant design responses. In some ways, this process parallels the pedagogical work of Daniel K. Brown, who carefully incorporates storytelling, careful use of descriptive language, and fictional sources as inspiration for architecture studios (2021). However, the pedagogical approaches at RISD and RPI often focus more so on the temporal and environmental literacy aspects of fiction, rather than only focusing on architectural formal outputs. Through this approach, the pedagogies aim to support diverse modes of analysis, reference material, systems thinking, as well as translation through design and representation that use fiction as both a source material and generative design tool.

With this pedagogical approach in mind, this paper assesses the research objectives through the following outline. First, in "Methods + Demonstration of Pedagogy," we describe our pedagogical approaches in more detail, including overviews of each course's structure and examples of student work. In the following "Results" section, we compare and contrast the ways that fiction-based worldbuilding led to unique findings in the two curricula. This assessment culminates in the form of a table of "Student Learning Outcomes" derived from our comparative analysis, where we consider both the strengths and challenges of using fiction in our courses. This was determined by evaluating how well student projects reflect the desired teaching goals and how fiction helped or hindered in achieving those aims. Finally, the "Discussion" considers how this work is situated within the broader current context of design pedagogy and practice. Ultimately, the goal of this paper is to offer our lessons learned from comparing these

courses for future teaching applications and to share our findings upon using fiction as a tool for improving students' environmental literacy.

3 METHODS + DEMONSTRATION OF PEDAGOGY

3.1 Shared Pedagogy and Scope

The design courses we discuss here span two distinct schools and include seminars and a studio class. Despite these differences, the classes share a similar approach to using fiction as a tool to engage with students with the principles of landscape architecture. Three core principles anchor each course.

First, fiction is introduced as a source and reference for using worldbuilding as an assessment tool and design strategy. Whereas a typical seminar or studio might rely heavily, or exclusively, on peer-reviewed scholarship and canonical landscape texts (i.e., texts typically by Western landscape architects or Western scholars in associated fields), in our courses students were asked to engage with fictional sources to establish the parameters for their design direction and representational strategy that they would develop over the course of the semester. Rather than be required to cite a typical piece of scholarship as the source for their design project, representational or research investigation, students could use a work of fiction as the primary source that guided their exploration. For instance, one student referenced *The Fall of the House of Usher* as a key text from which their design strategy evolved (which is discussed in more detail in section 3.2.2).

To this end, students were free to engage with an expansive collection of texts and authors that are not typically centered in the design curriculum (Table 1). As mentioned, we find that most often, the landscape architecture and broader design curricula tend to focus heavily on design theory, non-fictional historical accounts, or contemporary design criticism as source material for design students. This leaves more speculative work and fiction out of the classroom. By centering fictional texts in our pedagogy, namely environmental fiction, our courses broaden the spectrum of design inspiration and help students access otherwise rarified knowledge and perspectives about the environment, ecological processes, and human relations to nature. Furthermore, students were asked to reflect upon how fictional narratives, storytelling, and visual media shape their worldview and contribute to their expectations about the environment. Reflexively, we asked students to consider how fictional representations carry broader consequences for audiences beyond those in academia and the discipline. With this understanding, we ask how knowledge about the influence of fiction influences the way we consciously approach and present design proposals (Doherty, 2016).

In addition to broadening the scope of source material in terms of gathering from a variety of epistemological viewpoints, the sources we pulled included many authors from non-Western, feminist, Black, and Indigenous authors, centering voices that have historically been underrepresented in design curricula. These texts offered our students necessary perspectives that run counter to conventional Western relational models that have led to very particular and limited ways of knowing and learning about the environment. Alternative source materials and authors provide students with relevant and meaningful perspectives and methods for engaging with the landscape that are not available in other forms of literature or from other references.

Second, students demonstrated their level of inquiry into fictional worlds by developing representations from descriptions of the imagined world. In this sense, design became an act of translation—using an analysis and interpretation of descriptive writing into detailed drawing and modeling. Students were tasked with making the world described in the text visually legible through the tools and techniques of design. In addition, students were asked to expand upon the fictional world outlined in the texts, in some cases imagining new scales of landscape not explicitly described in the writing, or in other cases to use gaps in the fictional landscape as inspiration to translate those unexplained aspects of the world into a new design problem. While these strategies may appear to run in parallel to speculative design thinking, the goal in both courses was always to make the environment more tangible and legible as a real and complex living entity. Rather than augment the speculation, students' design translation from the fictional stories asked that they grapple with environmental detail in a precise, grounded, and contextual way, bringing tangible design strategy into focus by the immersive points-of-view and descriptions of environments offered in the texts.

Together, these pedagogical approaches expanded the methods and tools we used to assist students in imagining comprehensive landscapes in their designs. These approaches helped us introduce students to fresh perspectives for thinking about environmental conditions, which foregrounded immersive ways of knowing, a method not commonly found in academic or scientific reports and white papers. In this way, the methods shared here used fiction as both a space to develop critical thinking and as a source for design inspiration and guidance.

Table 1. Fiction Reading Lists.

University	Selection Criteria	Selected Text	Author	Genre
RPI	Environment interaction, interspecies relations, living systems interpretation Interspecies relations, timescale, environment interaction and interpretation Nonhuman point-of-view, environmental immersion, extended timelines	Dawn, Xenogenesis, Book 1	Octavia E. Butler	Sci-fi; Post-apocalypse fiction
		Psalm for the Wild-Built	Becky Chambers	Sci-fi; Environmental fiction
		Thornhedge	T. Kingfisher	Fantasy; Retelling
RISD	Students each selected their text for the semester. Texts required to be fictional, with landscape serving as a critical component of the plot.	Invisible City	Tialo Calvino	Fiction; Prose poems
		All the Light We Cannot See	Anthony Doerr	Historical fiction
		The Virgin Suicides	Jeffrey Eugenides	Coming-of-age fiction
		Swordbird	Nancy Yi Fan	Children's fantasy
		Herland	Charlotte Perkins Gilman	Sci-fi; Ecofeminism
		Metro2033	Dmitry Glukhovsky	Post-apocalypse fiction
		The Magician's Nephew	C.S. Lewis	Children's fantasy
		"Every Time I Return to the Ocean"	Ren Liu	Poem
		The Man with the Compound Eyes	Wu Ming-yi	Magical realism
		1984	George Orwell	Sci-fi
Haroun and the Sea Oval	Salman Rushdie	Magical realism		
	Elvia Wilk	Post-apocalypse fiction		

3.2 Course Structure and Student Work

3.2.1 Rhode Island School of Design: Topics in Representation

Topics in Representation was a seminar offered by RISD's department of landscape architecture in the fall semester of 2022. Enrollment in the fall 2022 seminar included 12 students: 3 first-year MLA students and 9 students from other art- and design-based undergraduate and graduate departments at RISD. As such, all students were either introduced to landscape architecture through this class or were newly enrolled in the landscape architecture program and were being introduced to landscape concurrently through their other required classes.

To begin the semester, each student selected one piece of fiction writing, encompassing novels, short stories, or poetry, to study over the course of the seminar. Next, students were guided through a series of representation assignments focused on visualizing the landscapes and environments from their novel. For the first project, students each wrote a short summary of their selected text and drew perspectival sketches from key scenes of the story. This was the first step in imagining the fictional world and translating it into their own representation. Next, students created a "literary map" that locates and grounds the major sites and environmental features in their text's fictional world. This map was paired with two perspectival drawings. Through this assignment, students were tasked with mapping at a territorial

scale, while also drawing significant landscape sites within the broader fictional world. For the third assignment, students translated one moment of their fictional landscape into a serial section model, bringing the world into a three-dimensional depiction, while also introducing many students to orthographic drawing for the first time. Finally, each student developed a short animation that paired with their serial section model from Project 03. This animation provided a temporal overlay, encouraging students to consider how time plays a role in the development of narrative as well as introducing landscapes as a medium in flux, responding to various environmental conditions.

Across these projects, students were introduced to key drawing typologies common in the landscape architecture discipline and were asked to draw parallels between the mediums of landscape architecture and fictional writing. Additionally, students were engaging with design at a range of scales, from the vignette perspective of a singular viewpoint to the territorial scale of a map (Figure 1). By using a fictional narrative as the starting point for these drawings, models, and animations, students were encouraged to build their world from the ground up, deciding what parameters to draw on from the text and where they could add their own design intent to create detailed and nuanced landscape spaces. In this way, students became increasingly attuned to the relationships between climate, terrain, plant life, and human interventions, with their drawings revealing the ways that each student reads the fictional environment.



Figure 1. Perspective (left) and Literary Map (right) of Zenobia, a city described in Italo Calvino's *Invisible Cities*. Drawings by student.

One student project that exemplifies the pedagogy at hand was exploration of landscapes from *The Man with the Compound Eyes*, written by Wu Ming-Yi (2022). The novel engages with several environmental conditions that shine a light on human impacts on the planet and climate change, which became the focus of the student's studies. First, the student began by drawing perspectival grayscale sketches of key sites within the novel occupied by the main characters, including a fictional island village off the coast of Taiwan and a floating island of garbage in the Pacific Ocean. While the student could draw on geographical references for the coastal context of Taiwan, the island of Wayo Wayo and the floating island of trash are both fictional, requiring greater imagination and design through plan and section. Initially, this trash island became the primary focus of the student's studies: both its topography and orientation in the ocean, and its trajectory moving through the Pacific Ocean (Figure 2). Here, the student explored the literary landscapes of her source text at multiple scales, working across elevation drawing and regional mapping. The elevation of the garbage island focuses on the trash heap's relationship with the water, imagined akin to an iceberg with most of its volume concealed below the water. Its terrain mimics the mountainous topography of Taiwan, the novel's second location. The map, in turn, explores how the island travels across the ocean and eventually crashes into the coast of Taiwan carried on the waves of a tsunami. It

includes grounded geographies as well as more ephemeral entities like the “sea gate,” a critical point through which the trash island travels.



Figure 2. Elevation (left) and Literary Map (right) of landscapes from *The Man with the Compound Eyes* by Wu Ming-Yi. Drawings by Lena Rentel.

For the second half of the semester, [student name] developed a sectional model of Wayo Wayo's coastline and a video showing shifting water levels that was projected onto the sectional model. These studies focused on the storm surge that buffeted the island in the novel and explored the atmospheric and climatic conditions at the heart of Ming-Yi's text. All students were asked to engage in the sectional model in order to develop measured translations of their landscapes into three-dimensional form. Additionally, the video element required students to engage with the temporal aspects of their landscape. The video, in particular, encourages drawing connections between the novel as a medium that unfolds over time and landscape systems, which similarly evolve across micro- and macro timescales. Throughout these exercises, the novel served as a launching point for their representational work, but the work of translating text to drawing, model, and video required students to engage in inventive and imaginative design of landscape systems across scales.

3.2.2 Rensselaer School of Architecture: Final Project Research Seminar and Design Studio

Final Project is a two-part thesis sequence consisting of a research seminar and design studio offered by Rensselaer Polytechnic Institute's School of Architecture. Enrollment in the fall 2023-spring 2024 cohort consisted of 11 undergraduate architecture students and 1 graduate architecture student, and in the fall 2024-spring 2025 cohort included 15 undergraduate students. Similar to the student makeup in the seminar at RISD, students enrolled in this course were introduced to designing at landscape scales and addressing environmental issues in a design project for the first time in this sequence.

During the Final Project, students conducted individual design research, beginning with a literature review of materials gathered from design disciplines and interdisciplinary sources. To develop their research questions, students in Final Project courses were required to read fiction. The fall semester provided students with the opportunity to critically and analytically engage with design discourse and fictional materials to develop research questions about how architecture can productively interface with the environment. In addition to analyzing the literature, students selected and paired the textual work with visual references. Origins of the visual research content could be selected from a wide variety of sources, including fiction, and did not have to adhere to disciplinary-specific constraints, which meant students could choose visual material from popular art, television, film, children's books, or other fictional content.

By the end of the fall semester, students submitted an intended research proposal describing their intended line of inquiry and a preliminary design proposal. By this time, students were able to describe: site specifics, social and ecological conditions, cultural conditions and history, and their anticipated design methodology. During the spring semester, the design methodology was tested and adapted based on iterative discoveries through the process of design and feedback.

To illustrate how fiction was engaged directly in the Final Project coursework, an example of how this pedagogy shaped one student's project is shared in the following description of the course structure. In a project entitled "The Environment Remembers: Using Architecture as a Mnemonic Device," by [student name], the student began by reading the sci-fi novella, *Psalm for the Wild-Built* (2021) by Becky Chambers, and *Dawn* (1987) by Octavia E. Butler. Both texts were initially discussed in a group setting among peers over several class meetings at the beginning of the fall semester. To structure the discussion as an investigation, the instructor pointed students towards speaking key themes from the texts, including how characters interacted with their environments (which included asking students how different characters acquired knowledge, what details they might have found, and how each character described their surroundings). Other guidance from the instructor included asking students how each character experienced and interpreted their surroundings (some taking refuge and safety, whereas others might have experienced fear or uncertainty) and how characters asserted agency in their storyworlds based on these conditions. One of the key points of the discussion was how an individual could perceive the environment in a variety of ways—for example, as a source of comfort or disorientation. Moreover, the students noted that the texts presented environmental encounters in much more complex ways than they typically find when looking at images of landscapes or reading reports that do not convey affect or immersive description.

One discussion that emerged in the class discussion consisted of a critical debate about the treatment of nature in paintings and architectural renderings. The students began to unpack how these images tend to miss more multifaceted interpretations of the environment. They noted how they now looked at these images as devices that played into preconceptions and cultural biases, rather than challenging such biases. By understanding a specific character's point of view and agency in a given set of circumstances or setting, students were able to interpret how greater context is needed to adequately assess an environment's many different, at times contradictory characteristics. From this standpoint, they were better positioned to question the conventions of landscape design and representation, observing how landscapes may not be as bucolic or untroubled as many images suggest. Discussions such as these led students to ask deeper questions about *who* is telling us *what* about the environment: what does a character want us to know about their current situation or their surroundings? And how do some characters allow us to see and experience the environment in ways that differ from how we might perceive, or experience, it ourselves? As a result, the students gained a greater understanding of how identity and point of view affect a character's interpretation of the environment. Additionally, students were more aware of how their own positionality impacts their interactions with the landscapes they encounter, and made them better able to challenge assumptions, biases, and stereotypes.

Using these introductory texts and conversations, the students used the content from their literature review and visual index to investigate a critical subject they found compelling to examine further. In addition to developing a unique collection of references (via literature review and visual index), students created fanfiction based on a selected source material where they created their own narrative as a spin-off of one of the texts. From these exercises, students developed their initial research proposal and presented preliminary ideas in a group setting for additional feedback and developmental conversation.

The student mentioned earlier developed writing and an initial proposal on the subject of decomposition and deforestation. They wanted to express these processes of decay through architecture, focusing on the transitory qualities of the environment and intentional human destruction of forests. In addition to the required fictional texts, this student brought additional sources into their study, including: *A Picture of Dorian Gray* (1891) by Oscar Wilde and *The Fall of the House of Usher* (2012) by Edgar Allan Poe. As a result of these sources, the student developed an interest in environmental aesthetics and expressing the decay through a visual representational system. To develop these interests, the student tackled the visualization of decay by constructing the experience through the perspectives of certain characters, storylines, and timelines. She also developed a critical framework around the effects of decay from studying fictional texts. For instance, we began asking: what message does 'decay' convey about something else? In what ways does decay describe a systemic issue, process, or set of relations?

As a result of these exercises, the student developed an unconventional perspective that regarded the forest as the main character of her project narrative. To describe forest destruction, the student developed research on palm oil plantations in Indonesia to explore how these harmful agricultural practices, despite

planting new trees, actually result in deforestation and environmental degradation. From this point, she began to critically engage with the counterintuitive fact that even certain planting regimes can actually damage native habitat. The student furthermore became interested in how locals and visitors to Indonesian parks and tourist areas rarely notice the environmental and ecological decay of the tropical forests they travel to witness and appreciate.

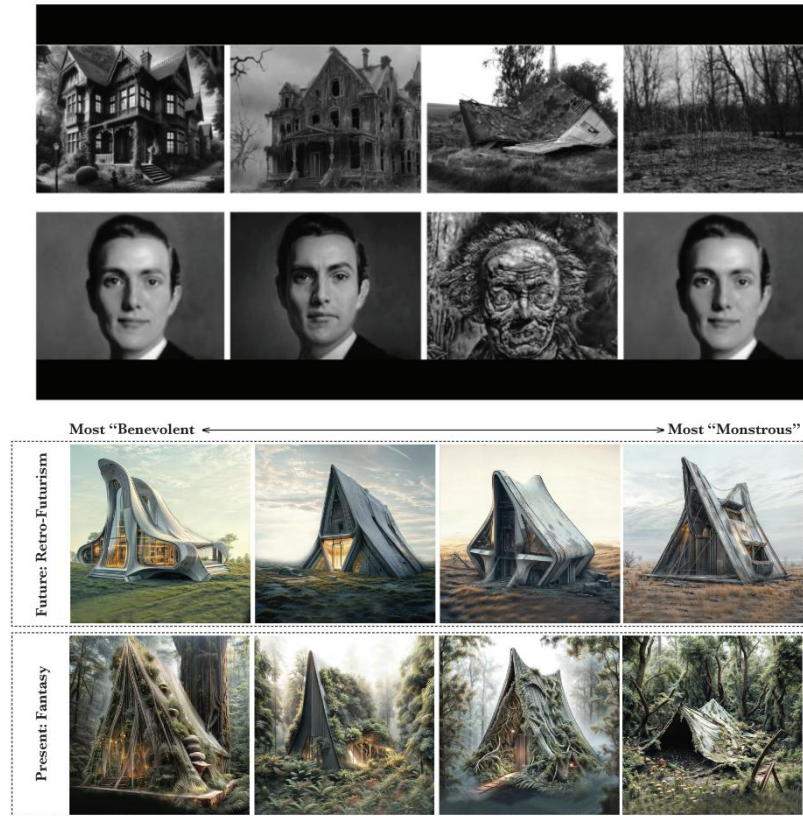


Figure 3. Student design research exploring decomposition and decay. Up) Student research on *The Fall of the House of Usher* and *A Picture of Dorian Gray*. (Down) The student’s design research explores the decomposition and decay of structures to mimic the conditions of the surrounding environment (decaying due to human influence). Visual studies were developed by the students and informed by the fictional source material. A study on decay was developed through an iterative process with the assistance of MidJourney, ChatGPT, and Photoshop during the seminar phase of the project. (Note: Ai was abandoned during the spring semester in favor of more traditional, analog design iteration and modeling methods.).

A Picture of Dorian Gray and *The Fall of the House of Usher* served as inspiration for the student's design development in the spring semester (Figure 3). These stories helped her shape architecture as a mnemonic device to depict the destruction of an Indonesian forest over time. The design consists of a range of aesthetic effects to convey environmental destruction using both a tower and a house typology. As the forest around each structure decays and physically decomposes, each structure mimics the surrounding destruction in its aesthetic decomposition and physical disassembly. The house typology records the change in the landscape on a smaller radius, up to 100 feet horizontally around each structure, whereas the tower records forest growth and decomposition in a radius of 1,500 feet. The architectural objects can reflect the effects of negative human impact on the environment as well as the forest's attempts to “fight back” and regrow—analogous to the effects on the house of Usher and Dorian Gray’s painting from the source texts (Figure 4). In the students' design narrative, locals physically alter the tower and houses as they record the changes to their forests. These architectural monuments occur as continually renegotiated symbols of human-forest relations. For the purpose of evaluating their work, the student used creative writing and storytelling to develop the design response to convey the message

of the forest as it undergoes decay and regrowth. The narrative also helped the student to structure and imagine new social construction practices oriented towards a sensitivity to reading and recording the forest, thus creating an architectural system that transcribes and encodes a record of local environmental literacy.

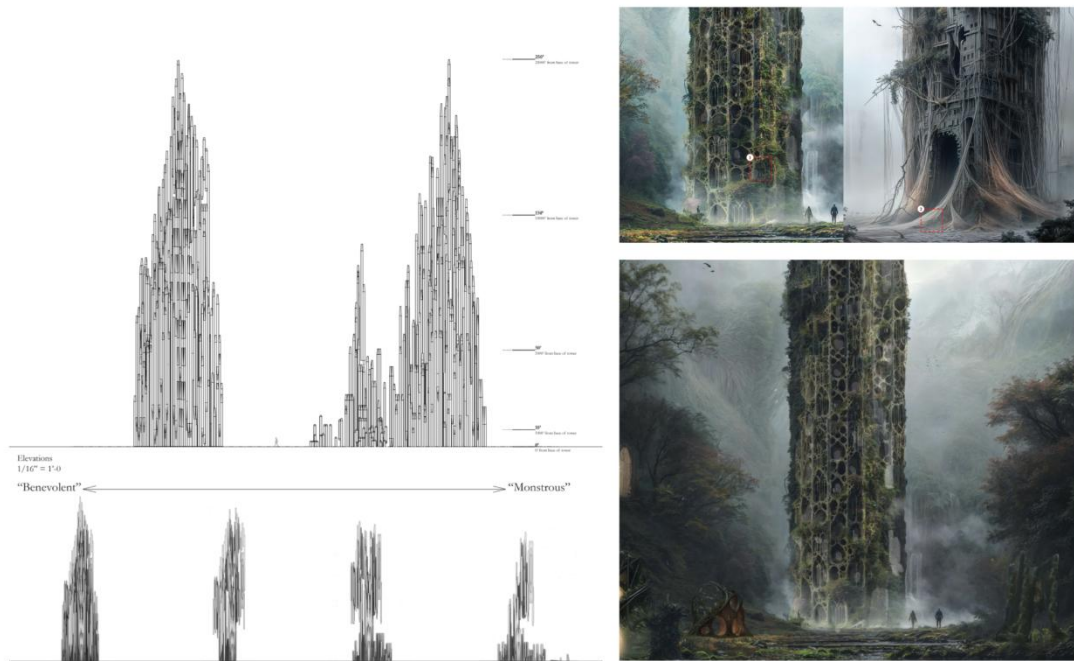


Figure 4. Design of the mnemonic tower typology. (Left) Upper elevations demonstrate the scale of the tower and two faces: in its “benevolent” phase, or when the forest surrounding the tower is in a healthy state, the tower contains all of its pieces. When the environment is destroyed, the tower begins to dissolve as pieces are taken away to reflect the fractured state of the environment. The tower furthest to the right in the series depicts a crisis moment in the forest ecology. The tower communicates this visually by containing very few pieces in a precarious configuration. (Right) Early aesthetic studies of the tower’s descriptive exterior. The student explored various formal expressions of the tower’s exterior surface to convey the forest’s conditions through the assembly of the structure. (Note: Images on the right were developed with the assistance of MidJourney, ChatGPT, and Photoshop. Images on the left were modeled by the student in Rhino.)

4 RESULTS

Upon incorporating fiction into design pedagogy, several findings emerge. First, fictional characters and stories offer a low-bar onramp into productive, even comical, disagreement and dialogue among students. We feel this happens because students can express their positions without feeling like they are attacking established canon when taking a stance. For example, rather than take the speculative design images of Superstudio as literal design proposals, one student was able to understand the fictional nature of these collages from the ongoing conversations about interpretation that were developed through reading fiction and testing forms of critique. This particular student noted that when she first saw the Superstudio images she interpreted them as *real* and earnest design proposals, rather than cultural and discursive critique. As such, students were able to develop their analytical thinking skills through engagement with fiction.

Second, fictional sources enhance students’ comprehension of environmental topics by providing immersive and memorable stories about ecosystems (as opposed to traditional and ‘distanced’ scholarship or reports, which tend to remain abstract and disconnected from haptic or personal experience). Rather than feel like they must confront a highly nuanced academic text—which is what students will typically encounter in traditional scholarly sources and reports—fictional sources convey equally complex scenarios and information. However, fictional sources tend to use plain language and a narrative framework that contains a clear point of view (POV) and perspective that can be more readily

critiqued. The fictional nature of the characters' stories and POVs likewise make discussion and interpretation of the narration more accessible for students to question and challenge, especially for students who are otherwise shy or uncertain about expressing their opinions about what seems like established doctrine or a scholar's personal convictions. This comes as no surprise, as most Western education and socialization models reinforce compliance, agreement, and conformity to established positions (Mirzeoff, 2011; Fleming, 2022), rather than engage with critical interpretation, subversion, and healthy disagreement.

Fictional sources offer students multiple avenues for interpreting environmental characteristics and local specificity. Fictional stories are astute at presenting information from a very specific point of view in a particular setting—usually that of a well-developed character or narrator in an environment developed for them to interact with meaningfully. This stands in contrast to a distanced or omniscient perspective, which is sometimes how students are asked to develop design projects—from a standpoint of the delivery of a “universal good” or from unquestioned standards set by practice and industry (Fleming, 2022; Billingsley, 2022). Even an unnamed narrator can be understood from the standpoint of literary interpretation as a subject we can choose to believe or question as the story unfolds (rather than as a dogmatic or omniscient authority). As a result, students are able to take more control over their response to the story and its contents. This allows them to criticize the character's account more readily, something that can be more challenging or intimidating when dealing with highly complex scholarly sources.

Third, fictional sources encourage students to develop unique design translations of rich and complex storyworlds through worldbuilding. While all design production can be seen as operating on a level of fictional storytelling and projection—a typical design proposal is fiction until it is built—students who engage with fictional sources are better equipped to engage with the social, political, and material challenges of our world from a productively “outsider's perspective.” From this positionality of looking back upon reality from the conditions described in fiction, students are ready and able to critique and engage with the world they encounter. After viewing the possibilities and potentials of *doing*, or *designing* something different, as conveyed in the fictional worlds, students are better able to identify the issues they wish to address in their work and reality. Instead of conforming to normative ways of designing, fiction offers students the opportunity to make design decisions that challenge the arguably problematic methods inherited from hegemonic design traditions that they (and we, as instructors) have inherited. As a result, fiction serves both as a tool for critique as well as a tool for design, in which constraints from our daily lives can be challenged and alternatives developed.

Fourth, engaging with fiction gives students a clear path to translating textual information into spatial design. While fictional texts give clues to how the imagined landscape might be formalized, ranging from highly detailed descriptions to more vague and open-ended language, all texts leave space for interpretation. This gap between the word on the page and the final drawing produced by each student is the space where design takes place. In many ways, this is quite a similar process to the leap from studio design briefs to a design project. As such, translating a fictional novel into a series of plans, sections, and perspectives is flexing the same muscle, so to speak.

Fifth, designing based on a fictional text helps students work across scales more seamlessly. Because students have delved deeply into worldbuilding and translation, as discussed before, jumping from one scale to another is easier to facilitate. This is likely augmented by the fact that some real-world constraints may be removed or reduced when designing in response to a fictional environment—it is perhaps easier to draw a regional urban plan for a fictional city than it is to create a similar regional plan for a real-world context where funding or material constraints might limit the student's strategy. While there are certainly opportunities and challenges for working in a more speculative design realm, the willingness of students to test out novel ideas and iterate quickly is certainly a promising outcome of the fictional design method.

Of course, this strategy of working across scales requires the instructor to intentionally organize the curriculum to move across detail, site, and regional scales. For instance, in the Topics in Representation seminar, students were asked to design landscapes from the vignette perspective of a singular viewpoint to the territorial scale of a map. By using a fictional narrative as the starting point for these drawings, models, and animations, students are encouraged to build their world “from the ground up,” deciding what

parameters to draw on from the text and where they can add their own design intent to create detailed and nuanced landscape spaces.

Table 2 provided in this section, entitled “Student Learning Outcomes,” further unpacks our findings from working with fiction in design pedagogy.

Table 2. Student Learning Outcomes from Fiction-Based Curricula

Learning Outcomes	Prerequisites	Strengths	Challenges
Analytical Thinking	- Instructors must teach students to develop skills in close reading, including techniques for critical analysis. - Instructors must teach students to develop skills in visual analysis.	- Students can develop unique analysis of source material - Analytical thinking skills developed in textual analysis translate into critical design thinking	- Requires additional effort from faculty and requires dedicated class time to develop these skills. - If students miss this step, then their capacity for developing a rich worldbuilding framework will have a less productive and meaningful outcome.
Environmental Literacy	-Instructors must vet source texts to better understand the student's analysis and design.	- Fictional sources provide a level of specificity about landscape environments that is helpful for students when starting design. - Environmental literacy is developed through unfolding narratives, through which students “experience” environments via a character's point of view.	- Additional knowledge is needed to confirm the accuracy of the author's descriptions of real environments. - Authors may invent unrealistic environments, requiring students to engage in additional analysis and critique of their source texts.
Worldbuilding	- Instructors take on the responsibility of ensuring worldbuilding is grounded in the needs and limitations of the realistic social, ecological, and material conditions.	- Through writing processes, students take on a greater degree of accountability and specificity in their design, seeing the “designed world” as entirely in their control.	- Depending on the source text, some worldbuilding lacks applicability to real environments, communities and issues.
Translation	- Instructors should provide students with real-world examples to compare to fictional sources. This gives students a baseline to ensure fiction-based designs address real-world contexts.	- Through drawing and modeling, design becomes more seamless, since students allow themselves greater freedom of expression than when designing in real-world settings. - Translating a fictional text into a series of plans, sections, and perspectives grows a student's ability to generate spatial environments based on given constraints.	- Additional visual resources may be needed to help make the translation. - Design tutorials may still be needed to help translate concepts into form and drawing.
Scale	- Instructors must design curricula to include assignments at multiple scales of drawing and/or modeling.	- Students design and represent an imagined world at a variety of scales more readily than in a typical design studio. - Many fictional texts offer descriptions across a range of scales for inspiration.	- Students may become focused on scales of operation that are not critical to their core design project. - Expansiveness of the environments in source texts can be overwhelming for students to engage with.

5 DISCUSSION

5.1 Limitations

While fiction presents many possibilities for advancing design experimentation, its use as a teaching tool presents several challenges. First, there is a disconnection from real, grounded sites and communities when working with fictional stories. Such texts can remain ambiguous about the cultural and contextual situatedness of practices that shape land or affect the lived experiences of real human communities. At the same time, many fictional texts can be intentionally sourced and vetted in favor of those that address real and historical contexts and that convey historically and experientially accurate conditions (Atwood, 2017; Butler, 1979). Therefore, such texts might be considered more useful than pure fantasy as sources

that encourage students to encounter the reality of conditions faced by people and ecosystems both today and historically.

Textual fiction as source material also lacks a clear visual or tectonic direction for design. Additional visual sources and techniques may need to be paired with text resources to construct a viable design proposal. Additionally, the spatial layout of the design and technical details will often need to be supplemented by sources outside of the fictional text to help students develop their design according to real material and spatial constraints. However, the productive synthesis of real-world, technical design parameters with fictional landscape inspiration can lead students to generate imaginative and unconventional design projects.

5.2 Opportunities

While there are certain limitations to the use of fiction in design seminars and studios, several opportunities are clear when considering the learning outcomes discussed above. Together, these learning outcomes point to a connecting thread when integrating fiction: that fiction supports students' empathy for human and more-than-human stakeholders in their design projects. The capacity for fiction to build empathy has been well documented in liberal arts contexts (Mar et. al., 2009; Schmetkamp & Vendrell Ferran, 2020). Building on this evidence, we see the integration of fiction in landscape and design curricula as a meaningful way to grow students' awareness and sensitivity towards users of their design proposals, and for the environment itself.

Additionally, broadening the range of voices and viewpoints included in design curricula has been brought to the center of many design departments' missions over the last few years, often in response to calls from Black, Indigenous, and people of color (BIPOC) practitioners and scholars that have been made for generations (including more recently by: Tada and Hood, 2020; Page and Memmott, 2021; Kimmerer, 2013; Barnd, 2017). The emergence of inter-institutional working groups and advocacy organizations have been established to address this concern more explicitly, like the Alternative Histories working group, the JADE Alliance, and Dark Matter U; and in response, many design departments are adapting syllabi to incorporate a wider range of voices and perspectives in design studios and seminars. While the presence of diverse voices in landscape architecture and scholarship has always been available to educators, creating greater opportunities to foreground marginalized voices and perspectives in our teaching content is needed. The authors of this paper see the incorporation of fictional sources as an extension of this effort for advancing equity and inclusion in design classrooms.

Following this trajectory, the crossover between landscape design and fiction is already becoming integral in the work of contemporary scholars and practitioners, including Jeremy Kamal, Hannah Gaengler, Liam Young, Rania Ghosn, and especially Kira Clingen's work on place-based scenario planning (2025). In *Geostories: Another Architecture for the Environment*, for example, Ghosn and El Hadi Jazairy explore geographic fiction as a mode to process climate change crises (2018). Such work is a clear example of deploying imaginative, fiction-based storytelling as a basis for design. The landscape cinematography of Jeremy Kamal is likewise informed by fictional worldbuilding. Kamal's *Mojo* series depicts imagined environments and the cultures that interact with them within the titular fictional world (2019). His work expands the imagination of Black futurism by creating imaginary worlds that take inspiration from Black culture to visualize alternate landscape and social conditions. It is evident from the work of these scholars that fiction plays an important role in raising awareness about critical social, cultural, and environmental issues. By introducing design methods that utilize fiction, we can embolden students to carry out similarly progressive and imaginative ways of designing with empathy and relationality at the forefront of the design process.

Additionally, related liberal arts disciplines are forging a new way to embrace subjectivity in research to expand the traditional definition of valuable scholarship in the academy. Academic institutions have traditionally rejected scholarship based on personal relationships, under the premise that such work is inherently subjective and therefore less reliable than other more objective modes of research. In fields like anthropology, this tendency is founded on a tradition where researchers approach studying social groups as outsiders, in many cases perpetuating the trope of westerners as scholars and BIPOC people as subjects. However, the work of Native American and Indigenous studies (NAIS) scholars in recent years have pointed to the value in embracing a more situated, personal, and in some cases, subjective,

approach to presenting scholarship. NAIS scholars like Philip J. Deloria (2019) and Alaina E. Roberts (2021) have recently completed robust surveys analyzing their own family trees. Rather than approaching this as a weakness in the work, such authors argue that a more personal approach both gives access to a more embedded understanding of the histories they research, and in some cases give them access to material that would be unethical for an outsider scholar to review. Such researchers are carving a meaningful and rich path for a more personal and situated mode of scholarship. This approach inspires our call to embrace the subjective and empathetic approaches to design that can be facilitated through fiction texts.

Finally, an added value of engaging in fiction as a source for worldbuilding is its legibility to a broader public, speaking to non-designers whose experience with creative imagining might stem from a favorite English class in high school, a science fiction elective in college, or a hobby of watching science fiction films with friends. As we seek to grow interest in the field of landscape architecture, fictional storytelling can be a bridge between students and audiences who do not have design backgrounds or expertise but are interested in learning more about the environment and human relations within it. As such, we find teaching about landscape with the aid of fiction can lower the bar for entry into design for new students entering a design seminar or studio in the field for the first time. In this way, communicating with and through fictional landscapes becomes a useful strategy for welcoming a more diverse range of students and audiences to landscape architecture.

6 CONCLUSION

We are living in a moment when concern for the environment and empathy for other people are of utmost importance, yet are perhaps more trivialized than ever. With climate change unfolding at a magnitude that is difficult to comprehend, and with health and social justice crises increasingly affecting individuals around the world, finding ways to make such challenges personal and meaningful can mobilize students to engage with such challenges, rather than feel overwhelmed by them. The ability of fiction to personalize universal problems engages students in consciously designing with more attention to empathy and relating to others. In response, this paper advocates for the integration of fiction into the landscape design curriculum to help students connect with environmental issues and understand a variety of sociopolitical and cultural perspectives. We find that engaging fiction in design classrooms builds our students' ability to read the environment more closely and helps them gain empathy for both real and imagined places and people. Fiction also provides an accessible scaffold for engaging a wide audience, to help non-experts better understand the discipline and participate in the design process. With fiction as a new tool available to them, students are able to discuss, critique, and design in response to complex social and environmental conditions that might otherwise be overwhelming. While more exploration of the crossover between fiction and landscape design is certainly needed, our comparison of two case study curricula finds several meaningful ways that this productive overlap has inspired students' work. Ultimately, the methods and the student outcomes outlined here contribute to a landscape design pedagogy rooted in personal, empathic connection between design students and the environments which they create.

REFERENCES

- Atwood, M. (2017). *The handmaid's tale* (1st Anchor Books ed.). New York: Anchor Books. (Original work published 1985).
- Barnd, N. B. (2017). *Native space: Geographic strategies to unsettle settler colonialism*. Corvallis: Oregon State University Press.
- Billingsley, J. (2022). Aesthetics. In R. Weller (Ed.), *The landscape project* (pp. 214–227). Applied Research & Design Publishing.
- Brown, D. K. (2021). The allegorical architectural project: Provocateurs, propositions and confrontations. *Architectural Design*, 91(4), 120–127. <https://doi.org/10.1002/ad.2720>
- Butler, O. E. (1997). *Dawn*. London: Headline.
- Butler, O. E. (1979). *Kindred* (1st ed.). Garden City, New York: Doubleday & Company, Inc.
- Chambers, B. (2021). *A psalm for the wild-built*. New York: Tordotcom.
- Clingen, K. (2025). Place-based scenario planning: A design research methodology for climate adaptation. In G. Karunaratne (Ed.), *Resilient urbanism* (pp. 250–264). Taylor & Francis.

- Clay, G. (1973). *Close-up: How to read the American city*. New York: Praeger.
- Cronon, W. (1992). A place for stories: Nature, history, and narrative. *The Journal of American History*, 78(4), 1347–1376.
- Deloria, P. J. (2019). *Becoming Mary Sully: Toward an American Indian abstract*. University of Washington Press.
- Doherty, G. (2016). Is landscape ... literature? In G. Doherty & C. Waldheim (Eds.), *Is landscape ...?* (pp. 13–43). Routledge.
- Fleming, B. (2022). Politics. In R. Weller (Ed.), *The landscape project* (pp. 202–213). Applied Research & Design Publishing.
- Ghosn, R., Jazairy, E. H., & Design Earth. (2018). *Geostories: Another architecture for the environment*. New York: Actar Publishers.
- Haraway, D. (1988). Situated knowledges: The science question in feminism and the privilege of partial perspective. *Feminist Studies*, 14(3), 575–599.
- Holmes, R. (2020, July). The problem with solutions. *Places Journal*. <https://doi.org/10.22269/200714>
- hooks, b. (2019). Kentucky is my fate; Touching the earth. In *Belonging: A culture of place* (1st ed., pp. 6–24, 363–368). Routledge.
- Kamal, J. (Director). (2019). *Mojo* [Film]. SCI-Arc Channel.
- Kimmerer, R. W. (2013). *Braiding sweetgrass: Indigenous wisdom, scientific knowledge and the teachings of plants* (1st ed.). Milkweed Editions.
- Mar, R. A., Oatley, K., & Peterson, J. B. (2009). Exploring the link between reading fiction and empathy: Ruling out individual differences and examining outcomes. *COMM*, 34(4), 407–428.
- Mirzoeff, N. (2011). *The right to look: A counterhistory of visibility*. Duke University Press.
- Tada, G. M., & Hood, W. (2020). *Black landscapes matter*. Charlottesville; London: University of Virginia Press.
- Tsing, A. L. (2015). *The mushroom at the end of the world: On the possibility of life in capitalist ruins*. Princeton University Press.
- Page, A., & Memmott, P. (2021). *Design: Building on country*. Port Melbourne, Vic.: Thames & Hudson.
- Poe, E. A. (2012). *The fall of the house of Usher*. Garfield Heights, OH: Duke Classics. (Original work published 1839).
- Potteiger, M., & Purinton, J. (1998). *Landscape narratives: Design practices for telling stories*. John Wiley & Sons.
- Roberts, A. E. (2021). *I've been here all the while: Black freedom on Native land*. Philadelphia: University of Pennsylvania Press.
- Scarfo, B. (2023). Landscape architecture as storytelling. *Landscape Research Record*, 12, 17–25.
- Schmetkamp, S., & Vendrell Ferran, Í. (2020). Introduction: Empathy, fiction, and imagination. *Topoi*, 39(4), 743–749. <https://doi.org/10.1007/s11245-019-09664-3>
- Spirn, A. W. (1998). *The language of landscape*. New Haven, CT.: Yale University Press.
- Wilde, O. (1891). *The picture of Dorian Gray*. New York: Ward Lock and Co.
- Wu, M.Y. (2022). *The man with the compound eyes*. New York: Vintage.