Collage and Space
in
Landscape Architectural Imagination and Representation

by

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Abstract

This thesis explores the role of collage-making as a creative tool in the design process for landscape architecture. It posits that collage offers a unique way for exploring project briefs and site-specific surveys, empowering landscape designers to openly interact with a site's spatial and temporal dynamics. The study then ventures into the potential of Artificial Intelligence (AI) in generating landscape architectural imagery, creating a new form of collage as a type of composite image that activates and supports creativity. The convergence of human cognition and AI engines as analytical tools represents a new development in landscape architecture. By reviewing literature and analyzing case studies, this research underscores the practical significance of collage and a set of criteria for its interpretation in enhancing spatial imagination and representation in the design process of landscape architecture.

Collage, as an expressive art form, and the text-to-image generation AI tool Midjourney share traits that are critical for landscape architectural ideation. Designers' interpretations of sites and project briefs guide collage-making, anchoring and infusing design ideas and temporal concepts into a specific context. Similarly, Midjourney's renderings reflect designers' written prompts and selected images, unveiling intentional choices in how the context is understood, visualized, and reimagined. In comparison to Midjourney, which obscures how word compositions transform into spatial qualities and characteristics, collage-making demands considerable intentionality and vigilance. Approaching any representational tools with caution, recognizing their limitations and potential pitfalls, is vital to imagining new possibilities. As part of the design process, analogue collage and AI images serve as tools to foster intentionality and creativity, rather than a projection of final renderings of the accepted design.

A critical understanding of context, the deliberate use of descriptive words and image fragments, and their juxtaposition within collages exist in a delicate balance with site-specific questions that are difficult to reconcile in standard screen-generated representations. This visualization process demands time and considerable engagement, a dynamic that evolves with image generating platforms like Midjourney, which requires constant, informed input to produce relevant image iterations. This thesis proposes pathways for interpreting collage to bridge the gap between landscape descriptions and images, fostering a deeper understanding of site surveys, project briefs, and visual iterations. It positions collage as an important tool to enrich the design process in landscape architecture.

The work and writings of James Corner (1996, 2014) are central to this argument. He examines the agency of landscape and how individuals and groups value, perceive, and interpret nature, space, and time. Of particular interest is how Corner critiques the limitations of Cartesian mapping relative to site-specific perception, emphasizing collage and the temporal aspects of his eidetic 'discovery measures' to enrich spatial interpretations in landscape design. Examined through the lens of the philosophy of perception, eight interconnected criteria — ideas of space, emotion, reference, context, method, aspiration, audience, and neutrality-priority paradox — underlie intuitive yet contextually grounded interpretations of collages. They serve as eidetic entry points to investigate notions of spatial order in landscape representations. Based on these criteria, the thesis examines collages by the Situationist International (SI) and other utopian movements that challenged the implied order within conventional maps. Corner's writings offer unique critical insights into how eidetic perception and spatial representation dynamically influence landscape interpretation, integrating site-specific factors that shape and give form to lived experiences.

Seeking out and building upon these otherwise repressed ‘discovery measures’ in the landscape design process, this thesis explores how AI prompts and renderings can resonate with the lived experience of a given site. The thesis offers a framework to emphasize the human designer’s agency in the collaborative integration of AI within the design process. While maps and plans cannot fully convey the temporal complexities of site-specific perceptions and/or their social cultural contexts to which they come attached, they can be explored through a collaboration between collage-making and AI-enhanced renderings.

Keywords: Collage, landscape architectural design process, AI, Midjourney

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Dedication

This thesis is dedicated to my parents, whom I have not been able to visit for the past six years, and to my brother and sister, who took care of them during difficult times.

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INTRODUCTION

This thesis investigates the potential of collage as a dynamic and practical design tool and a mode of thought in landscape architecture, particularly in its shift towards AI representational methods. Landscape collages, often perceived as subjective juxtapositions of diverse ideas, have a rich historical context. They encapsulate personal reflections and collective values ingrained in social, cultural, and environmental contexts. As composite images, collages can integrate fragments of images, planimetric views, words, and symbols. These elements, whether in isolation or through new meanings created by intentional juxtaposition, can implicitly suggest or explicitly convey specific spatial and temporal references to a broad audience. However, the potential of collage to challenge traditional perspectival conceptions of time and perceptions of space and place, presenting temporal-spatial qualities as essential to understanding the specificity of landscape architectural sites and contexts, has been less explored in landscape architecture.

On the other hand, conventional software such as Computer-Aided Design (CAD) is limited in its ability to convey the imaginative, hermeneutical, and phenomenological aspects of space and place. These tools inherently embed Cartesian interpretations of space and time, promoting hegemonic spatial approaches and measures that can objectify conceptions of space and place. This limitation underscores the need for alternative design tools that can better capture how and why ideas rooted in memory or culture shape our perception of space and the significance we attribute to different spatial and temporal qualities.

Collage and/or photomontage have enriched the conventional landscape design process, encompassing survey, analysis, and design, since their adoption in the early 20th century in architecture and arts. Figures like Dieter Kienast (1945-1998) and Yves Brunier (1962-1991) played a pivotal role in this evolution, employing collages to communicate temporal qualities of place and landscape design ideas, often adhering to atmospheric perspectival representation rules. Their contributions have been significant, shaping the evolution of collage in landscape architecture. Xerox technology and the growing exposure to stimulating images further enhanced the understanding of temporal and spatial qualities, surpassing the limiting frame of traditional geometrical perspectives, as demonstrated in the composite works of these individuals. James Corner, a key figure in this evolution, expanded this practice by exploring photomontage as a method for temporal mapping, where temporal qualities and geometric Cartesian measures transcend conventional maps, transforming into eidetic representations of sites. The eidetic possesses the spatial and temporal memory of a site that simply looking at the site would otherwise deny or repress.

In *Taking Measures Across the American Landscapes* (1996), Corner presented collage and photomontage as a medium to examine the interplay between pragmatic Cartesian values and site-specific perceptual values in shaping eidetic conceptions of space. His eidetic images imply or evoke pluralistic spatial and temporal understandings and perceptions of sites. By framing these Cartesian and temporal dynamics as "discovery measures", which are specific criteria or guidelines for interpreting spatial and temporal qualities, Corner and his co-author, Alex MacLean, identified eidetic measures of land, rule, control, fit, and faith to reimagine space and reinterpret spatial representation measures enacted through Cartesian maps. These speculative measures offer hermeneutic criteria rooted in context, enabling readers to view collage as tools to synthesize, align, or challenge site-specific temporal measures. They are manifestations of spatial order and as subjective yet explicit ideation vehicles to reinterpret, in this case, American landscapes.

Landscape collages can contribute to the ideation in the design/visualization process created with the AI engine Midjourney, which is a tool that requires 'informed' prompts to produce image iterations of landscape sites and contexts. Like other Cartesian media, such as CAD and GIS, AI generative engines operate on hegemonic Cartesian constructs. Unlike these conventional digital representational tools, Midjourney allows designers to generate site images through descriptive prompts. Like collage-making, Midjourney enables designers to compose various elements and spatial connotations through words and images, 'composing' both perspectival and non-perspectival renderings. Unlike collage-making, where designers intentionally challenge their ideation criteria through images and interpretations, the enigmatic AI process reductively begins with describing 'desired' visions, treating its visual iterations as momentary finalized results. This reduction has implications for the landscape design process. In Midjourney, the description of a site dynamic or a contextual subject directly influences the visual results. This effect raises questions such as: How should we describe landscape spaces? And how should we examine 'finalized' AI criteria and renderings?

While AI generative tools encompass a broad range of capabilities beyond the scope of this thesis, they are developing rapidly and bringing new representational capabilities to enrich the landscape design process. For instance, Stable Diffusion allows designers to fine-tune and train AI models by feeding the engine multiple images, criteria, and prompts, narrowing results to align with specific contexts or styles. These developments in AI tools hold the promise of transforming the landscape design process, offering new ways to interpret and represent spatial and temporal qualities.

Initial examinations of Midjourney reveal that when using contextual prompts to address a specific location or site feature, the engine generates images that do not necessarily align with what was desired. However, the engine produces images relevant to the contextual input, which, like a collage, provoke imaginative interpretations and scenarios about space and the design process, encompassing survey, analysis, and design.

This thesis focuses exclusively on collage — including analogue collage and computer-aided photomontage — and the Midjourney engine, as both can evoke creative thinking. It explores landscape collages to communicate the temporal qualities of sites, which can inform interpretation criteria for other landscape representational tools, such as Midjourney iterations of landscape sites. The temporal richness of landscape collages may provoke creative thinking about the relationship between spatial measures and conceptions of spatial orders in relationship to sites. Landscape architectural projects spatialize temporally rich ideas grounded in natural, cultural, social, and political orders. Outlining qualitative interpretative criteria for landscape collages could serve to inform and ground descriptive AI prompts while examining the situatedness of visual iterations.

Hence, the research question in this thesis is:

What criteria can guide the creation and interpretation of landscape collages to enhance creativity in the landscape design process? Regardless of the technology available at any point in the future, survey, analysis, and design processes will remain fundamental in landscape architecture. In an era of rapid technological evolution, landscape designers require improved interpretations of temporal findings to provide a deeper understanding of space and spatial representational methods, informing the creation of spaces enriched by and reflective of temporal, social, cultural, and natural conditions.

CLASSIFICATION OF MEDIA

This thesis defines ***collage*** as the art of juxtaposing image fragments to express otherwise repressed ideas of time and space. Variations of collage, such as digital photomontage, photo-composite, and perspective-composite are explored. The common thread in any collage practice is the process of *image juxtaposition* to convey specific ideas or context. Cubism, closely linked to collage, offers a significant perspective for studying the art form. It unveils the delicate balance between temporal abstraction and precision in spatial representation.[1]

Because this thesis explores the role of collage and design software in the ideation process, it is important to understand ***conventional landscape representation and design methods.*** This process generally refers to iterations designers make with software through plan, section, elevation, and perspective. These tools empower designers to bring their visions to life. Also, conventional design methods, entailing survey, analysis, and design, refer to initially being introduced to the brief by a client, visiting the design site in the initial stages and throughout the design process, and eventually proceeding to develop design proposals through various media, which lead to site construction.

Design software can be broadly classified into three categories: engineering, illustrative, and generative. Each type serves a specific purpose in the design process.

- **Engineering software** is highly calculative and has two-dimensional or three-dimensional workspaces. Engineering software classifications are CAD (Computer-Aided Design): e.g., AutoCAD by Autodesk, Rhino3D and Grasshopper (parametric design) by Robert McNeel & Associates, Sketchup by Trimble inc.; BIM (Building Information Modeling), e.g., Revit by

[1] The history of collage is not limited to the Cubism movement. For example, decoupage is the art of cutting silhouette profiles out of paper and arranging, fixing, gluing, and finally, applying varnish layers to decorate surfaces and objects. Decoupage was considered folk art, practiced in many places such as Siberia and Poland before collage gained attention in the Cubist movement in the early 20th century. Moreover, in the history of miniature paintings, and for instance, Persian miniatures, artists used similar decoupage techniques, sometimes using gold sheets in combination with delicate paintings to decorate or illustrate poetry books and murals, making the scripts significantly more engaging to read. Miniature books illustrated epic battles, love stories, travelogues, notes, and poems to make the reading spatial and imaginative in a world where travelling was not easy.
In addition, Chinese and Japanese woodblock prints from the early 19th century also brought textual descriptions and images together (Napier, 2007). The mass production of mixed-media woodblock prints included images and texts. They hint at how ordinary people and those in power constructed imaginative descriptions and narratives continually transforming the familiar sense of space through representation of places (bridge, pond, garden, etc.) and ideas of time such as the seasons or atmospheric conditions like fog. Hieroglyphics (Chinese characters) were strategically used in garden inscriptions and as decorative elements on pavilions and bridges, often presented as calligraphy within the prints. The combination of image and texts conveyed cultural meanings, seasonal changes, and atmospheric conditions, offering viewers insights into the depicted scenes' historical, cultural, and philosophical dimensions.

Autodesk, ArchiCAD by Graphisoft, Vectorworks by Nemetschek; and GIS (Geographic Information System), e.g., ArcGIS by Esri, and others.

- **Illustrative software** is software that can edit images or enable designers to produce images. Examples of image editors are Photoshop, InDesign, and Illustrator by Adobe. Moreover, examples of image producers are 3D motor renders such as VRay (by Chaos Group), MentalRay (by NVIDIA), Artlantis (by Fast Render LDA), and others.
- **Generative AI software** in this thesis focuses exclusively on the image generation tool Midjourney, which entered the market in the summer of 2022. Dall.E technology is similar to Midjourney engine's workflow — both are text-to-image generation tools. They utilize diffusion-probability models that operate on Deep Learning (DL), Machine Learning (ML), and Reinforced Deep Learning (RDL). These technologies underpin Natural Language Processes (NLP) and Large Language Models (LLM), enabling the generation of images based on textual descriptions. Currently (early 2025), designers cannot modify or train AI models in Midjourney. The engine generates images by synthesizing new visuals based on patterns and features derived from existing image datasets (See Tsidylo and Sendra, 2023, p. 204; Dondero, 2025, pp. 133-134). Generative AI software that allows for model training is excluded from this study. For instance, Stable Diffusion, also released in 2022, provides users with greater control over 'expected results' through features such as design variances, sliders, and the ability to create shareable libraries for Python code. These options allow users to add datasets, train models, and refine visual modes or styles. For example, one can build a library for a specific domain, such as fashion, and further develop style variances within that domain.

MOTIVATION FOR STUDY - SHAPED IN IRAN

The initial attraction to examine collage in landscape architecture emerged from two experiences in academic and professional practice of landscape architecture between 2010-2018. The first was teaching landscape thinking in design and creative hand-drawing to students of various design backgrounds from different provinces in Iran. This experience underscored the unique role of the instructor in guiding students through the design process. Students responded positively to the visual unfolding of contextual design conversations, particularly when it was done by the instructor. Their performance improved when they incorporated collages into their design conversations, visually unfolding and investigating recurring design questions. The sequential unfolding connections between design questions and design contexts in collage-making, which invests individuals' interests and design talents, impacted students' rigour, possibly manifesting heightened creativity and imagination.

The impact of cultural and historical contexts on spatial design is profound. These factors deeply influence sites and places, shaping how people perceive and care for spaces. This effect is particularly evident in a culturally cohesive country such as Iran. Grounding landscape ideas within the cultural, historical, and religious contexts has significant implications for shaping spaces. For instance, enclosed gardens such as Islamic Gardens or char-bagh (four-gardens) recursively appear in various variations for reasons beyond climatic conditions or religious symbolism in Iran. The diversity of languages, climates, vernacular techniques, and historical contexts in Iran has shaped spatial narratives to describe desirable spaces within the built environment. Therefore, as a teaching method, visualizing ideas through collages and drawings accompanied by engaging, sometimes entertaining stories about precedent processes and techniques revealed the crucial role of time and perception of ideas in shaping students' design abilities, imagination, and confidence. Overall, students shared *earned secrets* of sites through collage-making, which revealed and intensified their collective understanding of contextual systems, narratives, values, and notions of beauty.

The second, different architectural, landscape, and urban design professional responsibilities for various governmental agencies in Iran, triggered a desire to pursue a Ph.D. in context-based creativity in landscape architecture. These responsibilities dealt with natural disasters and passive defense. The pressing need for context-based creativity, particularly in sites prone to natural disasters, highlighted several shortcomings of conventional landscape representational methods. More specifically, the disconnections between landscape designs' conventional representational methods and vernacular methods of treating, designing, and caring for spaces became very clear. The urgency of these situations

pointed to the need to incorporate image composites as a quicker and more visually accessible means to negotiate interdisciplinary site decisions, such as outlining infrastructure, i.e., accessibilities, dwelling densities, landmarks, and water. These are elements that, once constructed, are more likely to remain and impact spaces for decades. This situation highlights the role of landscape architects in envisioning spatial orders that reflect how people understand space and embody a sense of place. It must be acknowledged that land governance in Iran, given the frequency of such situations, for better or worse, often results in relatively militant protocols and approaches to post-natural disasters, i.e., rebuilding the infrastructure, which often neglects contextual considerations in favour of time (and mega-scale gentrification and money, of course).

The point here is that collage thinking was an accessible design communication method in numerous situations. People and clients could easily understand atmospheric collages, as they are rich in contextual connotations of spatially situated elements. Professionally, generating context-based ideas and representation methods that could include different disciplines and people played a significant role in reimagining a better means to approach collective micro to mega scaled projects. These experiences are the reason for pursuing this study.

A SHIFT IN THINKING – SHAPED IN CANADA

An early outline for the study aimed to define creativity within the discipline of landscape architecture in both education and practice. It began by triangulating paradigms of creativity in human psychology with philosophical approaches to perception, perceptions of space, and landscape approaches for defining spatial meaning. With the advent of AI-enhanced representational tools such as Midjourney and DALL.E, the research shifted towards exploring the relationships between different landscape representation tools and their potential impact on perception and design decisions in the normative landscape design process — survey, analysis, and design. This shift underscores the importance of understanding spatial perception in landscape architecture, invoking a sense of significance and relevance.

Representational techniques in landscape architecture education and practice are evolving with advancements in Virtual Reality (VR), Augmented Reality (AR), Mixed Reality (MR), and Artificial Intelligence (AI). Technologies like Midjourney and similar platforms now enable anyone to produce hyperrealistic images from verbal prompts, raising questions about what constitutes a real spatial experience, what defines a creative and critical design act, and what ultimately matters for the discipline

in the future. These questions have clarified the need to return to a structured understanding of space, time, and the media used to represent landscape architectural ideas and projects.

Wilk (2021, pp. 210-221) and Cureton (2016, p. 26, 79) argue that hyper-technological tools, such as design software in VR/AI/AR modes, can impede designers' perception of the reality of the subject by overstimulating the senses and not allowing time to digest distilled moments to perceive spatially significant dynamics within projects. With Midjourney and similar platforms, Tsidylo and Sendra (2023, p. 212) identify a "lack of fundamental knowledge" about AI, "insufficient knowledge" of interdisciplinary thinking between 'art' and 'exact sciences', and a "lack of skills in formulating a description of images" as key factors hindering the effective incorporation of AI tools in the training of future designers. This study underscores the urgent need for interdisciplinary knowledge and seeks to guide the bridging of these two realms.

The research progressed from investigating collage and creativity in landscape architectural design to examining how collage-making can intensify site-specific ideation and inform prompt inputs and spatial interpretations in Midjourney. Specifically, it focuses on collage to explore temporal qualities and spatial perceptions to evoke site-specific approaches to space, context, design significance, and impact. This endeavour ultimately seeks to represent landscape architecture as an essential discipline influencing subsequent spatial decisions in different disciplines and practices in the creation of the built environment.

BACKGROUND

This thesis is grounded in a study of how collage and Cubism can rework conventional spatial ideation and representational methods, such as maps, plans, and perspectival renderings. The common thread among these areas is the intentional communication of spatially and temporally significant ideas that influence spatial interpretation and analytic decisions. Landscape architects follow the conventional landscape design process — survey, analysis, and design — using these ideas and findings with representational methods to design, influence, and improve human-nature dynamics.

As this thesis is written, Artificial Intelligence (AI) has become mainstream in landscape visualization. Design software, which evolves through AI, influences design ideation and how space is perceived.[2]

[2] The *virtual space* generated, analyzed, and utilized by AI engines — known as "latent space" (Dondero, 2025, pp. 113-114) — operates on numerical relationships, assigning mathematical structures to images and their features. It is fundamentally different from conventional representation software, which operates on XYZ coordinates.

Midjourney transforms spatially, emotionally, and temporally charged prompts into provocative images, resonating with collage, though with less human intentionality over the creation of the spatial image. AI-generated images can serve as a new form of visual representation that complements and challenges traditional methods, offering fresh perspectives and reshaping how designers approach spatial ideation and representation. However, one must remember that AI engines shift how images are produced and perceived, much like how Cubism shifted the expectations of paintings.

In 1907, Cubist masters Pablo Picasso and Georges Braque made a significant leap from depicting space through the perspectival tradition to representing simultaneously cohesive and non-cohesive spatial and temporal relationships in a single work of art. Collage for them underlined the dynamic *flow* between objects, subjects, and context, intensifying human perceptions of the paintings' subject. Picasso further explored the idea of representing temporal accuracy and the interplay between subject, context, and media in his room paintings of the 1920s. His 1937 *Guernica* is critical to this thesis, as it represents a synthesis of private and public space imbued with affective charge, where fear unfolding in the public space or outside world creeps into Picasso's private space inside the room. Collage played a profound role in representing the collapsing threshold between private and public space, synthesizing ideas that signify and challenge the familiar as *inside* the room — personal reflections, such as belongings, and the horror happening *outside* in the public space — collective reflections, such as news and ideas of pain and death (Greenberg, 1959, ed. 1961; Clark, 1999; 2013).

The use of collage in architectural thinking is not new. In *Collage and Architecture* (2014), Jennifer Shields delves into the profound influence of Cubism and collage on modern architecture. Shields highlights how Le Corbusier, a pioneer in modern architecture, drew inspiration from the structural grid, a concept evident in Juan Gris' Cubist paintings (Shields, 2014, p. 30). This grid influenced Le Corbusier's creation of *Le Modulor* — a spatial order and scale of proportions based on human measurements to create standardizing dimensions in architecture and design [3] With its inherent temporal quality, this standardizing order has significantly shaped our conception and perception of space. The interconnectedness of different art forms, as demonstrated by the influence of Cubism and collage on

[3] Amédée Ozenfant and Le Corbusier formulated the Purism doctrine around 1918, emphasizing the representation of pure and simplified forms to critique Cubism's complexity. While this post-Cubist movement might have played a role in the formulation of *Le Modular*, Cohen (2014, p. 3, 1-14) grounds Le Corbusier's pursuit of proportion and standardization in architecture within a broader historical trajectory, linking it to ongoing discussions about 'harmony' and 'measurement' in design (See Le Corbusier, 1956, p. 37).

architecture, urban design, and landscape architecture, underscores the rich and diverse influences that inform and transform spatial understanding.

Collage City (1978) by Colin Rowe and Fred Koetter presents a post-modern vision of urban space, advocating for a juxtaposition of old and new spatial elements — modern and traditional cities — to envision a middle-ground 'utopia' (Rowe and Koetter, 1978, ed. 1983). Their utopian concept aimed to allow people to "enjoy utopian poetics without the need to suffer from utopian politics" (Khachatryan, 2020; Rowe and Koetter, 1983, p. 125). The book's ideas on collage as a concept and method resonate with radical political approaches to space proposed by avant-garde groups such as the Situationist International (SI) in the 1950s and other movements like Superstudio and Archigram in the 1960s. The Situationist International employed collage to challenge capitalist notions of social and political *order* embedded within city maps. Similarly, Superstudio and Archigram used collage to articulate utopian visions of living spaces. *Collage City* (1978) and these avant-garde movements can be interpreted as reactions to the utilitarian and function-driven approaches to urban planning advocated in CIAM (International Congresses of Modern Architecture) meetings, which emphasized industrial mass production and standardized spatial measures. The application of collage in city planning and landscape architecture appears primarily concerned with the conception of space and spatial orders. These examples emphasize the significance of transitioning from temporal perception evoked by different spatial measures to conceptions of space and spatial orders.

James Corner's writings and collages, in *Taking Measures Across the American Landscape* (Corner and MacLean, 1996) and *The Landscape Imagination: Collected Essays of James Corner* (2014), are central to this thesis for their exploration of the relationship between site-specific perceptual findings and Cartesian spatial units and frameworks. His work, which both shapes and is shaped by temporal perceptions, is a significant contribution to the discipline. Corner frames this dynamic relationship as a search for 'discovery measures' in landscape, presenting them as temporal and eidetic mapping in his 1996 work with MacLean. Temporal mapping introduces nuanced and situated interpretations of landscape sites. Building on the work of predecessors such as Ian McHarg (1920-2001), his professor, Corner emphasizes the need for critical studies on 'performative dimensions' of landscapes through the dialogue between our imagination of space and site and their representations in landscape documents (See Corner, 2014, p. 251; 1999, p. 16; 1991, p. 90; Corner and MacLean, 1996). Corner's investigation of collage and photomontage as a means of temporal mapping has three arguments to examine.

First, he validates collage for its emancipatory potential to synthesize, establish or disrupt complex relationships between various parts in the medium of representation (Corner, 2014, p. 16, 21). His collages, for instance, juxtapose elements of 'Constructivist' and 'geometric' characteristics manifesting anthropocentric measure, order, or function with tangible site-specific temporal views and natural notions of the ground (context) (Shields, 2014, pp. 63-69, 91-96). Corner maintains that eidetic image and imagination describe ideas and images that reference emotions and memories tied to specific sites. He argues that the eidetic imagination can read collage through a synthetic lens, seeing the representation as a means to perceive "agents of change" between the design and context (Corner, 2014, p. 257). In other words, the imagination can blur the hard line between figure and ground, agency and impact, design and context-reaction, or the chemistry between spatial and temporal measures in eidetic images and within projects. Shields (2014, p. 96) and Herrington (2013, p. 81) mention Corner's High Line project in New York, where the site-specific temporal design challenges the imagination of a garden colliding with people's perceptions of time/ruin, ascending from eidetic memories of an abandoned railroad. The temporal quality of the design arises from *intentional* representations of the past and present through the past railroads and present gardens on the site.

Secondly, Corner uses collage to establish time-consuming *relationships* with sites and subjects. This idea is or can be weakened when translated to conventional landscape representations and significantly reduced in hyper-technological representation tools such as Midjourney. On the technical and pragmatic end of designing projects, Corner freely exploits collage as an "ideogram" (Shields, 2014, p. 94; Waldheim and Hansen, 2015, p. 162), a means to experience and re-evaluate ideas and changes within spaces upon literal or hypothetical interventions (Cureton, 2016, p. 103, 114, 126). The emancipatory quality of collage highlights the absence of this *inter-operational* quality in digital representational methods (Cureton, 2016, p. 28, 30; Shields, 2014, p. 90).

Third, and possibly encapsulating the former two ideas, is *landscape measure*. Corner argues for revealing "previously unforeseen relationships", constructing the order of site or program, or *discovering* "critical invention and inscription of new patterns for inhabitation in the landscape" (Corner, 2014, p. 16, 44). He suggests a substantial difference between landscape architecture and architectural practices. Corner acknowledges the critical role of construction practices in situating and grounding the human body within the world's vastness, creating a point of 'reference' (Corner and MacLean, 1996, pp. 27-28, 34; Shields, 2014, p. 93). He highlights that spatial interventions define various measures and orders, influencing how humans imagine space and perceive narratives in the lived experience of sites (Corner and MacLean,

1996). In simple words, Corner argues for finding critical landscape measures to construct site order. He asks if conventional representational methods based on Cartesian measures are sufficient to communicate such vast interdisciplinary spatial interpretations. Corner and MacLean's book, *Taking Measures Across the American Landscape* (1996), speaks extensively to landscape measures, continuing Ian McHarg's endeavours toward finding and grounding site-specific regional measures in *Design with Nature* (1969).

In *Collage and Architecture* (2014), Shields dedicates a section to Corner's ideas and collages. The book presents a genealogical diagram of the relationship between Cubism and architecture, drawing on Alfred H. Barr, Jr.'s catalog for MoMA, *Cubism and Abstract Art* (1936), which outlines the relationship between Cubism and other art movements of the late 19th and early 20th centuries. Shields situates Corner's collages within this broader lineage originating from Cubism. Initially, the book explores how collage and Cubism — as a *spatial* vision — transformed spatial perception and representation across various artistic and architectural realms. In agreement with Shields, who suggests the importance of paradox in Corner's collages, she proposes that "time as an indicator through which to understand process and transformation links Corner's work to that of the cubists" (Shields, 2014, p. 92).

In this instance, Shields reads Corner's landscape collages as architectural images, signifying architectural conception of time and space, including its construction processes and materials. She articulates time-space distortions in architectural collages through 'ambiguity' and other architectural vocabulary such as 'phenomenal transparency,' 'figure-ground', and 'palimpsest' (Shields, 2014). These terms are not just descriptors but also form the basis of her interpretation of 20th-century architecture's approach to collage and space. However, Shields seems to overlook that different disciplines influence different ways of observing the world – that time is perceived differently in landscape projects than in architectural projects. For example, when perceiving spatial concepts concerning nature in landscape architectural projects, humans have numerous shared means to consciously or subconsciously perceive time and space (Jellicoe, 1983). While the experience of time in Le Corbusier's ramp at Villa la Roche in Paris is a phenomenological experience of form, focusing on the individual's experience, in the High Line in New York, a *collective memory* of an abandoned railroad reveals the temporality underlying the project's intentions. Corner's concern is finding spatial "discovery measures" based on the specificity of sites and contexts (Corner and MacLean, 1996, p. 32) — how spatial experiences and perceptions influence collectively-lived contextual orders and vice versa. Time is simply one factor among other measures in the landscape architectural imagination.

This understanding begs the question regarding the reduction of ideas into crippled rendering images, 'kitsch' images and schemes, which Cureton believes (2016, p. 110), unrealistically schematize utopic projects in architectural and landscape architectural computer renderings. Architecture and landscape architecture may share the same utopic imagination, such as sustainability or inclusivity; however, one can have a reductive understanding of complex images due to cultural biases or discipline biases. For example, although the essential communicative agents in architectural representation through collages are central in Shields' book, she underplays the landscape's exclusive agency in Corner's collages. Corner's approach to measuring space is a theoretical and practical tool for designers. He sought to project how one measures space economically, politically, mythically, and ethically, influences subsequent design criteria and eidetic measures, enabling interpretations and ultimately shaping the lived experience (Corner and MacLean, 1996, pp. 3-15). This complex dynamic between spatial and eidetic measures includes understanding and representing time and temporally intensive ideas in landscape projects and spaces (Corner, 1999, pp. 6-8).

Landscape architecture, distinct from art, exerts a unique influence on human experience (Cureton, 2016, p. 109; Moore, 2009, pp. 1-15). Its impact extends from prominent projects like parks and gardens to less obvious spaces such as urban and regional scale works. These landscape projects condition the imagination, profoundly shaping physical, emotional, cultural, and social responses (Hemer and Dundon, 2016; Moore, 2009, p. 76). In essence, landscapes serve as a backdrop for the unfolding of human physical and social reactions over *time* (Cureton, 2016; Moore, 2009, p. 89). Furthermore, landscape spaces can evoke culturally specific aesthetic experiences, which are both influenced by and influential on personal and collective values (Moore, 2010, p.72; also see a similar argument for the agency of 'art' in Putnam, 2002, p. 103; Dewey, 1910, p. 13). This thesis examines collage to study and reveal the relationships between these factors and their influence on the design process in landscape architecture.

AIMS AND OBJECTIVES OF THIS THESIS

This investigation explores collage-making as a method for landscape architectural ideation and imagination, particularly emphasizing the designer's active role in the design process. The designer curates and juxtaposes elements in the collage, influencing and being influenced by spatial and temporal site perceptions. This process serves to evoke nuanced interpretations of landscapes and their contexts. The thesis aims to outline a method to discern and study these temporally interconnected dynamics, which are crucial in working with the text-to-image engine Midjourney.

RESEARCH METHODOLOGY

The enquiry, "what validates collage as a stimulus for imaginative thinking, contributing to the conventional landscape design processes?" is not a generic question, but a unique perspective that we bring to the table. Collage, as a general framework for landscape design, is inherently tied to singular sites. Yet, this question has the potential to spark numerous 'particularistic questions' (Groat and Wang, 2013, p. 148). The title of the inquiry presents an 'instrumental' what question, leading to subsequent 'realist' how questions (Maxwell, 2005, pp. 65-67; Groat and Wang, 2013, p. 149). Ultimately, the research title amplifies time and perceptual variances in human experiences and projections, falling under the 'process research question,' which seeks to understand the underlying dynamics of a process, in this case, the use of collage in landscape architecture. This approach contrasts with a 'variance question' that aims to identify the variances (Maxwell, 2005, pp. 65-67; Groat and Wang, 2013, p. 149). This work is a product of reflexive — inductive and deductive, and qualitative interpretations of objective and subjective ideas within the literature. It presents qualitative and pragmatic claims within Creswell's spectrum for knowledge claims (2003): "postpositivist, constructivism, advocacy/participatory, and pragmatism" (also see Groat and Wang, 2013, p. 87).

STRATEGY

The research framework in this thesis is derived from an examination of methods in *Landscape Architecture Research, Inquiry, Strategy, Design* (2011) by Elen Deming and Simon Swaffield. This thesis incorporates *engaged action* and *projective design* as the primary strategy to examine ideas of *space* as understood by different disciplines. Additionally, this thesis uses *literature review*, *interpretative*, *classification*, and *logical system* approaches as the second research strategy because the research question(s) concern images and their effect on shaping ideas. These two strategies hint at the breadth and depth of various disciplines and scientific trajectories concentrating on human imagination and body. Finally, this study draws on landscape architecture, psychology, cognitive science, arts, philosophy and Artificial Intelligence as primary sources for exploring collage and specifically Midjourney as ideational tools within the discipline of landscape architecture.

A secondary question, 'how can the analogue practice of collage-making awaken questions of time and space in the context of AI where an imaginative interaction with landscape is lacking?', is significant. It opens the primary question, what criteria can guide the creation and interpretation of landscape collages to enhance creativity in the landscape design process, to minor subjects of interest. These include collage,

space, technology, time, perception of beauty and utility, stimulation, and landscape imagination. This strategy not only broadens the scope of the research but also highlights the interdisciplinary nature of the study, which is crucial in addressing complex issues in landscape architecture.

This thesis is not just a theoretical exercise but a practical tool that can inform designers of site-specific conditions. For collage to expose and transcend perceptions of spatial complexities within the landscape design process, a systematic investigation into contextual design measures and spatial representational methods in landscape spaces and projects is needed. The following methods provide a more detailed, chapter-by-chapter exploration of the dynamics between engaged action and projective design strategies, focusing on establishing criteria for interpreting landscape collages.

Chapter One delves into the foundations of the landscape design process, encompassing survey, analysis, and design. The ideas contributing to understanding landscape agency are examined with a focus on theories of landscape architecture, particularly humanistic and temporal perceptions of designed spaces. Landscape agency, in this context, refers to the ability of landscape projects to shape and influence the experiences of individuals — how landscape projects influence and enable experiences grounded in particular places and times. James Corner's writings, collages, and photomontages begin to demonstrate how imagination contributes to extending landscape agency. Collages serve as a creative, experimental space for eidetic ideation in landscape architecture.

Chapter Two focusing on philosophical grounding, explores the workings of imagination, phenomenology, and hermeneutics to explain how eidetic perception, which involves situated mental images, evokes vivid questions, contributing to open-ended yet contextually grounded interpretations of collages. This chapter outlines eight interconnected criteria underpinning our conceptions of familiarity and spatial order in collages.

Chapter Three examines Cubism and collage case studies. They explore the interdependence of spatial imagination, shaped by emotions and representational media, in forming the mind's understanding of space. The criteria outlined in Chapter Two are refined, exploring how and why representational methods of the built environment can implicitly suggest or explicitly convey ideas of temporal order. This refinement aligns with and highlights the significance of Corner's approach to surveying space and landscape sites through eidetic collages, which provides a structured lens to analyze and articulate multifaceted notions of spatial order intrinsic within specific locales.

Chapter Four examines how effectively Midjourney, a generative artificial intelligence image creation platform, follows the user's verbal instructions using the criteria established in Chapter Three. This chapter projects different spatial and temporal connotations into the engine. It evaluates whether the generated results resonate with the given prompts and/or echo the lived experience within a given context. Ultimately, this chapter explores how the Midjourney engine prioritizes specific instructions and identifies the spatial qualities and elements it generates without explicit prompting, implicitly suggesting or conveying them as an order.

SIGNIFICANCE

Investigating and writing about collage as an integral part of the creative process, where designers use *abstract image juxtapositions* to brainstorm ideas to generate and represent spatial visions in landscape architectural education and practice, is a significant and relevant yet slippery task. Particularly, exploring how imagination functions in landscape architecture, given the intertwined evolution of culture and technology, exposes the exploratory nature of this research. While AI developments in spatial representation accelerate our ability to process spatial data, landscape architectural collages slow down and humanize the spatial conception process, triggering reflections on what is contextually relevant, significant, and crucial in design thinking. The writing process has had to shift focus to accommodate this slippery, sometimes paradoxical, characteristic. Collage can include planimetric information and other spatial stimuli, including connotations of social, cultural, and political ideas. At times, finding the right word, not informed by what technological tools deem relevant or measurable, became significant obstacles in this thesis. How much of our spatial thinking is shaped by technology? Moreover, how can landscape architecture enrich what people expect from spaces they find complex, rich, familiar, joyful, and significant for the future?

The thesis proposes a discipline-specific approach to interpreting collages, conventional representational documents, and AI-generated renderings conveying landscape ideas. A further contribution is envisioning a future where AI text-to-image generation media is tailored explicitly to meet the needs of landscape architects, thereby making the research findings directly applicable to the professional practice of landscape architecture.

The proposed interpretation method aims to analyze and *articulate subjective, temporal, and abstract* spatial qualities within landscape architectural collages, facilitating the generation of situated AI prompts

and renderings. This approach enhances the role of the *human* designer within the conventional design process — survey, analysis, and design — by providing essential, site-specific frameworks to understand Cartesian and non-Cartesian spatial measures communicated during the survey and analysis stage, ultimately shaping the design stage. The emphasis on sites includes intuitive reflections, which define a converging basis for spatial understandings, interpretations, and decisions.

Ultimately, the thesis aims to offer thoughtful insights into how people perceive spaces and places. It provides landscape designers with observation, interpretation, and engagement methods, incorporating traditional and emergent representational techniques into their design processes. By establishing foundational criteria for articulating spatial qualities within lived experiences, this thesis presents ideas for examining and assessing other design documents, including during design negotiations in diverse contexts.

STYLE

This thesis follows Harvard citation and referencing style.

CHAPTER ONE: COLLAGE IN LANDSCAPE ARCHITECTURE

1.1 Introduction

With their transformative power to reshape the land for human and non-human use, landscape architects play a crucial role in shaping human-nature dynamics. Landscape projects aim to connect people with nature and enrich daily life through experiences that support physical and mental well-being. Designers can influence how people perceive landscape spaces and appreciate the project's aesthetics and functional dimensions. In the landscape design process, each site presents unique contextual conditions through its physical presence, character and energy, stimulating designers' thoughts. Designers utilize a range of representational tools to explore, analyze, and reimagine a site's spatial and temporal potentials. The ultimate goal is to create spaces responsive to project briefs, including their overarching missions and defined functional requirements. By studying and understanding each site's expansive and distinctive context, designers uncover potential and constraints, transforming them into design opportunities. Bridging spatial experience and representation enlightens designers' knowledge about the site's underlying social, cultural, and historical conditions that shape lived experiences. Drawing, sketching, and designing through various media become essential tools that enrich and refine what is observed, felt, and understood from landscape sites.

Knowledge from a site and a designer's previous experiences significantly influence their designs in landscape architecture. These renewed and intimate encounters, often informed by memory, help designers reimagine and visualize how their designs influence other sites. Spatial experiences in landscape architectural sites evoke imagination through memory and subjective interpretations. However, the designer's representations and subsequent interpretation of these experiences are inherently limited by knowledge, skill, and chosen media. This limitation underscores the challenges designers face in faithfully portraying their experiences. Imagery and visualization shape and enrich perceptions of sites through temporal relationships that evolve over time. These emotional reflections, often considered subjective thoughts in the design process, indicate the dynamic nature of design. For individual designers, some sites may carry a more substantial emotional charge than others, influenced by a range of subjective and temporal factors or objective physical conditions.

The dynamic interplay between imagination, interpretation, and representation underpins perceptions of beauty and utility, which are at the core of landscape agency in the discipline. Landscape agency is not simply the ability of landscapes to shape human experiences and behaviours, but it captures a

transformative power that can redefine understandings of spaces. It is instrumental in defining what landscapes are and how landscape architectural designers and projects enrich lived experiences (Corner, 2014; Cureton, 2016).

Understanding how people dwell in different spaces is crucial for the standard landscape architectural design process, entailing survey, analysis, and design. What is surveyed objectively, through various spatial measures and representational methods, and experientially, through site interactions ultimately influences the analysis and design stages. The communication of surveyed elements influences ideation priorities in the design process, and ultimately, the prioritized design ideas profoundly influence the lived experience on sites. Landscape designers reinterpret and reimagine project briefs and design priorities through multiple site visits, surveys, and various analytic tools and methods to understand site-specific conditions, potentials, and constraints. This understanding of how people interact with spaces informs the design process.

This chapter explores collage as a medium for enriching the interpretive engagement with landscape spaces, project briefs, and design proposals. It focuses on James Corner's writings and collages, which investigate the relationship between landscape imagination and representation. Specifically, it examines Corner's use of collage as an ideational tool to reveal the interplay between Cartesian spatial measures, exemplified by conventional maps, and perceptual spatial measures, experienced physically and mentally at a site. Both measures shape how landscapes are seen and interpreted. Corner argues that exploring the relationships between these dimensions, which he describes as a search for site-specific 'discovery measures', can significantly expand eidetic interpretations of landscape spaces (Corner and MacLean, 1996, p. 32). This creative search, in turn, enhances the agency, role and influence of landscape architects, enabling them to reimagine the potential of landscape architecture (Corner, 2014). As tools, collage and photomontage can inspire rich spatial and conceptual design ideas (Schunk, 2018), fostering optimism about the future of landscape architecture.

Conventional representational methods like maps, plans, sections, and diagrams are excellent at conveying pragmatic aspects of site surveys, including Cartesian measures, surfaces, forms, and other 'measurable' relationships. However, they often fail to reveal the visceral reactions to spatial design decisions that people and designers have. These reactions, which are not explicitly articulated in normative maps and plans, leave unanswered questions about why people and designers prefer one space over another or what cultural and social reactions and responses people have to elements within

landscapes. Collage, in contrast, offers a liberating platform for designers. It has the potential to gather contradictory ideas and generate emotional reactions, providing the freedom to reveal site-specific discovery measures in highly imaginative ways. This open-ended medium improves the creative interaction between people, site, and designers, encouraging novel avenues of design communication and creation in landscape architecture.

1.2 Background

Before the 1990s, many designers incorporated collage thinking to elevate their ideational process. They integrated intuitive, subjective, and temporal design reflections into their understandings of sites, juxtaposing different materials to connote ideational elements in a spatial assemblage manner, much like a collage. This transformative approach facilitated a more immediate, bodily-engaged exposure to the contrasts between context (site), subject (landscape architecture), and design elements. The role of intuitive design decisions was magnified, fostering a sense of connection and engagement with the design process. The contrasts felt spatial as collage encouraged creative, sometimes unconventional interpretations and representations of landscape architecture. The intentional act of juxtaposing heterogeneous elements was crucial to evoking these interactions. The following examples demonstrate the potential of collage thinking to evoke such interactions of landscape architectural ideas and elements, including our perceptions of spatial stimuli and materials.

The Bagel Garden by Martha Schwartz is an assemblage that challenges the definition of a garden (Herrington, 2013) and landscape materials (Olin, 1988) by intentionally juxtaposing bagels as a non-landscape 'element' within a familiar landscape context, a conventional garden. This unconventional juxtaposition challenges the norm and inspires new thinking about design elements. By contrast, the Garden of Cosmic Speculation by Charles Jencks and Maggie Keswick in the 1980s is composed of curved landforms and sculpted materials with softly graded surfaces, demonstrating the designers' intentional interventions through contrasting artificial-non-artificial elements. Additionally, gardens designed by Roberto Burle Marx draw more direct inspiration from Cubist silhouettes, surfaces, and shapes. His designs further evoke grounded aesthetic responses through the use of native tropical plants, "Although Burle Marx was later to suggest that his curves were influenced by the curves of rivers flowing through the Brazilian landscape" (Doherty, 2021, p. 62). Others like Yves Brunier (Pollak, 2022, pp. 116-123) and Dieter Kienast (Waldheim and Hansen, 2015, pp. 174-177; Freytag, 2021; Kienast, 1997; 2005) used Xerox to

collage photographic images with drawings to enhance communication and reveal the richness of a site's perceptual qualities of landscape elements, such as trees and shrubs (Wilk, 2021, pp. 180-183). Figures such as Lawrence Halprin (1970) and Bernard Lassus (1998) incorporated 'fragmented thinking', as a complementary approach to collage thinking, breaking down complex spatial findings into smaller, more manageable and tangible parts to communicate site complexities.[1]

These designers use collage and photomontage to convey, project, and examine the potential of their imagined findings.[2] Their fragmented spatial representations uniquely capture the complex spatial, contextual, and perceptual qualities of a site or subject. These subjective imagery techniques explore pluralistic interpretations of space, time, context, and subject, which are difficult to communicate through conventional representational methods such as maps and perspectival renderings.[3] However, there is a potential for these subjective, temporal, and aesthetically charged means of design communication to be better understood and utilized within the landscape architectural design process.

Corner's collages in *Taking Measures Across the American Landscape* (Corner and MacLean, 1996) and those by Mathur and Da Cunha in *Mississipi Floods* (2001) underscore the dynamic interplay between imagination and representation within landscape spaces. These works move beyond scenographic depictions, instead foregrounding landscape's performative qualities, including its flux, temporality, and site-specific conditions (Shields, 2014, pp. 91-95, 193-195). Corner's focus on eidetic spatial measures (Corner and MacLean, 1996) accentuates their site-specific nature and evolving potential, which refers to the adaptability and changeability of interpretations of spatial elements over time. His writings offer a foundation for exploring the role of collage as a powerful ideational tool or medium with practical applications in the landscape architectural design process. Corner's work foregrounds the role of human imagination in interpreting site-specific conditions within landscapes and their representations within design media.

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[1] Ways of seeing and describing the landscape as a collagic, interconnected and interdependent space are evident in Lassus's book, *The Landscape Approach* (1998). He asserted (1998, p. 76), "In a new Optics, each fraction is not only an object situated in a horizontality in relation with others in the same temporality, but the fraction of its own time. Beyond the displacement of the given, one finds oneself no longer before a juxtaposition of objects that are able or not to gather in a landscape, but before a simultaneity of different moments, of vertical fractions each having its own necessary space, so that it results in an ensemble of associated structures mutually polarized by their temporal differences."

[2] See other examples in Appendix.

[3] Cureton refers to conventional hyperrealistic renderings as 'past future projection' which disrupt 'presentism' — "where the present is often the basis on which historical and future landscapes are projected, often deriving meaning with reference to current conditions" (Cureton, 2016, pp. 211-212).

Working from Corner's approach, this thesis aims to establish the significance of the humanistic-temporal perspective in landscape architecture literature particularly in framing spatial interpretation measures within the design process. Corner challenges this perspective through phenomenology and hermeneutics. Broadly summarized, two complementary approaches — or perhaps a spectrum — exist for interpreting and conveying landscape imagination and representational measures. The first is a positivistic-technical view emphasizing the conventional 'linear' design process involving survey, analysis, and design, established in the 19th century (Meller, 2005, p. 126). The second approach, the humanistic-temporal perspective, is important and can magnify a non-anthropocentric view. It complements the positivistic view by emphasizing the influential role of human responses in shaping the environment and what they deem significant in their surroundings (Corner, 2014, p. 7; Tuan, 1977; 1979, pp. 387-422). Previously, landscape architect James A. LaGro's emphasis on "critical inquiry, criticism, and research" studied the intersection between the humanistic and positivistic approaches to landscape ideas to "expand the field's research capacity" (LaGro, 1988, p. 170, 185).

The bodily-engaged approach to landscape imagination underpinning its interpretation, as seen in the writings of James Corner in *The Landscape Imagination: The Collected Essays of James Corner* (2014), considers how the relationship between humans and space can/should influence the agency of landscape architecture. Corner's focus on landscape representation in *Taking Measures Across the American Landscape* (1996), co-authored with Alex MacLean, magnifies this line of thought by searching for eidetic spatial measures, which are criteria that enable a pluralistic synthesis of and between Cartesian and non-Cartesian interpretations of landscape sites. These eidetic spatial measures capture a landscape's 'essence' or 'whatness', going beyond mere physical measurements**.** His writings on landscape imagination and representational measures extend the understanding of the landscape design process in the context of technological developments in spatial communication and deepen interpretations of landscape architecture's agency, what landscape architecture is now or can be in the future. This understanding is particularly relevant to technological developments in spatial communication, which have significantly influenced the perception and design of landscapes (Corner and MacLean, 1996).

1.3 Landscape Architectural Design Process

The standard landscape architectural design process is complex and interconnected, and follows a linear survey, analysis, and design framework. This process, practised in numerous disciplines interested in the built environment, is not a series of isolated steps but a continuous, iterative flow of exploration and

creation. The survey involves scrutinizing the sites' specificities and capturing unique physical, ecological, and social conditions. The analysis then builds on the findings from the survey, interpreting and investigating relationships that shape the landscape. Design proposals are, then, a creative reimagination of the spatial configuration of the land, transforming abstract findings and analysis into representations, and documents, and eventually constructed environments. This emphasis on continuous exploration and creation in the design engages designers and clients and fosters a commitment to the final project.

The entire design process is influenced by assessments of what counts as valuable criteria or measures. The survey inquiry extends throughout the design process and is communicated through various representational methods, including visual media and verbal conversations. Site surveys mainly concern understanding and communicating site specificities. The visual representation of surveyed ideas is a powerful tool that involves placing explicit data or abstract concepts on a medium to make implicit findings like design measures, relationships, and elements explicit. Making the invisible visible through visual representation is a key aspect of the design process, enhancing understanding and communication. This emphasis on situating the ideas and spatial measures of a visual representation involves a specific context. The contextualized grounding then serves as the basis for further analysis.

Site surveys involve a range of media and processes. The standard approach is visiting sites of inquiry and taking notes, sketching, and photographing various relationships involved, including ideas of the lived experience and various design forces, such as site elements. The latter includes site conditions underscoring human-nature relationships, which unfold into more advanced structures as physical orders or site metabolisms. The influence of these relationships on design is a key aspect of landscape architecture. Within this process, finding how culturally nuanced relationships influence such physical structures is often referred to as finding the spatial syntax in urban analysis and design works (Van Nes and Yamu, 2021).[4]

[4] Space syntax "connects the fields of urban spatial analysis and urban design in the arena of transport, land use, and people's behaviour. An ever-growing number of international scholars and practitioners are applying space syntax at various scales, from buildings and neighbourhoods to metropolitan areas and entire regions" (Van Nes and Yamu, 2021, p. v). In *Introduction to Spatial Syntax in Urban Studies* (2021), Van Nes and Yamu expand on the foundational theories of space syntax introduced by Bill Hillier and Julienne Hanson in *The Social Logic of Space* (1984) and further developed by Hillier in *Space is the Machine* (1996). Bill Hillier, a pioneer of spatial syntax theory, defined it as an analytical method for understanding urban spatial configurations and their impact on civic and social behaviour. His work contributed to a model (and software) for representing spatial-temporal experiences and insights within urban planning.

Hillier's conception of space syntax provided ways to describe and frame space, emphasizing natural movement within cities to explain spatial qualities influencing urban economies and experiences. This synthesis between space configuration and behaviour is further emphasized at different scales, where the geometric configuration influences the broader scale, and experiential configuration explains the local. He introduced concepts like spatial integration and connectivity using graph theory from discrete

Studying human-nature relationships in landscape architecture and geography is generally called finding 'topological' relationships (Jiang, 2017, p. 1).[5] Topological relationships refer to the spatial and contextual relationships between different elements within a landscape and how these relationships influence the experience of the landscape. Corner suggests that landscape is "experienced as a lived-upon topological field, a highly situated network of relationships and associations that is perhaps best represented as a geographical map of collagic dimensions" (Corner, 2014, p. 167). Hence, landscape representation, idea communication, and media gain relevance where physical and behavioural surveys meet.

There have been profound advancements in site surveys through remote sensing technology like Lidar, which uses light pulses, typically laser, to measure variable distances to the Earth's surface, resulting in more accurate site representations. Lidar, or similar technologies, create point-cloud maps, which are extensive collections of data points in three-dimensional space, where each point represents a specific location in the environment (Girot and Imhoff, 2016, pp. 145-153). The point-cloud maps then become a dominant context to generate other maps and data of the physical environment (Cureton, 2016, p. 26, 44-56). The distance between representations of the physical reality and ideas within the lived experience renders site analysis and syntax a purely human endeavour. It is important to note the distanced and positivistic measures communicated in conventional maps, which aims to capture spatial ideas.

Space is a relatively modern notion (Corner, 2014, p. 166; Heidegger, 1951, trans. 2006, pp. 66-76). Categorizing space into urban, regional, ecological, political, and mythical adds complexity and division to landscape ideas, suggesting many branches, means, and methods to define and intervene in landscape projects. In geography, space is studied as a 'container, as network, as perception, as a construct,' with the former being objective and the latter being subjective (Braun and Knitter, 2016, pp. 1-12). Such divisions reveal the complexity of what to consider as the spatial context in topological and topographical seeing.

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mathematics. These concepts are quantifiable factors essential for understanding space, movement, economy, multi-scale characteristics, and urban grid's dual (geometrical and temporal) nature. Space syntax enables one to study spatial experiences scientifically and through models, representing "the social content of spatial patterning and the spatial content of social patterning" (Hillier and Hanson 1984, pp. x–xi).

In their book of 2021, Van Nes and Yamu build on these foundational concepts, explaining different applications of space syntax. They integrate advanced technologies and analytical techniques to explore spatial factors such as crime rates, relationships between micro- and macro-level spatial analysis, quantitative spatial factors (e.g., data from questionnaires), and qualitative encounters with spatial elements (e.g., pedestrian flow), concluding with future potentials and limitation of space syntax for understanding urban dynamics.

[5] Bin Jiang is a GIS expert and geographic scientist who employs the term 'topological perception' within the context of geography and GIS. He emphasizes the intersection of spatial (topographical) and structural (topological) relationships through concepts such as Tobler's Law and the Scaling Law — geographic principles that resonate with Christopher Alexander's idea of *living structure* (2001), which examines the roles of life centers, closeness, scale, and connectedness in creating a coherent whole.

The geographer Yi-Fu Tuan believed that, in the positivistic view, representations give primacy either to time or space, and this reduction of the time-space experience may have influenced humans' conceptions of space and place (Tuan, 1979).[6]

In landscape architectural design, surveying space through topological, topographical, geometrical, and geographical criteria is inevitable to understand spatial specificities. Such investigations are initiated through regional surveys and communicated by various representational means and methods.

In the early 20th century, many planners conducted regional surveys to seek rational projections for the future development of land, transitioning from rural areas to towns. Meller suggests (2005, p. 126) that "a general survey method applicable to all cities" was crucial for large-scale decision-making. Patrick Geddes (1854-1932), a Scotsman, was a critical figure in regional town planning of this period and outlined criteria for regional site surveys. His regional approach, which started from a topological and topographical site understanding to the region's specificities, significantly contributed to the field. The method he proposed sought to project a future evolution of towns by mapping the particularities, relations, possible connections, and possible conurbations, "the process of urbanization in industrial areas ... which swallowed up the individual identity of former settlements" (Meller, 2005, p. 136). In Geddes's words, surveys needed to follow a "unity of method" which "is necessary for clearness, indispensable for comparison" (Meller, 2005, p. 126; Geddes, 1914, ed. 1949, p. 131). This unity of method in planning brings clarity and comparability to the field, as surveying and comparison go hand in hand by dividing regions into data, data into groups, and groups into categories and subcategories. In other words, Geddes sought to understand the evolution of contexts as regions. His book *Cities in Evolution* (1915, ed. 1949) operates within a middle ground between topological and topographical, focusing on the region and geographical mapping that draws layers, lines, and boundaries. Geddes inspired topological-topographical regional ideas and geographical, scientific surveying methods to comprehensively assess how to survey and project spatial ideas and measures. He is famous for being a "cultural evolutionist," which puts him firmly in the humanist approach to geography (Meller, 2005, p. 126, 228).

Topological and topographical representations of site-specificities in landscapes are thus different from geometric representations of spaces, now mainly generated through Cartesian modes, such as Computer-Aided Design (CAD) and Geographic Information System (GIS) (Jiang, 2017, p. 1). However, as outlined

[6] For Tuan, "a place is the compelling focus of a field: it is a small world, the node at which activities converge", whereas space is "a contact with the world that precedes thinking; hence its opaqueness to analysis", and the represented geometric space is an expression of relations, "a sophisticated human construct the adoption of which has enabled us to control nature …" (Tuan, 1979, p. 408, 389).

above, both have agency within human perception; the former intensifies understandings and the latter grounds and projects the understood knowledge. Inferred from Jiang (2017; 2018; 2019), topological and topographical representations can include geometric representations, Cartesian measures, and eidetic associations or perceptual measures of place.

Today, the survey-analysis-design process, while effective, is heavily influenced by software languages and Cartesian spatial principles. These systems tend to promote a mindset that seeks certainty by combining spatial interpretations, surveyed measures, and design concepts into preconceived virtual spaces, often reducing the complexity of landscapes to geometric representations — static representations of space and time. However, it is important to remember that the creativity of the landscape designer thrives on fostering moments of uncertainty. These moments, where intuitive spatial and temporal perceptions on and about the site and ideas informed by design briefs can extend beyond the limitations of static representational media, are the catalysts for considering alternative approaches to landscape design.

Landscape designers deal with complex environmental problems. Ideas of ecology and sustainable designs are current topics in the discipline and are rooted in McHarg's endeavours. His book *Design with Nature* (1969) emphasized rational thinking about the design process by focusing on spatial measures and their possible correlations, providing a scientific *method* for assessing and integrating natural systems into landscape and regional planning (McHarg, 1969; Corner, 2014, p. 25). McHarg's ideas inspired Spirn's *Granite Garden* (1984), which suggests seeing cities as 'inseparable' from nature and thus being directly or indirectly affected by 'natural forces' (Spirn, 2006, p. 45). These works continue to resonate in contemporary design, shaping ideas of zero-carbon designs and ecological balance. Their objective approaches to space and spatial measures, rooted in a positivist paradigm, offer a rational and scientific framework for addressing environmental challenges, demonstrating the enduring relevance of McHarg's thinking in the discipline. In recent decades, a growing emphasis has been on involving the public user in the design process. This emphasis on the role of the users in space can be traced back to those who advocated for a more humanistic, poetic, and participatory approaches to landscape architectural designs, such as Corner (2014), Spirn (1988), and others. Software platforms such as CAD, GIS, Rhino, SketchUp, and others are conventionally used to communicate these aspirations. These deterministically geometric spatial tools are complemented by exploratory traditions and illustrative software such as Photoshop to unfold a landscape's experiential, temporal, poetic, and participatory dimensions.

Spatial representation methods significantly influence landscape ideation, communicating vital measures and relationships by quantifying and qualifying them. AI engines will revolutionize the ideational process by combining and altering spatial conceptions underpinning survey, analysis, and design works. This speculation is based on how designers, or lay people, adjust to new ways of dealing with visually compelling information and AI-enhanced survey methods, such as the application of Virtual Reality (VR) goggles in Lidar drones for remote sensing surveying methods. Surveying or ways of seeing influence analysis, design, and ways of doing.

Landscape site surveys, along with subsequent analysis and design endeavours, rely heavily on temporal and experiential site perceptions and spatial representational methods and criteria, all of which are rooted in and shaped by time, culture, and available technology. These subjective and objective criteria for understanding various landscape measures evolve, while other more subtle and ephemeral qualities remain timeless, reflecting the enduring bond between nature and humans.

Historically, preconceptions of subjective and objective spatial criteria conveyed through paintings and classic texts played a vital role in shaping how landscapes were conceived, perceived, and represented. They were closely aligned with survey, analysis, and design practices. Post-Renaissance gardens were represented through linear and atmospheric perspectives, and their conception was primarily influenced by what their elite owners considered to be a vision of Arcadia (Ruff, 2015). Virgil's book *Arcadia* (70 B.C.E.) inspired post-Renaissance garden designers, informing ways of seeing peace or seeking peace in natural spaces and countryside (Wilk, 2021, p. 70; Ruff, 2015).[7] The 'humanist' Petrarch, a key figure in the Renaissance, was known for his descriptive writings of 1366 C.E. that helped to associate nature with "positive regenerative experiences". His ideas of nature and its regenerative powers influenced the concept of Arcadia, which is known to be the origin of Arcadian aesthetics after the Renaissance in garden designs (Wilk, 2021, p. 71; Ruff, 2015, pp. 25-30). Arcadian aesthetics facilitated viewing and conceiving designed green spaces as places of joy through landscape garden manifestations, as in Renaissance, picturesque, or romantic gardens (Wilk, 2021, pp. 69-71). Arcadian visions, which refer to the idealized, harmonious, and peaceful views of nature, still exist, underscoring humanity's inclination towards natural spaces. Jellicoe correlated this inclination with human subconscious development throughout history (Jellicoe, 1983). Arcadian aesthetics were not merely stylistic choices but vehicles for expressing more profound ideas of spatial order, described by Ruff as "cosmic unity and harmony" (Ruff, 2015, p. 31). They

[7] Arcadia, or 'Arkadia,' is a 'fictional place' and a 'pastoral poetic story' by Theocritus (born 300 B.C.) and later developed by Virgil (70 B.C.).

reflect the enduring human desire to design landscapes that evoke peace, balance, timeless values, and design measures that continue to shape contemporary renderings, including AI-generated landscape images. However, these conventional and more recent forms of landscape media often present landscapes through hegemonic conceptions of space, treating them less as a situated, rich, spatial-temporal medium and more as an objective model to be studied.

Howett (1987, p. 4) asserted that the synthesis of seeing landscape space as a model to be visually studied can be traced to ideas of the Picturesque, "a term expressive of the peculiar kind of beauty, which is agreeable in a picture" (Gilpin, 1768, p. xii). The 18th-century picturesque garden reflects both a positivistic and humanistic mindset for defining a beautiful garden. In her paper "Framed Again: The Picturesque Aesthetics of Contemporary Landscapes" (2006), Herrington discusses how ideas of the picturesque can reinstate ideas of a particular 'style, ideology, and aesthetic mode' in contemporary times. Picturesque ideas can be argued to be both positivistic, emphasizing spatial criteria and rules, and humanistic, exploring how the imagination can perceive landscape by juxtaposing different landscape elements. While contemporary practice utilizes a broader palette of materials as landscape elements,[8] previous writers such as Gilpin (1724-1804) or contemporary authors like Olin (1988, p. 167) advocated for observing nature and human-nature dynamics through speculative emotions and not preconceptions as in paintings and other arts.[9] Reflecting on Gilpin's writings, Ruff wrote:

> Gilpin urged everyone, not just artists, to go out into the landscape and look for scenes that reminded them of paintings by such masters as Claude Lorraine, not as examples of the Ideal [author's capitalization], but as a way of seeing. In so doing he taught a generation to see and appreciate nature, through the mediation of art (Ruff, 2015, p. 112).

The shift in conceiving and perceiving spatial measures of beauty following the Renaissance is profound and significant. Renaissance Arcadian aesthetics favoured symmetrical and formal layouts to evoke Arcadian beauty, as seen in Villa Lante in Italy. Subsequent designs in picturesque and pastoral gardens prioritized nature's spatial and temporal characteristics as fundamental spatial virtues (Ruff, 2015, pp. 61-

[8] For instance, Martha Schwartz's Bagel Garden.

[9] On the intersection between media, space, and temporally rich conveyable landscape measures, Olin asserted (1988, p. 167): "The subject matter or meanings that I believe are being dealt with in the most thoughtful landscape designs today - beyond the programmatic and instrumental - are the following: 1) Ideas of order. 2) Ideas of nature including a critique of past views as provoked by knowledge of ecology. 3) Ideas about the arrangement of cities and thereby society and its desires (as well as needs). 4) Ideas about the medium as an expressive one (the landscape as medium) revealing something about our methods and its processes. 5) Considerations about the history of art and landscape design, and the history of places - their archaeology."

68; Wilk, 2021). Figures like Jean Jacques Rousseau (1712-1778) contributed to romantic interpretations associated with nature (Ruff, 2015, p. 110). However, as evidenced by Wilk (2021, pp. 104-119) and Jellicoe (in Jellicoe and Jellicoe, 1975, p. 201), the visual influence of picturesque aesthetics allowed natural spaces, previously perceived as wilderness, to be confidently, and sometimes deceptively, manipulated, planned, or enhanced using diverse methods (also see Ruff, 2015, pp. 110-115; Herrington, 2013, p. 32). These aesthetic, spatial agendas were represented through perspectival or atmospheric techniques, such as the use of vanishing points to create depth or the manipulation of light and shadow to evoke mood (Wilk, 2021, p. 84; Corner, 2014, p. 137). According to Herrington (2013, pp. 74-75), Wilk (2021, p. 71), and others, like Ruff (2015, pp. 26-29) and Corner (2014, p. 67, 177), gardens have been regarded as an 'aesthetic entity' since the 15th century through such reciprocal exchanges between Arcadian ideas and garden concepts.

The transformative power of Arcadian aesthetics, the profound ability of the landscape as an aesthetic entity to significantly alter the perception of space, was a motivating force in the conception of Central Park in New York (Howett, 1987). Ruff expressed this influence:

> In his report to the commissioners, Olmsted explained that creating Central Park was not simply to make a place of amusement or gratification of curiosity or for gaining knowledge. The main object and justification was to produce a certain influence in the minds of people (Ruff, 2015, p. 158, 155-160).

The proposal relied on explicit, verbal and visual communication, conveying how the design proposal could change the spatial and temporal experience of the site. Wilk (2021, p. 130) provides evidence of how Frederick Law Olmsted and Calvert Vaux *juxtaposed* before-photographs and after-drawing to influence how their designs were to change space and the experience of the park's site. Written on their design proposal, site photographs were shown as "present outlines" as the *existing* conditions, which laypeople could understand, and designs were shown as "effect proposed" through drawings. Wilk argues (2021, pp. 128-131) that the sheer 'contrast' between Central Park's initial unsanitary site condition and the proposed beauty and peace in their drawings may have been perceived as a progressive strategy. This comparison method to show the existing site condition was a strategy previously used by Humphry Repton (1752-1818); his before and after drawings were both representative of balance and soothing spaces that could be 'improved' through intervention, through design (Waldheim and Hansen, 2015, pp. 58-61; Wilk, 2021, pp. 108-109; Corner, 2014, pp. 179-180).

Ultimately, spatial visualization and projection methods, such as paintings, maps, collages, software and the standard survey-analysis-design process are essential tools for understanding space and proposing spatial solutions. Landscape architects and other disciplines are pivotal in shaping the lived experiences within uncertain spaces, regions, rural areas and settlements, urban realms, and unknown sites. Their unique position allows them to align design intentions with, rather than against, the natural and social orders and structures embedded in sites. This alignment is a crucial aspect for effectively communicating the various manifestations, and imaginative, subjective, and experiential aspects of site-specific perceptual measures and orders throughout the design process of landscape projects. Jackson (1984, pp. 1-43, 147) characterized the landscape as a 'primordial idea,' influenced by concepts that are realized either as vernacular or political order, the former seeking harmony and survival, and the latter seeking definition, certainty and political boundaries through various means.

The communication of *spatial order* is essential in topological and topographical surveys, which are invested in site-specific information about various natural and artificial conditions. However, communicating these complexities can be reductive in the conventional representational methods of plans, sections, and renderings. Argued in this thesis, this communication appears wholly scrambled in Midjourney, as the platform projects its preconceived spatial measures and orders, intrinsic to its text-to-image generation model, as 'momentarily finalized' ideation assumptions. Chapter Four illustrates how the hyperrealistic images created by using contextual prompts can contradict lived experiences while evoking illusions of familiarity; the renderings *imply* that topological and topographical site-specificities have already been accounted for in conveying the context of the sites under inquiry. In contrast, collage as an ideational medium fosters creative uncertainty by including vividly imaginative and subjective personal reflections on site conditions and lived experiences. Collage provides a more temporally open workspace for exploring spatial measures and contextual site conditions and orders. The landscape architectural design process is a key aspect of this exploration, and the open-ended question is how to visually and verbally ground these interconnected ideation measures to the context of inquiry and determine their role in one's imagination about space and landscape sites.

Grounding design processes toward reimagining meaningful landscape architectural projects today presents significant challenges. Questions in contemporary landscape architecture concern competing priorities, combating mega-scale issues such as climate change, and resolving social-political problems in the built multi-cultural environment. Such relevant criteria often initiate a common ground for defining new design approaches and ideas. Treib (1995) forwarded the idea of communicating 'pleasure' as a

stronger tie between what landscapes can do. Pleasure, described as 'affection' by Tuan (1979, p. 412) ties people to places or how they see space topologically and topographically (also see Berleant, 2018, pp. 11-19; 1993, pp. 230-231; 1992, p. 4). Hence, rather than homogenizing, reducing, and flattening what is desired as convincing information and solutions or what software illustrates as relevant, now misleadingly oversimplified by AI engines such as Midjourney, it is crucial to focus on complexities and contradictions and reveal their hidden networks for meaningful communication in landscape architecture.

Focusing on how site-specific experiential and subjective perceptions influence objective spatial interpretation criteria might be a robust pathway to strengthen survey, analysis, and design communications across analogue, digital, and AI-driven ideation modes.

Landscape Measures

1.4.1 Positivistic Spatial Measures

The positivistic approach to spatial survey and analysis with its focus on seeking certainty through objective Cartesian measures and methods, has a rich historical context. Geddes's regional survey in the early 20th century sought to understand the evolution of human settlements and planning for the transition and importance of rural areas to towns. However, it was Ian McHarg's *Design with Nature* (1969) that played a crucial role in establishing the positivistic approach to site surveys, which is significant in the context of environmental warnings, such as the 1956 work of Revelle and Suess**.** This approach, which foregrounds the *comparison* and *correlation* of objective data, became the preferred method for conducting "land-use planning and suitability analysis," which are essentially large-scale decision-making processes in regional planning (Corner, 2014, p. 25). Furthermore, its comparative analytic method, which also defines spatial measures and priorities or what counts as valuable data and method, was applied to the conventionally known survey, analysis, and design process in various realms.

The Cartesian approach to understanding space is significant not only for its insights but also for its ability to foster a common language, idea, and measure among different disciplines engaged in the built environment (Corner and MacLean, 1996). This interdisciplinary connection, spanning private businesses, governmental agencies, and NGOs, is essential for understanding site contexts before any design intervention. Cartesian thinking has inspired designers to imagine and create spaces for human pleasure in landscape architectural projects of different scales (Corner, 2014, pp. 79-81; Wilk, 2021, pp. 148-163). Initially, regional site surveys sought to understand topological and topographical relationships between

site-specific ideas, conveying an evolutionary view of the past and present (Meller, 2005; Geddes, 1915). The purpose was to predict or project possible futures by studying site-specificities and land use. The Cartesian approach to spatial representation framed regional ideas into explicit measures, units, and documents conveyable in plans, temporally reducing the site's topological and topographical conditions to geometrically defined symbols and elements.

Cartesian maps include ostensibly objective data, essentially reflecting a positivistic measure. Corner argued that they cannot include and communicate how eidetic, bodily-engaged spatial processes and perceptions enact spatial dwelling and habits (Corner and MacLean, 1996, pp. 28-34; Corner, 2014, pp. 54-56, 166). The Cartesian reading of space defines deterministic measures and processes that may ignore the intertwining dynamic between humans, cultures, and time, further contributing to the objectification of space, what Harvey described as "a Utopianism of fixed spatial form" or "spatial determinism" (Corner, 2014, p. 25, p. 210; Harvey, 1996, p. 419).

Corner's writings on imagination and representation, building on McHarg's works, reveal site- or condition-relevant spatial measures. They demonstrate how landscape architecture can significantly enhance human-nature dynamics. In this framework, landscape architecture becomes a medium for perceiving and conceiving spatial *aesthetics* as a 'dynamic' and evolving interplay of spatial 'processes' and humanistic 'relationships' shaped over 'time' (See Harvey, 1996, p. 419; Corner, 2014, p. 210). Corner's reference to a hermeneutic circle underscores the need to uncover more pluralistic and tangible discovery measures to understand the landscape as a medium with potent agency. This highlights what landscapes are and how landscape architects can enhance the lived experiences of sites, including humans and non-humans (Corner, 2014, p. 19, 100). His eidetic collages serve as a reminder of these relationships, reframing landscapes as a rich, potent medium that can synthesize and emphasize the distinction between surveyable measures, humanistic concepts and constructs, and analytical methods.

Ideas behind landscape spaces delve deep into human relationships with natural spaces throughout history; thus, the landscape can be seen as a 'primordial idea' (Jackson, 1984, p. 147), a way of seeing space through the lens of landscape aesthetics (Howett, 1987, pp. 1-12; Spirn, 1988, pp. 108-126; Olin, 1988, pp. 149-168). Landscape spaces encompass all human interventions upon the land. They can be openly explored through various spatial discovery measures, which are site-specific and measurable in terms of units and qualities (Corner and MacLean, 1996, pp. 31-33).

1.4.2 Humanistic Spatial Measures

James Corner's concept of landscape imagination, as evident in *Taking Measures Across the American Landscape* (Corner and MacLean, 1996, p. 32), is a pursuit of spatial 'discovery measures'. These measures involve a distinctive approach to perceiving space through the context of landscapes. His definition of landscapes extend beyond designed gardens to encompass natural conditions and human interventions on land, such as dams, windmills, and agricultural sites. These examples illustrate the application of Cartesian, and often utilitarian spatial measures to sites. Corner (1996) challenges how the conception of these spatial discovery measures begin with how one perceives and represents context.

Corner's writings and collages (1996; 2014) reflect a deeply humanistic approach to site surveys and landscape design processes. He believes that accurate perceptions and communication of spatial discovery measures can extend landscape imagination to its agency, denoting what landscapes are and do. With its focus on human experience, this approach provides a humanistic and realistic lens for site evaluations and interventions, fostering a sense of connection and empathy. Landscapes accumulate and embody different spatial interpretation measures, traceable in cultural, social, and historical orders conditioning the lived experiences (Corner, 2014, p. 100, 241-243). His works (1996; 2014) add a subjective, bodily-engaged, experiential dimension to the conventional design process. Significantly, his 1996 collages, visual representations of his ideas and experiences, are a key focus, as they vividly depict lived, sensory, and personal experiences of interacting with landscape sites.

Other scholars such as Tuan (1979), Jackson (1984), Jellicoe (1983), Howett (1987), Spirn (1988), Treib (1995), Herrington (2006; 2013), Cureton (2016), and Wilk (2021) have also investigated various experiential and bodily-engaged aesthetic discovery measures as communicated in landscape architectural projects. Their work, which has significantly contributed to the study of landscape agency, focusing on both humanistic (social, political, cultural) and more immediate spatial and temporal aspects of landscape ideation, creation, and interpretation, is important for a comprehensive understanding of landscape architecture and design.

Corner's focus on landscape imagination views the landscape as a medium that continuously evokes and embodies various imaginative and representational measures and orders. This synthesis between aesthetics and utility offers a distinctive framework to explore, verbally and visually articulate, eidetic spatial measures communicated across the survey, analysis, and design stages. His framework contributes to creatively grounded readings of space and abstract landscape architectural representation methods like

eidetic collages (see Figures 1.1–1.3 on p. 33). His interpretations of landscape can be seen as a continuation of the work of those who wrote about the agency of space after World War II, which influenced theories on landscape agency in the discipline. This continuity provides a sense of historical connection and context for Corner's work.

1.5 Landscape Agency

The non-Cartesian philosophical approaches to landscape architecture after the 1990s involve creative interpretations of space (e.g. Parc de la Villette, Paris, Bernard Tschumi Architects, 1982-1998; Schouwburgplein, Rotterdam, West 8, 1996). These more emotion-based interpretations emerged as critiques of rational conceptions of space while building upon and enhancing McHarg's site-nuanced approaches, emphasizing a deeper focus on the temporally nuanced perceptions of sites and their lived experiences. They can be rooted in philosophical writings on space, such as Henri Lefebvre's *The Production of Space* (1974), or more radical interpretations of space that go against social constructs, such as the avant-garde groups the Situationist International (SI) in the 1950s and 1960s and Superstudio in the 1960s and 1970s. These philosophical and artistic approaches have a rich history and concern studies on spatial aesthetics and agency or how humans and space interact (See Leach, 1997). These avant-garde works are significant. They distorted the consensus of capitalist space, conceived and communicated as maps by representing space through collage as spatial fragmentation and mental wandering or psychogeography (Sadler, 1998; 2005). Similarly, in *Townscape* (1961), Gordon Cullen wrote about the connections between spatial experiences enhanced by 'serial visions' in cities. The common ground here is *flânuer*, which means walker or wanderer in French and finding practical, bodily-engaged spatial information from site experiences.

Theories on landscape aesthetics after the 1980s challenge the consensus on landscape agency — what landscapes are and do to space, and vice versa. An analysis of the literature review suggests that recent critiques point out the social and temporal agency of landscape architectural projects; how landscape projects communicate ideas of time and perceptions of nature as perceived by individuals and collectives. Their approaches to landscape architecture offer spatial measures or entry points to envisioning rich spatial interpretations.

In this regard, Corner (2014; 1996) and Cureton (2016) have written about how landscape representational tools (instruments) denote spatial measures (units), emphasizing their 'influence' and

'impact' as a way to examine the implied *order* or what is implicitly prioritized or conceived as an ideational order in design media. They suggest that the medium of collage may contribute to the *survey* stage and enhance the communication of order, relevance, and accuracy of spatial measures and criteria within subsequent analysis and design processes (Corner, 2000; Cureton, 2016, pp. 103-109, see Schunk, 2018). The accuracy of communication is critical because landscape architects, conscious of the ideas and processes involved in their work, seek to elevate previous orders, site interpretations and experiences.

Reviewing collage images through a broader lens of landscape agency and meaning helps to better understand how to navigate image juxtaposition as a spatial survey method. These criteria have gained prominence with the non-Cartesian and humanist critiques of space. Three broad and overlapping trajectories exist in studying landscape meaning by seeing landscape as a medium rich in symbols and connotations (Lorch, 2002; Corner, 2014; Wilk, 2021; Herrington, 2013). These trajectories include seeing landscape as an image, as a coded medium, and as a medium with social agency, the latter aligning with Corner's approach to creating and interpreting eidetic spatial measures and collages. The tripartite trajectory can provide insight into analyzing eidetic collages and Midjourney's enigmatic approach to transforming descriptive ideas into visual representations.

1.5.1 Three Trajectories

The first trajectory revolves around the representation of landscapes through images, with landscape paintings serving as the hallmark and origin of 'static' depictions of landscapes (Townsend, 1997, pp. 365-378). Wilk documented several paintings from 15th to 17th-century Europe, featuring linear perspectives of gardens in the foreground and atmospheric perspectives of the context in the background, projecting ideas of taste, power, control, and status, as seen in *Annunciation Painting* by Leonardo de Vinci (1475) (Wilk, 2021, pp. 74-77; Ruff, 2015). During the Enlightenment in the 18th century, ideas of the beautiful, picturesque, and sublime played a dominant role in landscape paintings, employing various atmospheric perspectives and composition techniques to frame Arcadian ideas of beauty (Wilk, 2021; Jellicoe and Jellicoe, 1975, ed. 1995, pp. 201-210). Post-Enlightenment landscape paintings utilized atmospheric perspective techniques to convey human control over wilderness while framing how the imagination perceives beauty in nature (Wilk, 2021, pp. 98-103). Similarly, picturesque gardens, and later, romantic gardens, framed the desired aesthetic experience of nature by blurring the border between the concept or design agenda and the context (Jellicoe and Jellicoe, 1975, p. 223, Ruff, 2015, pp. 109-116; Hunt and

Willis, 1988). In this context, it is crucial to recognize the audience's role in perceiving various notions of beauty, including the ugly, uncanny, disgust, melancholy, and fear. These perceptions play an important role in collage-making and reading. Notably, they actively shape how Midjourney AI blurs contextual conditions and generates landscape architectural images.

Herrington (2006, p. 26) suggests that the portrayal of "artifacts that would be deemed unsightly or even ugly …" or "… unfamiliar" as an aesthetic experience stems from picturesque aesthetics. Like Chinese paintings (Jellicoe and Jellicoe, 1995, pp. 222-231), picturesque painting followed non-linear, atmospheric perspective techniques. In both examples, however, the static nature of perspectival images often presents a fixed spatial conception, promoting a consensus in how space is perceived. Cubism challenged this notion by introducing dynamic and distorted representations of perspectival spatial order, challenging the traditional understanding of art (Greenberg, 1959, ed. 1961). The disruptive nature of spatial fragmentation may prompt viewers to perceive subjective, experiential, and multi-sensory qualities within the medium, intensifying communication and precision, as seen in Picasso's portrayal of fear in *Guernica* of 1937 (Clark, 1999; 2013). Similarly, the Situationist International (SI) disrupted the order-implying relationships of conventional maps, as seen in their collage *The Naked City* (1957). This work challenges the hegemony of social order implied in the map of Paris (Sadler, 1998, pp. 12-21; de Zegher and Wigley, 2002; Debord, 1967, trans. by Knabb, 2014).

The second trajectory regards landscapes as coded texts, in which landscape designers interpret projects through intentional 'reading' or they decode spaces as Lorch suggests (Conzen, 1990, p. 3; Lorch, 2002). The shift from interpreting static images of landscapes to instrumentally coding the landscape design with deductible signs, symbols, and semantics is a significant evolution. This shift is believed to have been influenced by the three post-structural ideas: hermeneutics, phenomenology, and deconstruction (Corner, 2014, pp. 351-352). Lynch (1960), Jacobs (1961), Meinig (1979), Alexander (1979), Venturi (1977), Rowe and Koetter (1978), and Jackson (1984) utilized the second approach known as the 'post-modern' view in Lorch (2002).[10] Olin's writings on landscape as an abstraction of nature (1988), Howett's writings on symbols and semiotics (1987), and Spirn's writings on ecological cities, spatial dialogue, and landscape

[10] The spatial fragmentation and the interpretation of space through signs and symbols were instrumental in developing post-modernism. This movement aimed to blend elements from modern and traditional urban environments. In their book *Collage City* (1978), Rowe and Koetter played a pivotal role in shaping our understanding of a utopian middle ground between old and new cities. Their work contributed to conceptualizing post-modern urban spaces to "enjoy utopian poetics without the need to suffer from utopian politics" (Khachatryan, 2020; Rowe and Koetter, 1978, p. 125). These ideas are essentially an architectural and planning conception of urban space that challenged the authority imposed by the International Style advocated by modernists.

literacy (1984; 1988; 2006) seem to operate in the late stages of the decoding approach and the early stages of the third approach, which takes a pragmatic position and regards landscape architecture as a medium with agency, focusing on what landscape designs can do.

The third trajectory may have facilitated seeing design agency (influence) with considerations of social-political-environmental impact on people's lives. Mitchell's quote, "landscape circulates as a medium of exchange, a site of the visual appropriation, a focus for the formation of identity", in his *Landscape and Power* (1994, p. 5) explicitly suggests a thread that confirms landscape as a medium that could influence people's life qualities. This understanding underscores the profound influence of landscape design on the social, political, and environmental fabric of our lives. In "Must Landscape Mean?" (1995), Treib emphasizes the role of pleasure in conceiving and perceiving significance in landscape projects. He builds on Olin's earlier paper, "Form, Meaning, and Expression in Landscape Architecture" (1988), which advocated exploring the affordances of nature as a means to achieve richer landscape expressions through design. Treib's paper (1995) questions those who seek to exaggerate the significance of their designs through over-rationalizing spatial metaphors, which he names neoarchaic, zeitgeist, genius loci, vernacular, didactic, and theme garden.[11] In supporting dwelling, being, and living in landscape projects, Treib suggested that close-encounter sensations can read and lead the design process of landscape architecture.

Writings such as Treib's marked a clear leap from the "conscious mental rationalization" of "mixed metaphors" forwarded by the process/code-based approach, shifting instead to the pursuit of pleasure, a subjective yet vivid, multi-sensory experiential quality to create significant designs (Treib, 1995, p. 59; See Olin, 1988). In Treib's thinking, pleasure can propel seeing the landscape as a medium with potent agency (Treib, 1995; also see 'seeing landscapes as landscapes' in Herrington, 2013, p. 68; Moore, 2009; Eaton, 1997).

Designers should exercise caution when generating landscape renderings based on reductive understandings of emotions such as pleasure. It is crucial to be aware that fixed representations of spatial

[11] While the neoarchaic design approach refers to instrumentally referencing historical ideas and elements (Treib, 1995, p. 49), landscape designers and artists can share the zeitgeist if they produce works "deemed illustrative of the spirit of our times" (Treib, 1995, p. 51). Genius loci, or the genius of the place, refers to "… a means of rooting landscape design in a particular locale" or revealing "the particularities of its place as well as the profundity of the garden's ideas" (Treib, 1995, p. 50). The vernacular landscape is "a rich source of materials and forms" and is different from genius loci in that the latter is "culturized and the selections suave" (Treib, 1995, p. 52). The didactic approach indicates "constructed meaning" (Treib, 1995, p. 53), and a theme garden, like a 'rose garden' or 'Disneyland,' "constitutes a perceptually apparent idea used to fashion the garden's form" (Treib, 1995, p. 53).

emotions can distort design information, as evident in hyperrealistic renderings, including those generated by Midjourney using prompts like 'beauty' and other spatial connotations of 'pleasure' in landscape architecture, such as green, happy, and arcadian. Word-to-image AI engines such as Midjourney recognize the priority and the influence of emotion on perception, complicating the accuracy of spatial communication when conveying landscape ideas rich in temporal qualities.[12]

Generating alternative, emotionally-charged interpretations of time and perception of space as antidotes to objective spatial methods has a long history in several branches of knowledge.[13] The appreciation of frozen images of time and perception, like paintings of the picturesque or sublime, goes back to the Enlightenment in the 17th and 18th centuries (Corner, 2014, p. 177; Jellicoe and Jellicoe, 1975, p. 201). However, in the 20th century, ideas such as being, dasein, and dwelling in Heidegger's *Being and Time* (1927) surfaced in architectural texts such as *Genius Loci: Towards a Phenomenology of Architecture* (1979) by the Norwegian architect Christian Norberg-Schultz; *Critique of Everyday Life* (1947, ed. 1991) by the French philosopher Henri Lefebvre; the article "Space and place: humanistic perspective," (1979) and the book *Space and Place: The Perspective of Experience* (1977, ed. 2001) by Yi-Fu Tuan. This historical context enriches our understanding of the evolution of spatial perceptions.

The works mentioned above, along with those emphasizing the historical significance of landscape designs, including the writings of John Dixon Hunt (2000, 2002, 2004), influenced James Corner's writings on spatial agency in landscape architectural projects, highlighting their embodiment of various notions of *spatial order* (Corner, 2014, p. 10, 210, 228, 341).[14] A contextual understanding of spatial order signifies a multifaceted relationship between site, place, people, and order, transcending traditional notions of static

[12] Henri Bergson's exploration of duration in *Matter and Memory* (1896) highlights the impact of time perception — emotions of and through time called temporality — on metaphysical consciousness. Similarly, philosophers like Husserl (1900; 1913) and Heidegger (1927) prioritize emotion and temporality over analytical concepts, emphasizing a phenomenological perspective to ontological ideas. This emphasis on the influence of emotions on perception is further examined through 'affect theory' by Massumi (2002; 2017), and earlier in C. G. Jung's thinking-feeling and sensing-intuition continuums in *Psychological Types* (1921, tr. 1971, p. 307).

[13] Corner wrote (1999; 2014, pp. 210-211): "Through such urbanists as Banham, Edward Soja, David Harvey, Koolhaas, and Bernard Tschumi, anthropologists such as Marc Augé, or philosophers such as Henri Lefebvre or Deleuze, it is becoming clearer to architects and planners that 'space' is more complex and dynamic than previous formal models allowed. Ideas about spatiality are moving away from physical objects and forms toward the variety of territorial, political, and psychological social processes that flow through space. The *interrelationships* amongst things in space, as well as the *effects* that are produced through such dynamic interactions, are becoming of greater significance for intervening in urban landscapes than the solely compositional arrangement of objects and surfaces."

[14] Furthermore, as Hirsch notes, Corner's educational background in landscape architecture and urban planning, particularly "his interest during the 1980s in people, such as Richard Rogers, Edmund Bacon, Colin Rowe, Aldo Rossi, ..." played a role in framing his ideas regarding the agency of landscape architecture (Hirsch in Corner, 2014, p. 28).

or deterministic spatial arrangement (Harvey, 1996, p. 419; Lefebvre, 1974, p. 9. 94). This is a key concept in understanding the evolution of spatial perceptions in landscape architecture. It refers to the dynamic and complex ways in which space is organized and experienced, influenced by cultural, social, and environmental factors. Corner's 1996 text and collages explore these notions by intentionally projecting and synthesizing experiential perceptions of sites with spatial measures conveyed through conventional representational techniques.

For Corner (in Corner and MacLean, 1996), collage seems to enact an ideational zone, a space that is not predetermined or fixed. This concept of 'indeterministic space' refers to a space that is open to multiple interpretations and possibilities, allowing for the exploration of diverse design ideas. It serves as a platform to plot interpretational possibilities, emphasizing them as site-specific multi-scale and multi-sensory dynamics between nature and people. In this context, collage serves as a tool for exploring and representing the dynamic and multi-faceted nature of spatial relationships in landscape design.

1.5.2 James Corner

Corner's writings on collage investigate *site-specific* concepts of time and perceptions of space as imaginative discovery measures. These measures aid in understanding landscape aesthetics and agency, as well as the imagination of landscapes. In his book, *Taking Measures Across the American Landscape* (1996), co-authored with Alex MacLean, Corner explores the Cartesian spatial measure of the Jeffersonian grid in the US and ancient astronomical methods of observing and intervening in space. His collages demonstrate the innovative potential of finding pluralistic and eidetic spatial discovery measures and constructs, which "… effectively bind individuals to a collective" and is "… more an unfolding spatiality than surface appearance, more poetic property than the delineation of immediate real estate" (Corner, 2014, p. 247). This concept of 'eidetic constructs' is a key aspect of his work, defining landscape in its speculative and demonstrative mode. In "Representation and Landscape: Drawing and Making in the Landscape Medium" (1992), he explicitly refers to collage or plotting, as a mindset that can bring different Cartesian and non-Cartesian ideas together. He writes:

> The experience of landscape space is never simply and alone an aesthetic one but is more deeply experienced as a lived-upon topological field, a highly situated network of relationships and associations that is perhaps best represented as a geographical map of collagic dimensions (Corner, 1992, p. 248; 2014, pp. 166-167).

Many interpret Corner's writings as a thought-provoking critique of the scientific atomization of landscape architecture that "devolved to simplistic binaries (i.e., art v. science, city v. landscape, etc.)" (Hirsch in Corner, 2014, p. 18). These binaries are overly simplistic and fail to capture the complexity and interconnectedness of landscapes. This critique has significant implications for the field, challenging the hyper-analytic axonometric view, often associated with McHarg's sieve map method, which separates landscapes like gardens, parks, open spaces, and regions as an autonomous entity and a realm different from urban space (Hirsch's preface in Corner, 2014, pp. 13-37; Spirn, 1984; also see John-Alder, 2019; Bunster-Ossa, 2014).[15]

Corner's work, as he noted, is a continuation of McHarg's but with a unique aim to bring the poetic qualities of spaces in close connection with their ecological functions (Hirsch in Corner, 2014, pp. 18-23). Corner views landscape architecture as a catalytic dialogical agent that bridges between beauty and function, art and science, and metaphorical and ecological functions. It is a key element in igniting human imagination through their place-specific cultures (Corner, 2014, p. 42, 47, 162). His concept of dialogical agency, which can be understood as a form of spatial dialogue that encourages interaction and interpretation, as well as 'discovery measures', underscores the importance of imaginative agency in landscape architecture (Corner, 2014, p. 162, 234).

Corner's reference to design agency might seem out of place and abrupt. However, he did not leap from a 'vacuum' empty of theoretical thoughts (Hirsch in Corner, 2014, pp. 15-18). Corner's three terms describing landscape representation — emancipation, ideogram plotting, and measure,[16] highlight the imaginative agency of representational tools as vehicles for conveying designers' quality of thoughts.

Corner's theoretical motivation and interest in "landscape urbanism" stemmed from the lack of meaning and fresh criticism in the discipline. He wrote of his "frustration at the continued marginalization of landscape as the city's antidote, respite or 'salve,' and at misguided ignorance of landscape architecture as integral to, effective of, and resultant from the process of modernization and urbanization" (Hirsch in

[15] Hirsch notes that the discipline of landscape architecture had become stagnant, to some extent, between land art and ecology in the 1980s — during and after McHarg's time. The book, *The Granite Garden* (1984), by Anne Whiston Spirn, the Chair of the Department of Landscape Architecture and Regional Planning at the University of Pennsylvania following McHarg (1986-1994), aligns with McHarg's method [James Corner graduated with a Master's degree in Landscape Architecture, and an Urban Design Certificate from the University of Pennsylvania in 1986]. The book emphasized the need for unfolding conversations about "human dwelling" [and nature in cities] rather than separating nature from cities (Spirn, 1984; 2006). Corner associates the separation of art and science as the cultural impact inherited from the Enlightenment (Corner, 2014).

[16] These keywords were previously explained in the preface of this thesis.

Corner, 2014, p. 28). As Corner argued in his article "Sounding the Depth - Origins, Theory, and Representation" (1990):

> The contemporary crisis of meaning is due in large part to the epistemological break with tradition during the eighteenth century, and that modern technological thinking works merely to perpetuate an excessively 'hard' world in which culture and the landscape imagination remain difficult to reconcile (Corner, 1990 in Corner, 2014, p. 49).

These ideas might have targeted McHarg's followers, who took ecological science "as the primary authority for determining the 'natural' (and therefore correct) way to design landscapes" (Spirn, 2006, p. 46). They appropriated McHarg's *method* without contributing to the discipline critically (Hirsch in Corner, 2014, pp. 17- 25). These highlight two essential interests for Corner: his critique of architectural representation, particularly its reliance on positivistic conceptions of space and time, and its reductive expression of nature (Corner, 1999, p. 14, 23; 2014, pp. 54-55). Based on "the autonomous instrumentality of modern science," the scientific approach to architectural representation presents space by "mathematical precision and empirical clarity" and not through the "ambiguous indeterminacy of symbolic, cosmological representation" (Corner, 2014, p. 54) experienced in landscape sites. This break from experience through representation separated "human life and nature" and, to use Corner's quotation of Husserl, "reduced nature to a mathematical manifold' (Corner, 2014, p. 55).

Corner's interpretation of landscape function indicates the interdisciplinary nature of his work, which focuses on the landscape's influence on the imagination of space. Hirsch argues, "There is little mention of what landscape is or what it means; the focus is on what landscape does, and in its efficacy and scope of influence" (Hirsch in Corner, 2014, p. 19; Corner, 2014, p. 111; 1999, pp. 1-2). Corner (2014, pp. 113-114) hints at several landscape agencies, such as: "innovative cultural agent", a concept that refers to the role of landscape in shaping and reflecting cultural innovation and change, "recovering landscape", and "challenge cultural habit and convention". He also includes "engaged dialogue … dynamic forces of change", "bridging the instrumental and expressive potentials …", "bridging the gap between artistic expression and ecological techniques", and "agents of creativity", aiming at unlearning "the devolved understanding and shaping of landscape - as a 'scenic object, a subjugated resource, or a scientific ecosystem'" (Corner, 2014, pp. 19-20, p. 26, 32, 116, 126, 257, pp. 310-311, 353; Corner, 1997, pp. 80-108). These terms resonate with the writings of Howett (1987), Olin (1988), Spirn (1988), and Treib (1995) on experiential interpretations of landscape, nature, and time. As such, Corner's writings between 1990-2010 attempt to explicitly define landscape architecture. They remain imaginative and open-ended in

scope, inviting further exploration and discovery, but focus on fluctuating measures underpinning Cartesian and non-Cartesian values exchanged between the physical space and the designer's representation.

Corner's divergence from hyper-analytic Cartesian approaches to space is theoretical and has practical implications. His focus on spatial 'discovery measures' (Corner and MacLean, 1996, p. 32), cultural perception, place-making, and landscape architectural agency as a medium sensitive to time explains his approach. While landscape collages combine various discovery measures across scales and times, a sieve map representation separates familiar spaces from their context and, like an 'x-ray' image, dissects single sites into several other layers in a homogeneous medium (Cureton, 2016, p. 26, pp. 103-109; McHarg, 1969, ed. 1995, pp. 29-40, 57-63, 105-107). Sieve maps and collages serve as complementary tools for survey and analysis. Sieve maps emphasize Cartesian analytics, while collages focus more on capturing the accumulative temporal qualities of site perceptions. Corner's elusive definitions of landscape architecture are based on its experiential and temporal agency underpinning understandings of time, space and place, within representational media.

Corner's emphasis on time and spatial perception transforms an understanding of landscapes, defining them as "the inevitable result of cultural interpretation and the accumulation of representational sediments over time …" (Corner, 2014, p. 161). He underscores the transformative power of the evolving perception of landscape aesthetics in shaping meaningful narratives, serving as an essential aspect of what landscapes do (Corner, 2014, p. 70). However, he also implies that although humans can produce various landscape spaces, a landscape's capacity, including its 'temporality, materiality, and spatiality,' renders landscape interpretations 'irreducible' to visual representations (Corner, 2014, p. 165). Furthermore, "its sensory richness, its ambulatory experience, its temporality, and its capacity to imbue a specific place with irreproducible charm and quality" makes the imagination and interpretation of landscape spaces very different from how we perceive paintings or sculptures (Corner, 2014, pp. 8-9, 59, pp. 65-73). Landscapes evolve, and so do human responses to them. Corner writes, "Landscape is an ongoing medium of exchange, a medium that is embedded and evolved within the imaginative and material practices of different societies at different times" (Corner, 2014, p. 114). Humans resist the imposition or insistence of determined meanings. Paradoxically, as Corner adds, landscape spaces collect and accumulate new meanings with every new interpretation and representation over time (Corner, 2014, p. 138, 292). This recursive circuit fuels creative mappings he describes as drift, layering, gameboard, and rhizome (Corner,

2014, p. 214, pp. 213-230), which can enrich the depth of our understanding and possibilities of landscape spaces.

Corner's conviction that new representational methods, including technological tools, do not necessarily offer new "ideational process and enquiry" (Corner, 2014, p. 21; Wilk, 2021, p. 210-221; Cureton, 2016, p. 26, 79), and that images and ideas are realms generated by cultural constructs, hints at a social circuit. Social constructs reflect the imagination by different means; in turn, imagination echoes back to the physical world, motivating Corner to hermeneutically reflect on landscape agency through spatial measures and their representation. He does so through temporal mapping, an intentional juxtaposition or 'plotting' of site-specific experiential, spatial, and temporal-emotional measures. Corner refers to Gadamer's hermeneutics (Corner, 2014, p. 96) to breach the separation between the poetics of spaces and their representations. Moreover, the idea of criticism coming from "*within"* [author's italic] rather than "without," through "circumstantial actions — the building of critical landscapes" might have encouraged Corner to use collage (Hirsch in Corner, 2014, p. 16), which he called plotting in 1991 (1991, p. 162; Corner, 2014, p. 101, 191, pp. 213-214). In the preface for Corner's book, Hirsch explains:

> It is here in his essay on 'Critical Thinking' that Corner introduces the projective practice of 'plotting,' a critical drawing process, or the re-presentation of a given condition that, through interpretive and imaginative action, discloses 'previously unforeseen relationships' that provoke newly inscribed 'patterns for inhabitation in the landscape.' As a generative form or representation, these early remarks on plotting in the context of critical thinking provide a well-rounded base to understand Corner's fundamental motivations (Hirsch in Corner, 2014, p. 16).

Corner's eidetic collages or plotting intentionally employ subjective yet accessible, site-specific interpretations and visual connotations of landscape ideas and concepts to define space, stimulating interpretations about "the previously unforeseen relationships" before defining the landscape that occupies space. His eidetic collages temporally map site-specific interpretations by juxtaposing diverse spatial measures, including Cartesian fragments of maps and charts, with experiential and temporal measures as fragments of lived experiences.

1.5.3 Eidetic collages of James Corner

Corner and MacLean's unique approach, as showcased in their book *Taking Measures Across the American Landscape* (1996), significantly contributes to the understanding of spatial measures. In this book, the

authors explore how different spatial measures influence practices and individuals. Their exploration goes beyond the conventional means of measurement, incorporating social and historical ideas to decipher the underlying measures and methods behind the decision-making in changing the land. Based on first-hand experiences of sites, this experiential approach to space reflects how social, political, cultural, and historical interpretations act as central criteria for evaluating landscapes. Their emphasis on human experience fosters a sense of connection and empathy. Conventionally, landscapes are understood through maps, local site surveys, and questionnaires. Their work offers eidetic interpretative approaches to measuring such dynamic and interconnected spatial orders, showcasing complexities through aerial photographs of human practices and settlements of and through different times.

Corner and MacLean (1996) investigate the transformative power of spatial measures, exploring how different philosophical worldviews influence spatial interventions within the American landscape. Their examination of the discovery of eidetic and the analytical or Cartesian modes of spatial interpretation as 'instruments' that imply or enforce various orders underscores the profound impact of these measures on our understanding of space. Corner's use of collage to convey the interconnectedness of these metrics is not just a method but a significant contribution that further emphasizes their significance and transformative potential.

In her collage genealogy, Shields (2014, p. 6) situates Corner's representations being influenced by Constructivist methods that conveyed ideas of social order through mechanical, engineered, and intentional drawings.[17] Similar to those by Constructivists of early modernism between 1919 and 1934, Corner's landscape architectural collages feature line drawings and, like utopic visionaries of the mid-twentieth century, include photographs. His collages challenge the intersection of social, historical, vernacular, and geoengineering spatial measures and values to encourage situated, poetic, experiential, and temporal approaches to surveying and analyzing American landscapes.

Corner (1991; 1999, pp. 1-26; 2014) argues that how one perceives, measures, and represents space shapes the landscape's potential and influences its eidetic narratives, which evolve as memories of space and place. 'Eidetic narratives' refer to stories deeply ingrained in our memories and are often associated with specific spaces or places. Corner's collages and MacLean's aerial photographs propose that measures

[17] Constructivists wanted to inform and influence social structures through geometrical images and ideas (Shields, 2014, p. 65). For example, Vladimir Tatlin's proposition for the never-built Tatlin Tower in 1919-20 was an architectural space for the communist headquarters and, simultaneously, a symbolic commemoration of the utopian aspirations of the Russian Revolution (Gideon, 1941, ed. 2009).

of ‘control’ and ‘rule’ set in motion through the Land Ordinance two centuries earlier in the United States still inform the American psyche (Corner and MacLean, 1996). The Land Ordinance, enacted in 1785, established a system for surveying and dividing western lands (Corner and MacLean, 1996, p. 8)**.** Like the works of Constructivists, the Jeffersonian Land Ordinance and its grid were constructs meant to convey ideas of rationality and social order.[18] Nonetheless, the central premise of Corner and MacLean’s book is that spatial measures guide interpretation and behaviour, significantly influencing landscape designs.

Corner defines ‘landscape measure’ or ways of seeing landscape as the ‘synopsis,’ the summary of spatial dialogues or reciprocities between humans and environments (Corner and MacLean, 1996). These spatial dialogues can be seen in how we interact with our environment, such as the design of urban spaces, the planning of natural reserves, or the development of agricultural lands. This ‘synopsis’ is a comprehensive overview that encapsulates the complex interactions and interdependencies between humans and their environment**.** Corner’s ideas have been influenced by spatial dialogues argued by Spirn in the 1980s, the sieve mapping of McHarg in the 1970s, and the first explicit reference to the sieve-mapping or overlay technique by Jacqueline Tyrwhitt in the 1950s.[19] McHarg’s sieve-mapping method, a strategy to find correlating spatial measures, including potential conflicts, to inform land use planning, was well known to Corner. McHarg’s contribution to landscape architecture and regional planning involves finding correct, rational and analytical regional measures synergic with natural processes or, to use Corner’s words, pragmatic or suitable spatial ‘discovery measures’ (Corner and MacLean, 1996, p. 32). Corner’s search for eidetic landscape measures continues the works of the above figures. It echoes McHarg’s endeavours to find accurate methods to understand the land and place more thoroughly (Hirsch’s preface in Corner, 2014).

In discussing the idea of ‘synopsis’ in *Taking Measures Across the American Landscape* (1996), Corner concludes that whatever spatial dialogues and measures inform, as seen in the production of today’s maps or the ancient influence of the solar calendar on rituals and the orientation of cities, landscape spaces eventually overcome interpretational frameworks by adding yet more new interconnecting measures to the context. Hence, “Maps make visible what is otherwise invisible” (Corner and MacLean, 1996, p. 18). Spatial measures can result in exploiting the land and its inhabitants or evoke a reciprocal relationship

[18] “For Jefferson, measure was not only of technological and instrumental value but also of moral and social worth” (Corner and Maclean, 1996, p. 30).

[19] Tyrwhitt translated and reviewed ideas of regional surveying, initially discussed in the works of the Scottish sociologist, geographer, and urban planner Patrick Geddes (1854-1932).

between humans and the environment. Corner illustrated such reciprocal relationships through measures of 'fit' and 'faith' (Corner and MacLean, p. 121, 149). Consequently, any spatial measure is a lasting lens or construct by which one sees, understands, and later represents how a space is viewed and constructed.

From ancient settlements to contemporary spatial interventions, Corner concludes that spatial measures are critical to daily life, informing the psyche or ways of the mind. The dialogue between measure and land includes contextual understandings of space and time, adding temporal and zeitgeist variations to spatial measures. In the context of American landscapes, Corner believes that the gradual changes of spatial perception or measure that were once based on the structures of cosmogenic belief and later informed by natural forces were annihilated by the disruption of time and, subsequently, space (Corner and MacLean, 1996, pp. 4-5). In the U.S., this happened through the railroad, the telephone, and the Jeffersonian grid, creating a new spatial-mental order or way of seeing and interpreting space.

In *Taking Measures Across the American Landscape* (1996), the word 'synoptic' is frequently used, meaning 'a summary of a whole' (Unknown Author, n.d., Oxford Dictionary). This term is used in combination with other words, such as "synoptic perspective," "synoptic rationality," and "synoptic eye," relating measure with viewing and viewing with abstract perception or representation (Corner and MacLean, 1996, p. 15, 19).[20] The book also introduces the concept of 'aporia,' which means contradiction, and, in that context, the contradiction between what one expects and later achieves by imposing measures, which Corner calls 'illusions' of human order or 'dis-measure' (Corner and MacLean, 1996, p. xix, 25-37, 26). 'Dis-measure' refers to the unintended or negative consequences of spatial measure. As a relevant example of aporia from the book, Corner notes that the standard view expects suitable landscape design measures to bring goodness and good things. At the same time, the reality is that the American landscape is also a space that resulted in the production of fear or violence, a 'dis-measure' (Corner and MacLean, 1996, p. 26).

Corner's deduction that spatial measures are the bedrock of social and spatial potentials, influencing the process of "spatial discovery" (Corner and MacLean, 1996, p. 32), underscores the integral role of the imagination in this process. He suggests that when designs are guided by sound, grounded spatial measures within sites, the resulting spatial interpretation has the potential to foster social goodness. In this context, the measure becomes an extension of the site and the life of its inhabitants (Corner and

[20] Geddes used the word 'synoptic' as a way of holistic seeing: "The need for the synoptic concept of study of seeking to recognize and utilize all points of view–scientific, artistic, historic–and from them to interpret the course of the city's future evolution and possibilities" (Geddes, 1915, ed. By Tyrwhitt in 1949, p. vi).

MacLean, 1996, p. 36). Conversely, when spatial measures or values are 'detached,' the spatial outcome becomes an estranged space with unpredictable future consequences on the human psyche (Corner and MacLean, 1996, p. 22, 36). Spatial measures, as ideas based on reductive measures, lead to reductive outcomes. In contrast, spatial ideas based on situated speculation may envision site-specific and culture-specific measures, fostering 'poetic dialogues' with the land or site, a concept Corner attributes to Heidegger (Corner and MacLean, 1996, p. 34).[21]

Corner bases his understanding of measure on a tripartite notion that includes quantum, instrument, and aesthetics. These are reminiscent of McHarg's analytic vision concerning spatial criteria and units in regional planning, emphasizing spatial measure and rational-pragmatic method toward a correct or reasonable, suitable result.

The notion of measure is widely known as a discerning quantitative or qualitative factor. According to Corner, different measures ground the instruments by which they are generated. A 'centimeter' is a unit within the metric instrument, while melody notes are units of a musical instrument. Thus, it is the instrument, the means, that defines measurements. Landscapes contain different life forms and are, thus, more than instruments or objects. Landscape spaces add a third factor to the quantum-instrument dualism, which Corner calls the "ethical" influence, defining good and evil and correct and false relationships (Corner and MacLean, 1996, p. xviii). More importantly, as an instrument with various measures, the landscape is a human construct. Put differently, as Jackson (1984) and Corner (2014) argued, landscapes are created constructs echoing various vernacular, formal, political, social, and ethical orders and measures. These *interconnected* orders and measures underpin experiential and temporal specificities of different contexts, which, through a hermeneutic circle, evolve, signify, and shape the lived experiences within sites.

In describing American landscapes, Corner examines the influence of the Jeffersonian grid from 1785. Jefferson's adoption and application of Locke's ontology inspired the Grid Survey, which conceptualized the grid as the spatial embodiment of democracy and Jefferson's aspirational message (Ellis, 1997; Corner and MacLean, 1996, p. 8, 21, 30).[22] The grid allowed equal land distribution to become the implied message. Newcomers supported the grid as it may have made sense by all means and measures, quantitatively and ethically. However, as evident today, the equivocal grid has become a sign of

[21] "In poetry there takes place what all measuring is in the ground of its being" (Heidegger, 1971, p. 221). Heidegger's poetic approach to measure refers to the genius loci, a synoptic measure proposed in the writings of Alexander Pope in the 18th century.
[22] Jefferson's adoption of Locke's ideas on property ownership and governance, particularly the belief in the importance of individual liberty and property rights, influenced his approach to urban planning, and rural land division.

domination over nature, a space or medium to control the cost, and a measure for extracting resources. Hence, the hermeneutical circle between temporal qualities and contextual orders within sites, in this case, in American landscapes, evolves with and over time. Corner's 1996 writing and collages convey this elusive dynamic through eidetic spatial measures of land, rule, control, fit, and faith, which are subjective yet explicit criteria to engage with his collages and photomontages critically.

On several occasions, *Taking Measures Across the American Landscape* (1996) suggests the need for more creatively grounded surveying methods — site-relevant eidetic measuring instruments and units. The preface, written by the landscape architect Michael van Valkenburg and in text written by the British cultural geographer Denis Cosgrove, discuss the limits of distinct forms of media communicating landscape ideas, including how conventional aerial maps misrepresent complexities seen in aerial photographs. These authors suggest reading texts, captions, Alex MacLean's aerial photographs, and Corner's collages and photomontages to ethically or aesthetically understand spatial measures as a connected matter connoting ideas of space and time. Corner's focus and study on American landscapes forwards the following eidetic measures:

- *Measures of land* (p. 41): focusing on the grid from the Land Ordinance of 1785, also known as the Jeffersonian grid, a spatial idea to enact a social vision of democracy, morality, equal rights to the land, and ownership.
- *Measures of control* (p. 69): what humans do to control nature – dams, roads, agriculture, solar farms, dikes, windmills, pivot irrigators, and satellite surveillance.
- *Measures of rule* (p. 97): suggestive of "particular sequences of events," like parking lots, sports fields, road intersections, train turning circles, field fires, and agricultural fields.
- *Measures of fit* (p. 121): practices manifesting "reciprocity between occupant and environment," such as in dry farming, contour farming, spring line fields, and vernacular living.
- *Measures of faith* (p. 149): "reconcile[ing] the joys and stresses of life with the hopes and revelations of the human spirit," desert floor figures, ancient mounds, solar calendars, Chaco Canyon.

Corner's collages explore the relationships between highly articulated eidetic spatial measures, reflecting a human attitude toward space informed by time, culture, and technology. To illustrate these spatial attitudes (see Figures 1.1 – 1.3), Corner argues for 'plotting' or intentionally juxtaposing eidetic images indicative of interconnected spatial-temporal measures and orders intrinsically present within sites and their lived experiences.

Cartesian maps are critical to conventional survey, analysis, and design processes. However, in Corner's collages, which are essentially eidetic-Cartesian notation maps, the inclusion of measures and ideas of order that depict how people interact or interacted with space at different times supersedes the analytical, quantitative map-like characteristics, conveying a vital message. Corner's collages are more than just temporal mappings of image fragments. They convey spatial-temporal connotations of locations, relationships, ideas, methods or practices, transforming our understanding of space. These intentional collages imply a sense of spatial order, what space is about, through eidetic measures that enable their interpretations.

Corner's *The Landscape Imagination: Collected Essays of James Corner* (2014) proposes viewing landscapes as a medium that exchanges and accumulates various discovery measures over time. His collaboration with MacLean (1996) interpreted eidetic landscape measures by incorporating technological, social, historical, and ethical conceptions of space, which extend landscape imagination and representation to the lived experience on sites (Corner and MacLean, 1996, pp. 1-40). Through eidetic collages, one's imagination of Cartesian measures extends to structures like dams and windmills, while ancient measures extend to designs inspired by nature. The book suggests that landscape designers should integrate site-specific eidetic 'discovery measures' into their research on the sites. This approach enables an enhanced understanding of a site's unique experiential attributes and values without being confined by traditional Cartesian representational methods and measures. Corner facilitated an innovative and critical ideational approach that enriches spatial interpretations. He employs collage to survey and anchor eidetic perceptions to sites while verbally articulating qualitative measures to read and temporally analyze space and its representations in maps. This bodily-engaged approach to spatial imagination and representation deepens our understanding of exploring pluralistic yet site-specific landscape measures.

Figure 1.1 Hoover Dam

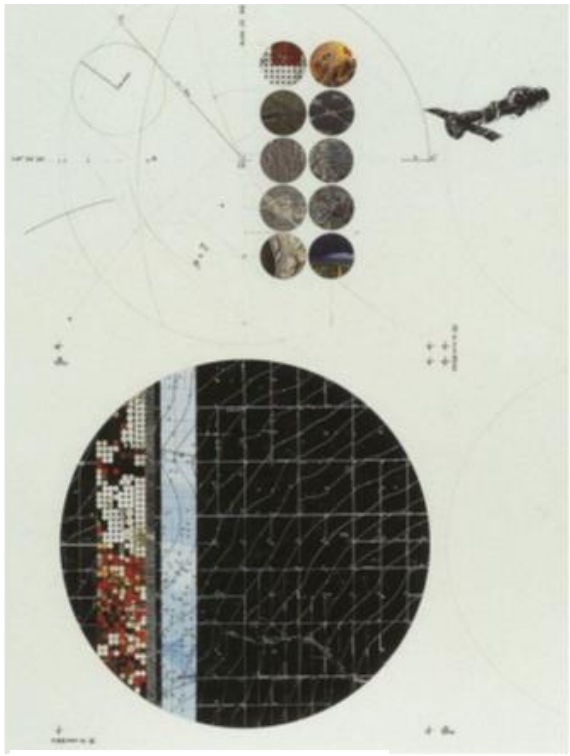

Figure 1.2 Pivot Irrigators

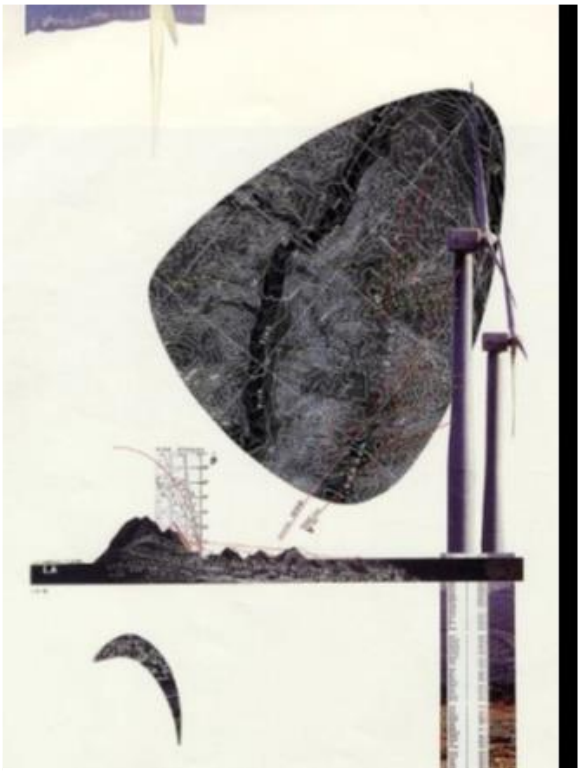

Figure 1.3 Windmill Topography

Collages by James Corner (1996). Yale University Press (82021)

1.6 Conclusion

Positivistic and humanistic philosophical approaches are not simply theoretical ideas in the landscape architectural design process. They play a significant role in site surveys and the subsequent ideational stages by shaping spatial conceptions and influencing design trajectories. Corner frames 'spatial discovery measures' as a hypothetical ideational criterion, synthesizing positivistic, Cartesian, humanistic, and temporal values. Their synthesis evokes eidetic measures, which are instrumental in conceiving and interpreting the specificity of landscape sites. The eidetic spatial measures in landscape architecture are not just products of time and culture, they extend our interpretations of landscape sites and concepts to experiences (Corner, 1999, pp. 6-8). Corner's collages represent this ideation zone, where fragments of positivist thinking like maps or charts and those that evoke site-specific temporal perceptions, such as a windmill or pivot irrigator, come together to raise questions of space through spatial measures and orders.

Despite their qualitative differences, site-specific experiences and Cartesian measures and frameworks in landscape architecture mutually enrich each other, fostering a sense of enlightenment and inspiration. Corner's collages and writings amplify these potential relationships between site-specific spatial and temporal connotations and different conceptions of order. Eidetic measures of land, control, rule, fit, and faith symbolize how social, political, ethical, historical, and environmental conditions or orders temporally influence our perception of space and, subsequently, of landscape agency. This framework stages collages as a medium that can contribute to the landscape architectural design processes because it encourages designers to visually and verbally articulate the groundings of qualitative site-specific perceptions, thereby enhancing their understanding of the site's historical and environmental context.

The role of media in extending human intentionality in communicating and examining space is transformative in landscape architecture. Whether through collage or AI tools, how designers interpret and express 'space' through media is central to understanding how space is conceived and transformed, inspiring new possibilities. Media such as CAD and GIS, where space is preconceived, can be enhanced, modified, and studied through collage and Midjourney. These media allow for a foregrounding of spatial-temporal interpretations of sites, a condition for understanding landscape architectural agency. They extend human intentionality in communicating and examining space by *positivistic*, *humanistic*, and *experiential* measures, including non-anthropocentric interpretations of nature. As media that allows multiple temporal examinations of space beyond what software deems measurable or representable, studies on collage can convey the inner workings and the agency of landscape interpretations and

representational methods and thus contribute to conventional landscape architectural design endeavours using survey, analysis, and design procedures.

Landscape representation methods, from traditional documents like maps and plans to the transformative power of AI-driven renderings, significantly influence our spatial and temporal perceptions. The emergence of AI is a technological advancement and a shift in global knowledge. It can reshape our understanding of landscape space as a medium that extends nature and cultural experiences. Media and perception intertwine as layered episodes of emotions and spatial expressions, structured through nature-culture relationships. This dynamic can be understood as a communication of temporal space, which is infused with emotions and spatialized time, charged with geometric attributes.

Design documents, particularly renderings, are instrumental in spatializing time. They introduce a new temporal order that builds upon previous ones, materializing as perspective in 3D space, lines, boundaries, or rhythms in 2D documents. Both collage and Midjourney evoke moments of uncertainty that further amplify the communication of these spatial and temporal qualities. They enable intentional juxtapositions of words and images, demonstrating how temporal perceptions influence our imagination of sites. They extend the designer's intentionality by stimulating eidetic measures, facilitating seeing one spatial-temporal perception to serve as a vehicle to evoke and imply other spatial or temporal perceptions.

Designers can convey interconnected ideas of temporality and spatial order through intentional fragment-juxtaposition and verbal descriptions in collage-making, from visual exploring to interpretations. Seen as the reverse, from descriptive words to images, Midjourney requires 'momentary finalized' interpretations as conceptions/assumptions of order and emotions acting as connotative or constituting prompts. Within this context, the humanistic-temporal approach to space and more recent theories on landscape agency, which focus on synthesizing ideas of time, temporality, and order, denoting what landscapes are and do, gain prominence in working with landscape collages and interpreting renderings. This creative exploration may be possible through plotting various eidetic discovery measures. However, the process of translating landscape ideas into visual documents that evolve into the built environment is challenging, underscoring the depth and complexity of the landscape design process.

Figures

Permission: Collages by James Corner. In *Taking Measures Across the American Landscape* (1996). Yale University Press (82021).

CHAPTER TWO: PHILOSOPHICAL GROUNDING

2.1 Introduction

Landscape architectural imagery and visualization deepen designers understandings of how people connect with, perceive, and inhabit places they find significant. These interactions involve intuitive observations and reactions to conceptualizing physical experiences, such as engaging with nature through landscape projects, together with recollections of subjective ideas that linger between forward-looking imagination and retrospective memory. They signify emotions in and of space and the role of imagination in shaping how we register cognitive experiences such as consciousness, joy, and the creation of personal, intuitive measures and criteria to describe spaces and places.

Philosophers have long sought to explain the workings of imagination through procedural, logical, and descriptive concepts. This thesis uses the theory of *flow* from psychology — a state of deep engagement involving a creator, a domain, and a field (Csikszentmihalyi, 1990; 1996)[1] — to explore how imaginations of space (matter) rely on pluralistic perceptions of time and memory, referred to as duration in philosophy. It argues that collage-making facilitates a flow for landscape ideation — a *dynamic dialogue* between the designer, medium, and subject — to examine and explore spatial durations exchanged between the body and the world. Landscape collages visualize the durational qualities of spaces and places by summoning and integrating fragments and juxtapositions that evoke site-specific connections to time: past, present, and future.

The chapter explores two representations of collages: James Corner's collages from his 1996 book, discussed as 'temporal maps' in Chapter One, and Picasso's *Guernica* of 1937, which depicts a space consumed with horror. This chapter draws on philosophies centred on human imagination and perception to ground how interpretations of these different examples of collage *fluidly* move between indivisible

[1] In *Flow: the Psychology of Optimal Experience* (1990) and later in *Creativity: Flow and the Psychology of Discovery and Invention* (1996), Mihaly Csikszentmihalyi forwarded his theory of flow as a creative condition, a *dialogue* between the individual, a domain, and a field. In this framework, he reformulated "the question of 'what is creativity' to 'where is creativity'" (Kozbelt, 2016, p. 579, 573-594 in Glaveanu, 2016). Flow, in this sense. is an "optimal experience" (1990, p. 4), a hypothetical space or time or a mental zone, where individuals are fully immersed, focused, joyful, and intrinsically creative. In Csikszentmihalyi's words, this psychological state occurs "when things were going well as an almost automatic, effortless, yet highly focused state of consciousness" (Csikszentmihalyi, 1996, p. 110).

According to Kozbelt (2016, p. 579), Csikszentmihalyi proposed a 'systems view' in which "creativity is not an inherent property of any object; rather, judgments of creativity emerge from the interaction between the current body of knowledge constituting a *domain* , individual *creators* producing variations on that knowledge, and individuals constituting the *field*, who are in a position to decide which of those variations are worth preserving as part of the domain for the next generation of creators."

conceptions of space and time. The chapter limits its scope to the role of imagination, phenomenology, hermeneutics, and metaphysical understandings of time. These philosophies explore the mind's perceptual intervals to generate subjective and qualitative ideas and methods of interpretation as ways of perceiving the world. Their approach and scope provide valuable clues to interpret landscape collages.

The experience of creative flow encapsulates the key concept of collage-making. In this process, the designer (the creator) is immersed in a dialogue between spatial and temporal factors to improve understandings of site conditions (the domain), and overarching spatial issues understood from site visits, surveys, and the project brief (field of knowledge). Collage-making enables designers to immerse themselves in these complex, interconnected realms between imagination and representation. This qualitative and subjective immersion enables a creative state to study, juxtapose, relive, and reimagine different site conditions. In this state, the designer's interpretations fluidly move between perceptions of the past and imaginations of a possible future. In collage-making and reading, the imagination keeps interpretations of space and time tangible to the mind and body. By contrast, this speculative connection between the body, mind, and medium reduces when working with Midjourney, as the engine predefines the parameters exchanged between the user and media.

Midjourney's text-to-image mode is 'deterministic', establishing the quality and quantity of communicable information, as users currently have no access or control over the AI model. This determinism may hinder designers' exposure to potentially meaningful ideational trajectories. Midjourney, as a non-discipline-specific visualization tool, can create a gap between the qualitative intent the informed or uninformed user seeks to convey through descriptive words and the visual output generated by the engine. Critical explorations of landscape collages can bridge this gap, translating ideas of the body and mind into more nuanced and intentional descriptive articulations and representations. A key question here is how philosophy helps designers interpret abstract space-time dynamics in the collage medium?

2.2 Collage and Synthetic a Priori Ideas

Representations, such as those by Corner (1996), prompt designers and readers to think about space, the land, and both humanistic and Cartesian measures applied to places. Based on Descartes' scientific methods, Cartesian measures separate mind from body and object from subject in the pursuit of certainty (Scruton, 2003, p. 12, 26-40, 121-130). As seen in Chapter One, Cartesian interpretation measures can

reduce ideas of place to scientific, objective ideas of space. When conceiving ideas and interpretations of land and place, the mind moves beyond such disconnected, neutral, and impersonal measures. The mind synthesizes and reflects on *synthetic a priori* ideas, "necessary truth" not derived from experience but justified through subjective reflection (Scruton, 2003, p. 141), as part of its engagement with place.[2] It employs what philosophy names aesthetic judgment — a middle ground between objective perception, enabled by Cartesian and empirical reasoning, and subjective perception, enabled by imagination.

In a constant state of flux, the imagination allows designers to perceive space and its representations as familiar to the mind. These can either be described through empirical evidence or imagined through subjective thoughts. Kant's belief in the mind's "intellectual structures" is crucial, as it serves as the apparatus for understanding and generating ideas and judgments within the constraints of the world's space-time (Tarnas, 1991, p. 347; Scruton, 1982, p. 39). In the *Critique of Pure Reason* (1781), Kant identified twelve *a priori* categories of understanding, including quantity, quality, relation, and modality, each with four attributes. In the *Critique of Judgment* (1790), these twelve *synthetic a priori* criteria became the subjective foundation for aesthetic judgments. [3]

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[2] Kant sought to demonstrate that synthetic *a priori* knowledge is possible and that analytic propositions based on pure reason alone neglect the significance of subjective experiences and leads to illusions of reality; one cannot have an *a priori* knowledge of 'things-in-themselves' (Scruton, 1982, p. 31; Scruton, 2003, p. 141). Scruton writes:

> Kant's proof of these contentions begins from the theory of *synthetic a priori* knowledge. According to Kant, scientific knowledge is a posteriori: it arises from, and is based in, actual experience. Science, therefore, deals not with necessary truths but with matters of contingent fact. However, it rests upon certain universal axioms and principles, which, because their truth is presupposed at the start of any empirical enquiry, cannot themselves be empirically proved. These axioms are, therefore, *a priori*, and while some of them are 'analytic' … others are 'synthetic', saying something substantial about the empirical world. Moreover, these *synthetic a priori* truths, since they cannot be established empirically, are justifiable, if at all, through reflection, and reflection will confer on them the only kind of truth that is within its gift: necessary truth (Scruton, 2003, p. 141).

[3] In Kant's *Critique of Pure Reason* (1781), the 'Transcendental Analytic' section elucidates the categories, which are *a priori* structures of understanding. These categories are universal and necessary conditions for any possible experience, shaping one's cognition of the world. Transcendental ideas precondition human experiences within the premise of space-time (Lacey, 1976, ed. 2005, pp. 42-45; Levine, 1984, p. 194). They include:

- quantity [unity, plurality, totality],
- quality [reality, negation, limitation],
- relation [inherence/subsistence, causality/dependence, reciprocity],
- modality [possibility/impossibility, existence, necessity/contingency].

Kant's philosophy on aesthetic judgment brought a categorically new way of thinking in philosophical discourses (Scruton, 2003). His transcendental idealism or subjectivism depends on *a priori* only available to and certifiable by the mind, which forces and references itself as a subject by ideas such as the Sublime or reflects on the other by ideas of the Beautiful (Bernard, 1892). This idea is the subject of Kant's most important book with respect to landscape architecture, the *Critique of Judgment* (1790). In understanding natural beauty, the quality is disinterested or "negated," the quantity is of "universal satisfaction," the relation has "purposiveness purpose," and the modality is a "necessary satisfaction" (Bernard, 1892, pp. 95-110). The idea of the Sublime,

Engaging with additional collage imagery may be helpful to demonstrate *synthetic a priori* ideas in operation. At the same time, the critical interpretation of Corner's collages may require a foundational understanding of American landscapes or the practice of mapping. His visually juxtaposed images remain accessible to a broad audience because they incorporate *familiar* fragments of information, like a windmill, a map, or a recognizable practice like agriculture. Similarly, though in a completely different context, Picasso's *Guernica* (1937) evokes a comparable effect. The mural is a non-perspectival imaginative depiction of the 1937 bombing of Guernica, a Basque town. The fragmented space simultaneously evokes a connection and disconnection with what a viewer might find familiar. This is a 'space' synthesizing spatial and temporal attributes, including quantity, quality, relation, and modality. A viewer may not explicitly recognize the mural's reference to the fear unfolding in a public space, which may be considered a landscape. However, they can perceive faces, figures — human and animal, flashes of light through an indoor/outdoor lamp, projecting a bombarded space as a place consumed by horror. The mural depicts a space not through traditional, scenic and perspectival features, such as length, depth, volume, and shadow, but rather through a flattened and fragmented synthesis of black-and-white silhouettes, evoking a historical photograph of an imaginable fearful memory.

While the space in Corner's collages suggests ideas related to landscape design, prompting questions about what constitutes spatial interpretations of sites, or subject-specific perceptual criteria, the space in Picasso's *Guernica* is unequivocally one of fear — an aesthetic judgment that actively engages our imagination of space, time, and the human emotions tied to familiar places and memories.

Kant's recognition of the pivotal role of imagination in cognition, as outlined in his *Critique of Judgment* (1790), has profound implications for an understanding of human perception. His introduction of *synthetic a priori* aesthetic ideas that guide perceptions of beauty and his identification of the primary constraints on human experience as space and time are theoretical constructs and ideas with practical implications. Kant's twelve categories of understanding, which he referred to as transcendental *a priori* concepts, are not just abstract concepts but tools that form the basis of human intuition within the constraints of space and time matrices, causal relations, and substance. These categories, including quantity, quality, relation, and modality, are practical aides that help qualify or quantify subjective interpretations.

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e.g., roaring water, violates all ideas listed above. Quantity, quality, relation, and purpose are negated to excite the subject, calling upon the human mind's limits, hence its sublimity.

As demonstrated in his *Critique of Judgment* (1790), Kant's transcendental idealist method moves beyond purely analytical claims grounded in objective and empirical evidence. His a priori principles explain how and why designers employ subjective judgments of beauty and synthesize them with empirically verifiable experiences. This process involves validating the presence of a priori ideas — subjective reflections grounded in previously experienced phenomena, including space, through the sense of familiarity evoked by collage fragments and juxtapositions. By using imagination and memory, designers can go beyond rational and empirical frameworks to establish subjective judgments as part of their thinking process. This understanding, that human imagination enables deeper knowledge through aesthetic reflection, is crucial for interpreting landscape briefs, sites, spaces, and projects.

2.3 Collage and Phenomenology of Consciousness

Corner's collages and Picasso's *Guernica* (1937) reveal highly intentional, bodily-engaged, decisions and conscious reflections about site and subject. These works emphasize *intentionality* by presenting familiar fragments of the world in a non-conventional, unexpected manner, evoking curiosity about their potential meanings. This curiosity through familiar fragments echoes phenomenological perceptions of everyday experiences — a cognitive synthesis between 'the natural attitude' and 'eidetic intuitions' that emotionally connect the viewer to the work, making the analysis more relatable.

Visualization, regardless of subject, context, and medium, plays a crucial role in revealing human intentionality and consciousness about something. Franz Brentano (1837–1917), considered the father of psychology and a teacher of many influential thinkers such as Edmund Husserl (1859-1938) and Martin Heidegger (1889-1976),[4] believed consciousness signifies intentionality (Brentano, 1874, ed. 2009, p. 68) — it is always directedness and aboutness about something (Husserl, 1931, p. 33). Intentionality gives consciousness a measure of certainty about what consciousness is. Brentano thought action-reaction-direction was how the mind worked through thoughts and perceptions signifying intentionality (Jacquette, 2004).[5]

[4] "… and his students included Franz Kafka, Carl Stumpf, Sigmund Freud, Alexius Meinong, Christain von Ehrenfels, Edmund Husserl, Bertrand Russell, G.E. Moore, Max Scheler and Martin Heidegger" (Davis et al., 2005, p.408).

[5] *Action* within intentionality is an empirical observation, psyche, and presentation. Concerning *relation* there is an inclination toward an "intended object" related to a "state of affairs," which also gives a "morph," a bodily form of the idea, the things observed in stage one. In *direction* there is a "mark of the mental" that "deflects," which is a "self-referential moment." Intentionality, in this structure, is the realm where one can "mark" the distinction between the mental and the physical (Jacquette, 2004).

Husserl's belief in reducing unintentional perceptions in our everyday experiences, was not just a personal conviction, but a result of his intellectual rigour. He challenged Brentano's view through his conception of phenomenology in *Logical Investigations* (Husserl, 1900; xxiii, xxix, xxx). Later, "in *Ideas* [*Ideen*] (1913) he defended phenomenology as a 'presuppositionless' and pure description of the content of consciousness, i.e., what is before our mind when we have a thought" (Mautner, 2000, p. 260; See Husserl, 1907). Husserl proposed three stages to position both intentional and unintentional perceptions within phenomenology — the natural attitude, the first phenomenological reduction, and the second phenomenological reduction or eidetic reduction. The natural attitude entails daily pre-reflective encounters with the world, while the phenomenological reductions encompass suspending assumptions about these encounters. Most significantly, Husserl forwarded that eidetic reduction could uncover the essential features and criteria in the perception process of phenomena.

Husserl's framework offers a critical clue for interpreting collages. Exploring everyday perceptions through ordinary fragments of lived experiences can reveal intentional, conscious moments and less intentional, mixed emotional factors that guide consciousness to perception and human understanding of the world. In outlining the interplay between perceptions and intentionality, Brentano posited seven stages to direction/deflection — the self-referential moment influenced by cultural, social, economic, historical, psyche/psychological, physical, and ethical factors (Jacquette, 2004). In contrast, Husserl argued that emotions play a primary role in human understanding, what he referred to as 'phenomenological reductions', and, consequently, in the logic behind perception and consciousness.[6] In Husserl's framework, consciousness was not merely a receptacle for perceiving the world but an extension of the experienced world, which he termed 'the natural attitude,' or entities reflective of and interwoven with experienced phenomena (Husserl, 1900, p. 169, 191). Everyday experiences are full of moments that evoke emotions, and these emotions are essential to perception and understanding of the world.

Landscape collages, a rich source of emotional engagement, extend the mind to the lived experiences of sites. The fragments and juxtapositions within them create tensions between what the mind perceives as real, existing within the site, and imaginative, suggesting what may exist or happen as lived experiences. These tensions, a key focus of Husserl's framework, evoke contracting speculations and contradictions,

[6] Lavine (1984, p. 393) wrote, "Husserl rejects … the cultural and historical relativism of phenomena."

creating phenomenological gaps in the mind. Husserl's framework, with its concept of eidetic reduction, provides a robust tool to understand and fill these perceptual gaps.

When applying Husserl's framework to collage-*reading*, it is important to remember that the reader plays a crucial role. Husserl describes ordinary engagement with the world, in this case, a collage, as 'the natural attitude,' and moments of understanding as 'phenomenological reduction' or "standpoint" (Husserl, 1931, trans. 1960, ed. 1982, pp. 72-77, 110; Mautner, 2000, p. 260). He suggests that the transitional reduction(s) in mind is intentional and reveals the mind's inclination to unfold the tensions described, between suspension and phenomenological reductions, by engaging and understanding the world through "eidetic intuition" (Husserl, 1931, trans. 1960, ed. 1982, p. 72, 77, 113).[7]

In collage-*making*, eidetic intuitions trigger designers' imagination when, for a moment, they realize heterogeneous moments of space and time through interpretations of place and memory, making them familiar. Husserl refers to these fluxes as momentary clues within 'imaginary' or 'eidetic' variations, "… *a manifold system of continuous patterns of appearances and perspective variations"* (author's italics, Husserl, 1913, tr. 2002, p. 77). Hence, eidetic intuitions – imagination influenced by emotions – play a significant role in sparking curiosity about potential relationships between chosen fragments and juxtapositions. These emotions not only engage the viewer but also suggest possible intuitive trajectories reflective of the site or subject. The curiosity underpinning their potential interpretations arise from lived experiences, the fragments and juxtapositions reflective of the site or the 'natural attitude'. This analysis also reflects Corner's definition of eidetic thinking that results from seeing space as a familiar matter to the mind, experienced by both designers and people. This shared understanding transcends eidetic perceptions of landscapes as an imaginative pathway to explore less familiar spatial measures (Corner and MacLean, 1996, p. 33), unfolding "previously unforeseen relationships" in sites (Corner, 2014, p. 16). Corner writes, "… eidetic constructs effectively bind individuals to a collective" and is "… more an

[7] See 'eidetic abstraction and reflection' in Husserl's book *The Idea of Phenomenology* (1907, trans. by Alston and Nakhnikian, ed. 1995, p. 45), and see 'eidetic intuition' in his *Cartesian Meditations* (1931, trans. by Cairns, 1960, ed. 1982, p. 72, 107).

To summarize, "Husserl distinguishes between the natural," the natural attitude: ordinary encounters in daily life, "and the phenomenological standpoint" (Mautner, 2000, p. 260). He correlates consciousness, natural attitude, and phenomenological standpoint or focused attitude with a moment of transcendence — a plane of thought later named *eidetic intuition*. To do so, he substituted "the term inner perception," consciousness, with "that of adequate perception," the natural attitude "distinguishing adequate perception from evidence" (Morrison, 1970, p. 44). So, for Husserl, things are not "'appearance' of things-in-themselves, things as they are independently of our ways of perceiving them" (Lavine, 1984, p. 393). Things are extensions of our *eidetic* engagements with phenomena, now outlined through phenomenology.

unfolding spatiality than surface appearance, more poetic property than the delineation of immediate real estate" (Corner, 2014, p. 247). They ground the imagination in place.

Guernica (1937) is a powerful depiction that unfolds spatiality, revealing emotions, particularly the bodily emotion of fear. The disconnected fragments of darkness, flashes of light, scared faces, and collapsing indoor/outdoor spaces all serve to signify fear. The sharp edges within the mural suggest shattered pieces, while the dots on the horse evoke the perception of newspaper fragments pinned to the wall, delivering news of public chaos. These elements conjure an eidetic space consumed by horror — a horror that signifies both a past event and a spatially present terror unfolding before the viewer. The role of temporal perceptions such as these is significant. For Heidegger, temporality does not merely signify measures of eidetic certainty within the phenomenological process of understanding the human mind, which was Husserl's focus. Instead, temporalities can signify 'being', a way of being present in space (*dwelling*) and time (*dasein*) (Heidegger, 1927, ed. 2001, pp. 190-199, 375).

In *Being and Time* (1927), Husserl's student, Heidegger (1889-1976), argued that there is no final solid moment of accumulated feelings or intuitions. Consciousness depends on how humans become *present* at different times and spaces (See Heidegger, 1927, p. 221).[8] In reading *Guernica* (1937), the viewer is not a passive observer but an active participant who feels and relives the experience of fear, temporally in the mind and spatially in front of the mural.

Heidegger's term, "the structure of care," representing the nature of consciousness, is a profound concept that appeared in his writing in 1927 (p. 375). He suggested that to understand consciousness, being – *dasein* – one must realize that humans operate in "temporality," which depends on two things: one is the conscious being and the other is time (1927, p. 375). There is no certainty in consciousness, as human temporality or *dasein* always has disposition, such as moods, pressing issues, and desires (1927, ed. 2001, p. 182).[9] *Dasein* includes disposition, discourse, and the pressing onwards-mentality aligning with past,

[8] According to Husserl and to engage Heidegger's vocabulary, in eidetic reduction, "the structure of care", which is "temporality", is at play, creating epoché or brackets of understanding (Heidegger, 1927, ed. 2001, p. 375).

[9] Heidegger also mentioned "discourse" or "articulation," to press toward the future, which he worded as "anticipatory resoluteness" (Heidegger, 1927, ed. 2001, pp. 190-199, 372). The latter was also part of Heidegger's existential account of how to be authentic or "… Being towards one's own most, distinctive potentiality-for-Being" (1927, p. 372, 376) in a world where we are "thrown" (Levine, 1984, p. 396) in a fast-paced social context, with so many modes of being influencing our consciousness.

present, and future, explaining why his book is titled *Being and Time*.[10]

Husserl and Heidegger's account of phenomenology, and on phenomenological reduction and expansion, can offer valuable insights into how collage-making can reveal perceptual scores of the mind by referencing space and time. Landscape collages, in particular, play a significant role in visually elucidating actions, reactions, and directions of things that are eidetically, and hence emotionally, significant in space and time. This emotional significance is a key aspect of the study. Phenomenology advocates for eidetic reduction to uncover essences, revealing themselves through categorial or eidetic intuition, not sensory intuition. This intuition emphasizes the presence of images in human thoughts, giving rise to 'images of memories, imagination, and dreams' [11] (Husserl, 1900, ed. 2001, p. xxviii; 1907, ed. 1995, sec. 2; Bergson, 1896, tr. 1911, ed. 2001, p. 21; also see Massumi, 2002, p. 119).

2.4 Collage and Hermeneutics

Interpretations of Corner's collages and Picasso's *Guernica* (1937) suggest that these works function as hermeneutically rich representations, inviting the audience to incorporate interpretations as part of the experience with these media. In Corner's collages, interpretations and measures of land and space come to mind, while *Guernica (1937)* activates our bodily capacity to feel and remember emotions associated with fear. Both works evoke curiosity while provoking distinctly different spatial and temporal interpretations.

Hermeneutical aesthetics is a branch of philosophy concerned with theories of interpretation, particularly concerning experiences with art. In Hans-Georg Gadamer's (1900–2001) philosophy, which examines the aesthetic and interpretive dimensions of engagement with art, interpretation is neither a preconceived notion nor merely supplementary but an integral part of what the artwork communicates. Artworks activate a hermeneutical process ('circuit') by involving and fusing different horizons — the 'fusion of

[10] Husserl sought methods seeking 'certainty' (Lavine, 1984, p.395). Later, Heidegger's dasein clarified that Husserl's logical reduction could not guarantee certainty as a particular method to acquire true knowledge of and from perception. This problem was something that Husserl realized later in life (Lavine, 1984, pp. 393-397). Husserl's late focus on the lifeword (lebenswelt) is similar to Heideigger's findings of being (dasein).

[11] Pallasma has a similar argument: "… Images of presence give rise to images of memory, imagination, and dream" (Pallasmaa, 1996, p. 44).

horizons' or mindsets influenced by tradition, history, and language (Gadamer, 1960, p. 578).[12]

Gadamer emphasized that the contextual ideas derived from the artwork's subject matter or the interpreter's viewpoint are essential for enabling broader, more profound, and more contextually relevant interpretations. He believed that the statement "being that can be understood is language" (1960, ed. 1995, p. 470) suggests that consciousness and language are fundamentally intertwined.[13] This means that the conscious experience of art, both in its creation and interpretation, is mediated through linguistic expression and inherently grounded in history and context. The quality of art and interpretation rooted in tradition and language facilitates the fusion of diverse perspectives across different times. It enables ambiguity and fusion, shaping richer hermeneutical reflections between parts and wholes — a hermeneutical circle — by connecting media, subject matter, and the unique viewpoint of each interpreter, thereby empowering them with their unique perspectives.

In his collages, Corner (1996) integrates personal insights with broader cultural and environmental cues, creating a layered map — an eidetic map — that captures the interplay between the familiar and the unfamiliar. While the audience for his writings and collages is mostly from disciplines interested in the built environment, his collages are not only relevant but also evoke a sense of familiar ambiguity for a broader audience. He achieves this through visual connotations of spatial measure, including the Jeffersonian grid system and criteria informed by cosmogenic beliefs or astronomical worldviews. By intentionally juxtaposing these familiar but philosophically distinct perceptual measures through connotating fragments, Corner invites viewers to reflect on their synthesis. These measuring practices communicate evolving, familiar, and shared ideas of space and time – what has been or continues to be an eidetic spatial measure over time.

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[12] In his explanation about the 'fusion of horizons' in relation to the 'hermeneutical circle', Gadamer wrote:

> What I described as the fusion of horizons was the form in which this unity actualizes itself, which does not allow the interpreter to speak of an original meaning of the work without acknowledging that, in understanding it, the interpreter's own meaning enters in as well. One misunderstands this basic hermeneutic structure when one thinks that a historical or critical method could be used to 'break' the circle of understanding (Gadamer, 1960, p. 578).

[13] Gadamer acknowledged, "… that human experience of the world is verbal does not imply that a world-in-itself is being objectified" (Gadamer, 1991, p. 447). On the contrary, the structure of language and consciousness, being horizons conditioned by knowledge, history, or traditions, allows ambiguity and fusion, or in his terms, the play in hermeneutical judgments toward understanding. This summary explains the interplay of parts and wholes, called the hermeneutic circle (Gadamer, 1960, p. 578).

Inspired by Gadamer, Corner suggests thinking beyond what is given in space and its representational media (Corner, 2014, p. 19, 96-100). As Mautner explains, "according to Gadamer, we are so radically conditioned by our position in history that it is not at all possible to return to the perspective of past authors and actors" (Mautner, 2000, p. 215). Inferred from Gadamer, one in the present cannot operate within the mindset of the past, or as Gadamer states, 'horizon,' of the past. Contrarily, the interpreter's or designer's attempts at the present bear the mark of the current time conditions, inevitably adding new layers. These layers bring the temporality of the present to construe or construct interpretations. This process, known as the 'fusion of horizons' is a key concept in Corner's understanding of eidetic spatial measures in landscape architecture.

Human awareness changes through time. Philosophers have demonstrated that intuitive circuits between the familiar and the unfamiliar are always present in the mind. Heidegger's philosophy falls between the pure or transcendental phenomenology of Husserl, understanding through phenomenological reduction, and the existential phenomenology of Jean-Paul Sartre (1905-1980). The familiar is always a reflection of the personal life and subsequent feelings, understandings, and responsibilities that fall from these scores of perceptions. The unfamiliar is what the conscious being may find: certainty for Husserl, authenticity in Heidegger, perception for Sartre, intertwining bodily perception for Merleau-Ponty (1908-1961), and atmospheric-spatial perception for Pallasmaa (1996). For Hans-Georg Gadamer, it was the hermeneutical circuit, the play of aesthetic judgments (Gadamer, 1960, ed. 1995, p. 102). While these philosophers explored the nature and content of phenomenological and hermeneutical perceptions within the mind, Bergson uniquely centred his focus on perception's progression within the mind, elucidating how consciousness reacts to perceptual stimuli through the concept of duration.

2.5 Collage and Intuitions of Time

Henri Bergson's (1859–1941) exploration of time, through *duration* and *aggregate images,* resonates with collage-making. His work offers a metaphysical lens to expand an understanding of consciousness as ongoing moments of physical and mental bodily 'intuitions' (Bergson, 1896, tr. by Palm and Palmer, 1911, ed. 2001, p. xiii, 21, 66, 71; 1907, p. 139). Collage-making exemplifies these continuous intuitive moments by juxtaposing fragments that reveal the immediate and indivisible relationships between physical and mental experiences of space and time: he calls this 'duration'.

Corner's collages (1996) and Picasso's *Guernica* (1937) demonstrate that fragment juxtapositions can represent a plurality of intuitive messages about space, time, and memory. They carry phenomenologically and hermeneutically rich meanings about context and subject. Bergson (1896, p. 165, also see p. 35, 61) described these intuitive intervals as "… a product of the mind… we perceive the resemblance before we perceive the individuals which resemble each other; and, in an aggregate of contiguous parts, we perceive the whole before the parts". Bergson studied the 'aggregate images' of the mind as a metaphysical characteristic of the perceptual process. He argued that the mind conceives the durational qualities of *matter* (the experienced world, including space) through the interplay of memories, present perceptions, and future imaginations. These are essentially mental-bodily interpretations of time.

Bergson explored *duration* as a central concept in human intuition and perception.[14] His insights into bodily-engaged and durational perceptions of space offer a potential escape from the dominant Cartesian view of time. In the Cartesian framework, time is divided into equally distributed spatial units by the mechanical clock, underpinning the laws of physics and mathematics.[15] Bergson's philosophy, however, offers a new perspective, one that is not broken into spatially divided, chronologically equal segments. It liberates designers from the constraints of this dominant view, opening the mind to a more dynamic and lived experience of space and time**.**

Cartesian representations of the built environment are a potent tool designers wield to articulate the physical attributes of space and time through quantifiable spatial metrics and time cycles. In contrast, Bergson's concept of duration underscores the qualitative impact of time on human perception of the world, including spatial experiences.[16] He posits that the Cartesian notion of time can limit the individual's (or the mind's) ability to perceive the world as an extension of their consciousness (Bergson, 1896, pp. 161-166).[17] This limitation results from the Cartesian space-time notion implying foreseeable and often

[14] *Time and Free Will* (1889), *Matter and Memory* (1896), and *Creative Evolution* (1907).

[15] Mechanical time is based on the rational divisions of a time block known as 24 hours and equal distances between two clicks or between explicit locations on the clock. In essence, to objectively measure time, inventors had to spatialize it. The spatial and measurable time is the kind of time-unit according to which Albert Einstein (1879-1955) grounded his theory of relativity of simultaneity (Canales, 2015).

[16] Bergson pointed out that the assumption that "our representation of the material universe is relative and subjective, and that it has, so to speak, emerged from us, rather than that we have emerged from it" sought to forward consciousness itself, by human perception acting as a medium, informing humans *in*, rather than *of*, their consciousness (Bergson, 1886, p. 54 in trans. by Paul and Palmer, 1911, ed. 2001, p. 19).

[17] Bergson opposed the traditional Cartesian split between mind and matter and the Kantian intellectual structure, the *a priori*, which resulted in viewing human consciousness as the mirroring effect of objects on subjects, like in the Beautiful, and subjects'

numerical spatial measures, thereby imposing objective and self-justifying space-time traits.

Bergsonian philosophy emphasizes the role of conscious time in perception, not objectified time like the mechanical clock, but the time it takes to absorb the affectional or temporal influence of things on the body. Bergson called this temporal influence 'affect,' felt by the mind and the body through 'duration.' Bergson's metaphysical explanation of intelligence, consciousness, and perception concluded with foregrounding duration or affective time, having a decisive role in perception and intuition as affective space. What affects the body evokes temporal reflection; when the body affects matter, it signifies consciousness. Human consciousness can extend its awareness through synthesizing simultaneous durations between matter (space) and mind, a moment Bergson described as "pure perception" (Bergson, 1896, p. 34). This transformation can inspire and motivate. When this perception, stripped of memory and focused on the present, happens within the mind, it has 'intensity'; when it is realized in the external world, it achieves 'extensity.' Bergson argues (1889; 1896; 1907), it is under the influence of intensity and extensity that human consciousness can spatialize inertly felt phenomena such as time.

Corner's collages (1996) and Picasso's *Guernica* (1937) evoke moments of 'pure perception' about space and time through aggregate images of the past — memory. The viewer, regardless of previous knowledge, is invited to engage with the collage representations. These representations enable the viewer to embody what Bergson referred to as 'recollections' of aggregated images that extend our awareness of the past to the future (Bergson, 1896, tr. 1911, p. xiii, 66, 77-79). The collage represents an intense moment of consciousness, a captured duration that reflects both the affective and cognitive engagement of the maker. Importantly, it also serves as a bridge that connects the viewer's memories with the work, creating a profound connection. Through duration, Bergson emphasized the role of intuition and conscious moments in shaping new perceptions of matter, and in this context, future speculations.

Collage representations, as seen in Corner (1996) and Picasso (1937), expose the pluralistic relationships between intensity and extensity. In the context of collage, 'intensity' refers to the private perceptions or the emotional and psychological depth of the work, while 'extensity' denotes the intentional juxtapositions and visualizations that convey these private perceptions**.** Bergson (1896) argues, the mind's

imagination on objects, like in the Sublime, where the sublimity of observed phenomena tells us more about the observer than the observed (Bergson, 1896, p. 15, 26, 182-184). He believed the split between mind and matter or perception and representation disregards the human space-time condition — temporality or emotions changing with time — in perceiving phenomena. Criticizing Descartes' subject-object dualism, he pointed out that human consciousness, the mind or, to use Lavine's words, Descartes' "thinking substance," cannot explain the substance — consciousness in itself (Bergson, 1896, trans. by Paul and Palmer, 1911, p. 2; Lavine, 1984, p. 108).

capacity to conceive, perceive, and project these interconnected, yet indivisible moments of intensity and extensity rests on the proactive role of memory in shaping and being shaped by new perceptions.

For Bergson, psychic intensity describes the isolation of the human mind as a centre to receive and project *affect images* through embodying *duration*, underpinning perception and representation of the world (1896, p. xiii; 1907, p. 139).[18] He believed that to understand 'matter,' one needs to understand perception and to understand perception, one needs to understand the possible action of the perceived on the perceiver and vice versa, a dynamic process where the act of perceiving influences the perceived object and vice versa. Bergson implies that when we ask what the mind or matter is, we overlook that perception and consciousness are actively involved. For Bergson, the intensity of perception indicates that time, whatever time may be, is not separate from the body.[19] In contrast, our perceptions of matter, including spatial matter, bear ideas of time through experiences of time and duration, as in memory and imagination. Affect or *duration intensity* in perception appear as fragments of space or extensity (Bergson, 1896, tr. 1911, pp. 2-4).[20]

Bergson's concept of duration offers valuable entry points to projections in collage and interpretations of landscape architectural stimuli. Communicating duration is significant in landscape ideation because it magnifies the role of the subject (the maker or viewer) as a critical participant in conceiving, perceiving, and representing pluralistic ideas of time, space, and place. The maker and viewer, through their choices of Cartesian and non-Cartesian conceptions of space and time, convey their interpretations of place. The durational qualities of 'place' communicated through intentional fragments and juxtaposition — 'aggregated images' — imply intuitive yet highly grounded reflections on the various spatial conditions and orders intrinsically present in landscape sites. These fragments and juxtapositions suggest past ideas

[18] Bergson regularly describes the body as a centre of 'indeterminacy', a centre of 'action' and 'representation' in *Matter and Memory* (1896).

[19] Hume argued that impressions are more forceful than ideas (Slavov, 2016; Craig, 2002). Like Hume, Bergson posited memory and perception as projecting differing degrees of consciousness, not as different kinds of consciousness. Bergson and Hume use different words to describe the degrees of influence. The degree of influence was previously known as affect/affection and appeared for the first time in Spinoza's *Ethica* (1677). Affect, if using Hume's words, is a lively/forceful impression, and if using Bergson's, is intensity (Scruton, 2003; Hume, 1748, sec. 22, p. 13; Bergson, 1886; 1896). For Hume, the impression of time is equal to motion and change in the natural philosophy when 'science' was either 'natural' or 'human' philosophy (Hume, 1739, book 1, p. 13). On the contrary, for Bergson, the intensity of time is equal to action — as a lived and experiential quality of time, a force which causes duration, the quality of time (Bergson, 1896).

[20] All the author's italics (1896, tr. 1911, p. 5): "*All seems to take Place as if, in this aggregate of images which I call the universe, nothing really new could happen except through the medium of certain particular images, the type of which is furnished me by my body*."

while also evoking future-looking speculations. They can reveal how the mind interprets spatial conditions of place through bodily, experiential, and durational qualities.

2.6 Synthesis

The philosophies explored in this chapter emphasize the crucial role of imagination in shaping our bodily and mental understanding of the world. Their frameworks have different scopes. Imagination for Kant emphasizes the role of *synthetic a priori* axioms in conceiving aesthetic judgments, extending (transcending) human understanding beyond analytic claims and empirical evidence. Husserl's *phenomenological reduction* method divides the perception of phenomena into three stages: the natural attitude, the first phenomenological reduction, and the second/eidetic reduction. He emphasized the vital role of eidetic intuitions — a search for essences within imaginary variations — in connecting and grounding these three levels of phenomenological experiences. Heidegger's *structure of care* highlights the role of temporality in perceiving *being* and *time* (dasein), and Gadamer's *hermeneutical circle* suggests fusing diverse horizons (or contexts), including tradition and language, to make our interpretations of artworks relevant to the present time and context. Finally, Bergson's *metaphysics of duration* integrates bodily and mental understandings of time and our perceptions of matter (space/universe). These philosophies share a common ground: they highlight the integral role of the individual (subject) in generating and grounding speculations about human understanding of different phenomena, including space (object). With Bergson, duration — bodily notions of time — introduces a metaphysical understanding of consciousness by viewing it as a 'center of indeterminacy', simultaneously engaging in perceptions of matter (space) and memory (conceptions of time).

Bergson's conception of duration encapsulates the immersive experience of collage-making and reading, illustrating the mind's *flow* as an *ongoing dialogue* with spatial and temporal fragments that shape and 'affect' our perceptual intervals. Duration generates intuitive momentum in the mind, an *intensity* that embodies the *felt* experience of time, which, in turn, deepens our understanding of the experienced world or *extensity*. Bergson characterizes perception as a continuous, intuitive state oscillating between intensity and extensity, with memory provoking moments of recollection and recognition. In this oscillating state, which he described as 'flow' and 'flux' (1896, p. 65, 78), memory (past), pure perception (present), and imagination (future) merge as equal and 'contingent' fragments of images, shaping our complex, temporally rich understanding of the world. Hence, moments of perceptual suspension and

uncertainty about space and time evoke curiosity, drawing the mind and body toward seizing duration-intensive intuitive moments as an anchor for perception. This curiosity, arising from the interplay of indivisible fragments of space and time, characterizes the experience of collage-making and reading.

Corner's collages (1996) and Picasso's *Guernica* (1937) evoke interpretations that signify both ideas of the past and speculative feelings about the present and future. At first glance, the intentionality in these works may seem to rest solely on fragment choices and juxtapositions. However, the collage's unique ability to engage the viewer in the creative flow — a dynamic state between the maker, domain, and field of knowledge — is often underplayed in its interpretations. These works are rich in durational intuition moments, enabled by pieces of contingent context-specific information. They evoke intellectually pluralistic and stimulating interpretations of the creator's thinking processes, encompassing ideas of space, subject, and context.

Corner's and Picasso's representations convey subjective expressions about a specific subject or context, and the philosophies explored in this chapter provide multiple pathways for engaging with them. Broadly, these philosophies suggest that our intuition — whether enabled through subjective judgments (imagination), phenomenological engagements with everyday experience (our eidetic intuition and being, or *dasein*), or interpretations rooted in memory (hermeneutics and duration) — plays a crucial role in understanding the dynamics of human perception. They propose that the mind draws upon familiar matters and memories to make sense of lived experiences. This engagement with the familiar unfolds through the connoting and denoting of fragments and juxtapositions in Corner's and Picasso's representations. In these works, the mind engages with 'the familiar' by uncovering pluralistic relationships between contextual interpretations of time, space, and subject/context.

2.7 Conclusion

In the context of the landscape architectural design process, particularly during site surveys, grounding familiarity involves understanding both emotions and personal reflections, as well as the multiple and complex environmental, vernacular, historical, social, and political conditions and conceptions of spatial order that shape the lived experiences of sites. Conveying the complexity and relevance of intuitive emotions and eidetic interpretations of spatial order is vital to the design process. However, communicating these qualities through conventional representational methods such as maps, plans, renderings, and photographs is challenging.

Landscape designers can benefit greatly from collage-making by exploring the site-specific, intertwined, and pluralistic connections between emotion and spatial order. Collage-making enhances understanding and sparks fertile ideation curiosities. It reveals how individuals — both the collage-maker and the reader — perceive a site context or design subject through eidetic intuitions and context-informed investigations of objective and subjective spatial measures. As an ideational tool and representational method, collage can evoke the dialogical and durational flow between the creator and subject/context, leading to enlightenment and a deeper knowledge of the design subject.

The philosophies of imagination and perception, studied in this chapter, help to unfold the dialogue between the designer's imagination and representation, keeping the interpretation process open yet grounded in specific subjects and contexts. Analyzing Corner's collages (1996) as temporal maps and Picasso's *Guernica* (1937) as an atmospheric representation of fear reveals the crucial role of the viewer or reader in deciphering such representations. The viewer or reader, informed or unfamiliar with the context, engages with what they may deem familiar in the representations, followed by questions that help ground these interpretations in a specific context or subject. In the reading of collage, these speculative inquiries into the unfamiliar can be framed as questions about:

- Space, which raises site-specific questions about space and its various spatial and temporal orders, which may be literal, implied, imposed, functional, cultural, natural, and more.
- Emotions, which invite context-specific questions about communicated emotions, both direct and indirect, including ideas of control, certainty, fear, hope, happiness, and more.
- Reference, which encourages looking for hints of implicit and explicit references to various things, such as a location, an individual, an idea, an artefact, natural processes, and human practices.
- Subject/context, which explores contextual ideas, the cultural context in inquiry, and media.
- Method of delivery, which examines how an idea is conveyed through analytic-Cartesian or imaginative-eidetic methods.
- Aspiration, which investigates what the creator seeks to communicate, including ideas of equity, sustainability, ecology, social issues, historical events, propagandistic ideas, and more.
- Audience, a crucial element, which questions who the intended audience is, as informed audiences and laypeople often have different opinions about space. Their perspectives and interpretations are integral to the analysis process.

- Priority-neutrality paradox, a concept that considers paradoxical interpretations of collage and its representations of context. It challenges the feeling of neutrality and mental suspension by conveying or evoking moments of clarity.

Corner's and Picasso's works are eidetically significant as they illustrate how spatial ideas, encompassing visual representations and physical manifestations, influence the mind and body. The analysis of their works revealed intentional decisions about space, subject, and memory. One can investigate 'the familiar' or the context-subject in these works through connotating spatial and temporal fragments. Corner's collages synthesize Cartesian and eidetic, memory-informed measures to evoke synoptic visions or ways to summarize and describe the specificity of the site and subject. He engages readers in a dialogue about 'what constitutes an interpretation of American landscapes?' This dialogue requires prior knowledge of spatial agency in the built environment, in this context, the American landscape and the practice of mapping. In contrast, Picasso's *Guernica* (1937) addresses the massacre as an unfolding event before the viewer, evoking fear and the decline of humanity. The viewer experiences the mural as a durational event, temporally in the mind and spatially in front of the painting. Its duration unfolds through an atmospheric spatial depiction composed of indivisible fragments of space and time. Unlike Corner's collages, which demand a specialized understanding of spatial agency and mapping practices, *Guernica* (1937) offers a more immediate, emotional, and accessible experience to a broader audience. These two very different expressions of fragmented representations reveal how they can enable diverse, contradicting, analytical, and emotional thought processes integral to landscape architectural design.

The outlined criteria are interconnected and engage the imagination with interpretations of time, space, and memories of place and subject. They can help designers analyze other landscape collages. Designers can actively engage with these criteria, using one factor to conceive and perceive the relevance of others. This dynamic flow between the designer/interpreter and the medium underscores the deeply interconnected and complex nature of perception, revealing how temporal conceptions of space, time, and memory can evoke spatial interpretations of a context or subject. Human imagination, particularly its connection to memory, plays a vital role in landscape architectural collages. Like landscape spaces and projects, landscape collages can present these subjective but explicit spatial qualities as context-specific fragments mediated through the body, mind, and various philosophical interpretation methods.

The process of creating a collage serves to humanize, extend, and deepen interpretation, imagination, and representation, which can often be reduced to the static representations of time and space in digital

design software. The collage medium provides a space for ideation, a bridge between imagination and visualization. This process often begins with the conception of space, a contemplation of the relationships between collage fragments and the ideas they represent, and the conception of time, a consideration of the qualities perceived over and with time. The human mind, influenced by various stimuli and culturally or naturally driven spatial ideas and orders, such as those in landscape projects, plays a significant and profound role in understanding 'place'. It is continually shaped by ideas of time and space, memories and imaginings of spatial experiences. These perceptual intervals, shaped by the human mind, form the foundation of place perception and spatial identity.

Landscape architectural collages intertwine ideas of space and time, presenting duration as an evolving quality inherent in any spatial experience. However, grounding fragments to the site or subject in question requires curiosity and scepticism about how experiential aspects of space, such as emotions, inform spatial orders on site, and vice versa. Like any medium, collage offers opportunities and constraints and influences idea generation, which will be studied in the next chapter.

CHAPTER THREE: SPATIAL IDEAS AND COLLAGE

3.1 Introduction

Focusing on collage as a tool for imagining and visualizing landscape design ideas highlights its unique capacity for fluid explorations of time, space, and place. While standard Cartesian representational methods rely on predetermined and consistent geometric symbols and spatial frameworks to communicate pragmatic site characteristics across different scales, landscape collages can stimulate intuitive and experiential interpretations of sites, subjects, and contexts. Collage-making incorporates personal and collective reflections on lived experiences, enabling designers to layer and map various, even contradicting, contextual temporal and spatial elements informed by memory and site experiences. For example, interpretations and emotions associated with the spatial concept of 'border' are evoked differently through juxtaposing atmospheric fragments in a collage compared to geometric compositions in maps. Collage-making can foster a profound, intuitive understanding of various *relationships* and *orders* evolving within and beyond landscape sites and projects by juxtaposing fragments that evoke emotions tied to contextual conditions.

Chapter Two examined the role of phenomenological and hermeneutical interpretations of time and duration through collage-making. It outlined eight interconnected criteria — interpretations of space, emotions, references, contexts, methods, aspirations, audience, and neutrality-priority paradox — demonstrating the potential of eidetic intuitions and interpretation methods in landscape architecture. This chapter highlights *spatial order*, emphasizing how different design media can suggest, prioritize, or disregard intuitive interpretative paths. With its ability to communicate diverse notions of spatial order through subjective and temporal fragments and juxtapositions of space and time, collage presents a uniquely multi-faceted and immersive approach to understanding site contexts and subjects. Chapter Two demonstrated this mental and physical engagement with the subject and context through two fundamentally different collages — Corner's temporal maps (1996) and Picasso's *Guernica* (1937). This personal engagement with media and context challenges conventional representational methods in landscape architecture, which can produce disinterested and impersonal depictions of space through geometric conceptions of time and duration, potentially limiting one's atmospheric perceptions of space and context. This chapter underscores the spatial-temporal dynamics between atmospheric and geometric spatial perceptions by examining the Cartesian grid and collage as representational tools.

Critical to this thesis are multiple ideas in collage and Midjourney renderings, as in the lived experience of landscape spaces. The eight intuitive and temporal collage interpretation criteria enable designers to imagine eidetic measures and physical stimuli as equal conduits for multiple subsequent interpretations. However, the illusive connection between the first two criteria — the influence of spatial interpretation on emotion and vice versa — requires further examination because perceptions and representations of space and time can influence subsequent interpretations of place, memory, and subject/context.

Landscape aesthetics, which encompass judgments of various landscape stimuli, play a pivotal role in the field of landscape architecture. Landscape aesthetics serve as a bridge between ideation and representation, facilitating the communication of emotionally charged contextual notions and physical conditions. These spatially and temporally intertwined ideas involve diverse interpretations of place-specific criteria as they unfold in space and time, manifesting as cultural, natural, political, social, and vernacular conceptual and theoretical orders. Landscape representations communicate these emotionally charged contextual notions, physical conditions, and ideas and interpretations of spatial order exchanged between people and places. However, the temporal and experiential groundings underlying this communication remain implicit in conventional representational methods.

Recent theories of landscape architecture, such as those proposed by Corner (2014) and Cureton (2016), explain how Cartesian and non-Cartesian philosophies behind spatial representational methods extend our understanding of what landscapes are and what they can do for people. Cartesian measures, which include geometric and geographic criteria intrinsic to the Cartesian grid, can effectively communicate objective data through traditional representational methods like maps and plans. However, it is challenging to convey the more immediate, subjective, and temporal interpretations which emerge through the eidetic synthesis of these two distinct temporal and spatial measures. Here, 'eidetic synthesis' refers to combining these two measures to create a more comprehensible understanding of a landscape**.** The latter includes how geometric criteria and orders imply social-political ideas, influencing spatial experiences and interpretations.

Corner's conclusion that a deeper understanding of the factors shaping a landscape enhances the relevance of our landscape architecture is a significant point. His writings and collages provide a pathway for exploring the complexities of a specific site, emphasizing the importance of an in-depth study of the contextual relationships between spatial and temporal factors that shape lived experiences within sites. His examples from the American landscape, demonstrated through temporal maps and photomontages,

signify the eidetic synthesis of Cartesian and non-Cartesian conceptions of space and place (Corner and MacLean, 1996). Eidetic measures, expressed through words informed by memory (synoptic measures) and image juxtapositions (collages), serve as site-specific 'discovery measures' or tools for interpreting the site and its representations. They stimulate plural yet grounded interpretations of context, shaped by the site's social, historical, vernacular, technological, and political conditions.

The geometric grid and Euclidean perspective are deeply ingrained in conventional landscape design software and media, defining symbols and scales in 2D and shaping temporal perceptions in 3D renderings. In contrast, multisensory representational methods like collage can communicate *multiple* durations — 'affect images' and intentional-unintentional episodes and hierarchies of spatial perception. Both collage and Midjourney convey *indivisible* space-time perceptual episodes: collage evokes temporal and memory-informed interpretations of space, time, and subject/context through image fragments and juxtaposition, while Midjourney achieves this through descriptive words provided by the operator. Regardless of the medium, emotions and interpretations of space and time shape how visual outcomes are perceived.

3.2 Perception of Landscape Architectural Design Media

Landscape ideas and spatial measures activated during site visits evoke both topological and topographical perceptions and site-specific spatial interpretations. In the early stages of the conventional design process (survey, analysis, and design), the findings from site visits transform into survey documents through various visual and verbal means, transforming the experience of environments and atmospheres – *space* – into an object of study. Spatial objectification is initiated by grounding spatial and temporal complexities of space in the surveying stage when topological and topographical perceptions of sites transform into symbolic-geometric representations of geographic maps and plans (Braun and Knitter, 2016). The Cartesian grid within conventional maps and the Euclidean perspective within spatial renderings may impose a geometric order, a Cartesian rationale, on the perception of surveyed sites. How one sees and grounds spatial data influences the analysis and design stages, influencing both the spatial configurations and the temporal evolution of design decisions.

Corner (2014, pp. 305-315, 241-253) and Cureton (2016, p. 1, 93, 206) suggest that geometric, natural, and social measures intrinsically present in landscape spaces have 'agency' (influence) and 'valence' (impact), enacting one interpretation criterion as a conduit to communicate other criteria. Spatial

measures, or ways of understanding space, unfold and transform with time (Tuan, 1979). This characteristic of landscape spaces poses a significant challenge in communication, particularly in conventional landscape representational methods (Corner, 2014). The complexity lies in communicating temporally dynamic spatial criteria, which requires careful consideration and innovative approaches. However, the potential of AI technologies to overcome these challenges is promising. For example, Midjourney can generate images by constructing multiple networks between different temporal ideas and memories of space/subject through verbal descriptions. Chapter Two argues that the imaginative formation of these descriptions can reflect the ideas generated during collage-making and reading.

The creative freedom offered by collage and the structural constraints imposed by the Cartesian grid are vital for effectively communicating landscape architectural ideas. Similar to Cubism, an essential aspect of landscape representation is that the conception of space – how space is imagined and measured – can act as a context to deliver latent spatial ideas (Corner and MacLean, 1996, p. 41, 69, 97, 121, 149; Cureton, 2016, p. 206). The geometric spatial conception of software may provoke Cartesian measures and pragmatic ideation frameworks, and phenomenological spatial conceptions in collage may prioritize bodily-engaged temporal measures through intuitive contextual ideas. Examining case studies that combine conceptions of space and temporal interpretations of subject/context is germane to understanding this connection.

Cubism revolutionized conventional spatial conceptions that had dominated since the Renaissance, challenging traditional perspective (Shields, 2014, pp. 3-4). Cubism had a profound role in the later modern arts. It inspired architecture, city planning, and landscape architecture in various ways. For example, the conception of the modernist grid is an instance of an artistic concept, de Stijl (the style), manifesting in architecture and city planning. Sadler illustrates how Mondrian's paintings presented a geometrically defined conception of space that, when applied to the built environment, as the urban grid, provoked criticisms by members of the CoBrA, seeing it as "the regulative practices of the state" (Sadler, 2005, p. 93; 1998, p. 7). Extending to how space can be perceived or controlled, the avant-garde movement Situationist International (SI) after the 1950s and others, such as Superstudio after the 1960s, challenged conventional maps to highlight the ingrained political orders within Cartesian-capitalist maps (Debord, 1967, trans. by Knabb, 2014; Shields, 2014, pp. 106-108; Lampariello, 2016).

Conventional maps based on the Cartesian grid are rooted in positivism and often constrain alternative bodily-engaged, temporal conceptions of space. As discussed in Chapter One, James Corner's collages in *Taking Measures Across the American Landscape* (Corner and MacLean, 1996) demonstrate how an

eidetic synthesis of Cartesian spatial measures with temporal and experiential qualities of space can evoke pluralistically rich spatial interpretation methods. He argued that this synthesis conditions and shapes how we conceive space and influences our imagination, interpretation, and representation of landscape architecture (Corner, 2014). Corner's collages relate to post-1950s avant-garde groups, challenging predetermined representations of space and spatial order.

Introducing highly preconceived AI models in Midjourney (and similar text-to-image engines) to landscape design processes may complicate and distort the communication of ideas and concepts that are contextually situated, like the case studies above. Since Midjourney relies on descriptive inputs, examining the relationship between interpretation methods that are emotionally charged and those that implicitly or explicitly signify preconceived spatial order, such as grids and other geometric shapes embodying Cartesian certainty, becomes essential. To do so, an investigation of how collage functions as an ideational framework and tool to evoke temporal interpretations of space and subject is vital. The examples studied in this chapter aim to reveal the communication dynamics and challenges between spatial interpretation and representation methods.

3.3 Cubism

Cubism is an early 20th-century art movement that resisted traditional perspectives, revealing the temporal presence of familiar scenes and still objects in our minds through intentionally distorted depictions of space, time, and familiar forms. Cubist paintings operate through contingent fragments and silhouettes and evoke a sense of space intrinsically tied to temporal experiences. Collage was a critical stage within this movement, serving as both a space and a tool by which artists could suspend the expectations of painting by incorporating non-painting materials. Collage played a crucial role in conceiving and expressing the desired qualities of frontality and flatness, evoking a suspended familiarity with space and painting central to Cubism. This flattening and frontality is also evoked through the monitor screen, provoking the user, viewer, or software operator to reflect on described and depicted subjects and contexts intuitively.

Picasso's Cubist paintings synthesize fragmented characteristics of objects, subjects, and spaces, engaging the viewer by invoking temporal perceptions, such as the passage of time and the changing nature of reality, and encouraging speculation about the painting.

The transformative distortion of spatial conception in Cubism had a profound impact on modern architecture, as examined in Jennifer Shields' *Collage and Architecture* (2014). She suggests that architecture was significantly influenced by Cubism and the subsequent artistic movements it influenced, including Purism, Constructivism, Suprematism, and Dada, to name a few. Shields (2014, p. 32, 63, 97) argued that these artistic movements inspired new interpretations of *order,* including ideas of 'geometric' and 'social'. They later inspired post-1950s avant-garde movements such as the Situationist International (SI).

Architecture in the early to mid-20th century reflected Cubism's concepts to articulate spatial order and temporality. Le Corbusier's architecturally inspired paintings, which demonstrated an "interest in temporal conditions of simultaneity as investigated by the Cubists" (Shields, 2014, p. 32, 29-33), played a crucial role. His paintings, through forms and compositions reminiscent of Cubist aesthetics, effectively isolated and communicated the phenomenological experience of architectural space. In contrast, his architectural projects [1] prioritized utility, emphasizing function and the human experience of space and time. These projects embodied new-era connotations, such as mass production, machine aesthetics, and the use of concrete.

This spatial and temporal difference and separation between the artistic idea and the architectural technique and agenda, which sought industrial standardization, introduced a new geometric order in Le Corbusier's architecture. His human-scale figure and the grid, or *Le Modulor*, were the conceptual scaffolding to realize pilotis, free floor plans, and roof gardens. He envisioned an architecture that echoed 'the engineer's aesthetics,' and evoked the feeling of 'the pure creation' of 'the architect' (Le Corbusier, 1923, p. 25). He suggested that *Le Modulor* could provide a *universal order* or way of seeing architecture *temporally* that is rational, functional, and aesthetically pleasing. Cubism played a significant role as a method to synthesize spatial and temporal perceptual measures, particularly in shaping Le Corbusier's architectural principles.

The spatial manifestation of Piet Mondrian's (1872-1944) grid in modern city planning and Le Corbusier's *Le Modulor's* strategy, a spatial variation of the grid, highlight the contrast between architecture and

[1] Le Corbusier's projects "like Villa Stein in Graches, France (1927) and the Unité d'Habitation in Marseilles, France (1952) … exemplify a spatial compression through frontal perception and require the active engagement of the occupant in interpreting the spatial complexities" (Shields, 2014, p. 33). This departure from traditional architectural principles, which integrated form, beauty, and function, became particularly evident in later modernist movements characterized by the International Style formalized through CIAM charters (Congrès Internationaux d'Architecture Moderne) (Sadler, 1998; Mumford, 2002).

painting's interpretation of Cubism's conception of space (Rowe, 1987, ed. 1996, p. 171; Shields, 2014, p. 32). Shields (2014, p. 30) emphasizes this difference by asserting how Le Corbusier was inspired by the regulating lines within Juan Gris's Cubist paintings and that "Despite the strong Gestalt of Le Corbusier's architecture, simultaneity and transparency are explored in figure/ground dialogues within the architecture itself" (Shields, 2014, p. 32).

In the arts, Clement Greenberg's (1959, ed. 1961) and T.J. Clark's methods of interpretation (1999; 2013) contrast each other, with one more formal and the other more phenomenological and contextual. Both are essential in interpreting collage within Cubism. From Shields' *Collage and Architecture* (2014), which investigates prominent architects of the 20th century, one can deduce that architecture went on using Greenberg's more formal, more objectified approach to collage. In contrast, Shields argues that the landscape architecture of Corner, Mathur, and da Cunha utilized the contextual-phenomenological approach to collage (Shields, 2014). It can be inferred that landscape architecture uses Cubism's essential idea of seeking accurate spatial-temporal qualities of subjects and spaces (Clark, 2013).[2]

The formal and contextual-phenomenological approaches to landscape collage are vital to enabling ideation dialogues. These approaches can form a foundation for understanding order in both spatial arrangement and cognitive processes, including objective and subjective spatial ideas and interpretation measures. Cubism and collage, in particular, play a crucial role in intensifying the communication of temporal ideas about space and subject. They achieve this by distorting perspective in paintings, the conventional order and expectation from spatial representations.

The space of Cubism shattered the traditional perspective of the Western pictorial tradition, which had previously anchored the impression of space and time.[3] Pre-Cubism and post-Renaissance perspectival

[2] This assertion is evident in Dieter Kienast's landscape collages, studied as "subjectivism and uniqueness in landscape visualization" in Wilk's study (2021, pp. 180-182; Freytag, 2021; Kienast, 1997), and Corner's eidetic collages, studied as 'landscape measures' (Corner and MacLean, 1996).

[3] Evidence indicates that late 19th and early 20th-century paintings represented temporal qualities of subjects, reflecting the era's interest in human perception, as explored in the philosophies discussed in Chapter Two. The proliferation of cameras after 1850 might have played an essential role in transitioning from depicting perspectival reality to depicting spatial temporality, which only humans could register from space (Wilk, 2021, p. 40). It is argued that Japanese woodblock prints also influenced the trend of seeing the impression of light and colour on things, inspiring many European painters (Abou-Jaoude, 2016, pp. 57-58; Napier, 2007, pp. 40-41). Painters such as Pissarro and Monet made temporality a central theme in their art, employing various techniques to emphasize spatial impressions (Clark, 1999). Cézanne furthered this endeavour by focusing on forms and structures, moving toward a more abstract use of colour and perspective. Despite such innovations, these painters still followed the perspectival-atmospheric tradition.

paintings and sketches depicted space and time as static and fixed, frozen imagery.[4] Both Greenberg and Clark emphasize the temporal difference between Cubism and traditional paintings. Greenberg saw Cubism as a celebration of the flatness of paintings, leading to purer and more modern forms of artistic expression (Florman, 2002, p. 64; Greenberg, 1965, ed. 1984, p. 6). However, Clark saw Cubism's intentional distortion of space as a signifier of a more profound idea: the *phenomenological* experience of Cubist painting is key to perceiving temporal exactitude and intensity. This phenomenological approach to interpreting Picasso's paintings is particularly evident in Clark's book, *Picasso and Truth* (2013), and in the chapter on *Guernica* (1937). Examining collages' role in high Cubism is crucial for understanding Clark's approach to interpreting the mural.

3.3.1 Collage in High Cubism

High Cubism, the period between 1907-1914, saw the Cubist masters Pablo Picasso (1881-1973) and Georges Braque (1882-1963) exploring the *illusion* of flatness, and by 1911, moving on to creating accurate and unmistakable *representations* of flatness in their paintings (Greenberg, 1959, ed. 1961, pp. 72-74). They did so by devising Cubism as a style or visual language (Clark, 1999, p. 223).[5]

Early Cubism (1907-1912) is called analytical Cubism when Cubist paintings evoke illusions of flatness (Greenberg, 1959, ed. 1961, p. 70). Characteristically, analytical Cubist paintings are monochrome, using limited colours, with repetitive interlocked lines, shapes, and shades, intentionally implying sculptural illusions. The intention is to render "*sculptural* results by strictly non-sculptural means"; in Greenberg's thinking, the sculptural illusions in a non-sculptural medium intensified, declared illusions of flatness as an aesthetic feature in Cubist paintings (Greenberg, 1959, ed. 1961, p. 71). Greenberg cherished Cubism as a 'self-critical' art (Florman, 2002, p. 63). He found Cubism's agenda toward communicating 'flatness' in paintings to contribute to modern art's 'purity' (Greenberg, 1965, ed. 1982, p. 6; Florman, 2002, pp. 63-64).

Late Cubism (1912-1914) is referred to as synthetic Cubism, and the transition period was initiated when the self-declaring flatness of analytical Cubism became a limiting factor, leading to abstraction

[4] A constructed 2D depiction of 3D space, or "… the strange fiction of European painting since the renaissance called the 'picture plane'" (Clark, 2013, p. 156).

[5] Style indicates qualities that can be reproduced, and language implies a common ground in semantics appropriated by a collective of people. However, the primary sources on Cubism, like *Farewell to an Idea* (1999) by T.J. Clark, criticize describing Cubism as a style and language for reducing its achievements, descending them to, using Florman's words, "relatively trivial interior decoration" (Florman, 2002, p. 75).

(Greenberg, 1959, ed. 1961, p. 78). The risk of abstraction and the quest for temporal certainty in representing flatness led to several approaches, the most substantial being collage. With its transformative physical presence, collage aimed to create unreconciled illusions of flatness (Greenberg, 1959, ed. 1961, p. 75). The masters initially added 'literal' surfaces to the canvas, such as sand, stencilled letters, cloth, and bits of newspaper, to intensify these illusions of flatness (Greenberg, 1959, ed. 1961, p. 74).

Collage played a different role in transitioning from self-declaration to unreconciled illusions of flatness. The collage's "corporeal presence" pressed everything else on the canvas back in a perspectival depth but also pulled forth onto an illusional flat surface (Greenberg, 1959, ed. 1961, p. 75). In order to return to purity in painting, collage pieces were eventually replaced by pure surfaces and shadeless colours. Thus, shades and shadows characteristically became independent flat surfaces in synthetic Cubism. The effect was spatial. Space becomes an assertive synthesis of pure, flat shapes in synthetic Cubism. There are no shades, shadows, or three-dimensional volumes; the illusions of flatness create a three-dimensional metaphoric space in the observer's eyes, called *optical* illusions of flatness (Greenberg, 1959, ed. 1961, p. 77).

Picasso further explored spatial flatness in his 'still life in front of a window' paintings in the 1920s (see Clark, 2013, pp. 59-111). Greenberg and Clark agree that collage was pivotal in the transition from analytical to synthetic Cubism, saving Cubism from becoming a chaotic and trivial abstract art. For Greenberg (1959), collage within Cubism facilitated seeing optical illusions of flatness as a unique quality within paintings. Clark (2013) interprets collage and synthetic Cubism as Picasso's unique representation of *space*, depicting it as a *room.* This approach was part of a broader trend in early 20th-century art, where interior space was used as a battleground between avant-garde artists and bourgeois encroachment. This artistic strategy challenged prevailing notions of possession and belonging, critiquing the materialistic values and interests of the time. In Figure 3.1, Picasso reveals spatial thresholds and the contingency between private space and its objects, portraying an 'intimate' world, and public space or elements, such as the sky, that *intrude* upon the private room. Collage and its signifiers in the 1920s were vehicles to provoke and intensify the interdependency between personal perceptions and the public understanding of this feeling of intrusion — a concept that simultaneously exists at the intersection of the temporal and private, and the spatial and public.

Figure 3.1 Mandolin and Guitar (1924), by Pablo Picasso (Public Domain)

3.3.2 Collage in Guernica

Guernica (1937) is a significant work by Picasso that showcases the fusion of media and ideas of space and time. It engages temporal and historical interpretations, inviting viewers to participate actively in the narrative. Drawing from Greenberg's formal account of high Cubist paintings, one can deduce that the optical illusions of flatness merge and intensify the temporally charged fragments of public horror in *Guernica*. This synthesis — rendering 'space' as "the making of an imaginatively habitable three dimensions, one having a specific character, offering itself as a surrounding whose shape and extent we can enter into" — is Clark's phenomenological account of the mural (Clark, 2013, p. 281). He interprets such fusions between the canvas and the viewer as an intentional and informed choice to deliver "exactitude," proximity, intimacy, and presence (Clark, 2013, p. 58). Clark asserts that Picasso sought this 'exactitude' by communicating what spatial idea or temporal feeling is at stake when ideas become paintings — "For vividness, Picasso knows, is something too easily achieved in painting, and too little susceptible to criticism or correction" (Clark, 2013, p. 233).

Clark (2013, p. 235) argued that Picasso and Braque's paintings during high Cubism (1907-1914) influenced Picasso's conception of space in *Guernica* (1937). The space in the mural feels like a room space.[6]

Figure 3.2 Guernica (1937), by Pablo Picasso (Public Domain)

In *Picasso and Truth* (2013), Clark argues that the paintings of 1920-1930 represent objects and human figures occupying a space characteristic of a *room*. The paintings manifest familiar but distorted room space, a self-declaring space made of belongings, objects, and a space where humans move around and embody ideas. The distortion of objects to intensify their phenomenological and durational presence is reminiscent of high Cubism, where Picasso and Braque aimed to revive optical illusions of flatness. This is evident in the oscillating telescoping space between the spectator and the literal/pictorial flatness (Greenberg, 1959, ed. 1961). The illusion of room space in the paintings created between 1920-1930, reveal the necessity of space to define matter or objects. In Clark's descriptive language, implicit spatial illusions of room space imply how one can lose and simultaneously intensely perceive the sense of belonging of objects or of meanings (Clark, 2013, p. 27). The room space, for Picasso, staged "… the real-world condition under which appearances became substances" (Clark, 2013, p. 150).[7]

[6] The synthesis between the Cubist technique and the room space is the essence of T. J. Clark's book, *Picasso and Truth* (2013). Clark wrote about several aspects and characteristics of Picasso's paintings from 1900 to 1937, as evident in the book's chapters: Objects, Room, Window, Monster, Monument, and Mural. However, when reading *Picasso and Truth* (2013) and *Farewell to an Idea* (Clark, 1999), it becomes evident that communicating, distorting, or challenging the temporal qualities of Picasso's preferred space, the room space, is a key to understanding the last chapter about *Guernica* of 1937.

[7] The complete quote is: "The room for the Cubist was what the river surface had been for Monet or the village street for Pissarro: the real world condition under which appearances became substances (again in Wittgenstein's sense)— where they took a non-arbitrary form" (Clark, 2013, p. 150).

In *Guernica* (1937), the bombardment of public space, scenes of massacre, and the canvas's resistance to presenting a conventional public space as a flat room on the verge of collapsing, contributes to the delivery of temporal ideas of horror and loss. Clark (2013, p. 136, pp. 235-282) argued that, in addition to how the collapse of space disrupts and resists coherent spatial perceptions, the horror is spatially present in time because it is temporally brought to the front and close to the observer. Inferred from Clark's book, *Guernica* is an instance where both high Cubist techniques, including collage and the intentionally distorted communication of Picasso's preferred space, the room, work to communicate the subject matter of the painting, the horror in the Guernica event of 1937, as a temporally present idea and *guide* to interpretation.

During high Cubism (1907-1914), Cubist space was Picasso's preferred framework to deliver a temporal illusion of exactitude (Clark, 1999). A painting, being a representation, is inherently an untruth and does not reflect reality. However, intentional spatial distortion can convey or hint at aspects of truth, such as temporal presence and intensity, something perceived only by the mind. Picasso pursued this idea in his paintings around 1907, communicating spatial illusions of flatness during high Cubism (1907-1914) and evolving to temporal exactitude in representing the threshold between space and spatial belongings in room space paintings in the 1920s (Clark, 2013).[8]

With *Guernica*, Picasso sought a highly controlled and intentional threshold. This feeling of intensity between the room/public space, acts as an *apriori* threshold, to any interpretation of its subject. This statement is based on how Picasso collaged pieces of wallpaper onto the giant mural in the late stages, later translating them into commas (dots) on the horse (Clark, 2013, p. 271). The commas, giving the impression of being made of both newspaper and wallpaper, evoke a syntax: ideas of the outside world, the horror and reality, constantly repeat here and now in front of the observer, intruding in a space that feels like a room (Clark, 2013, p. 280). This deliberate intrusion of the outside world into the observer's space is a key element in Picasso's mural.

Collage played a key role in showing this temporal exactitude. Clark (2013, p. 136) stated that collage as a non-painterly matter represents "a realm of freedom," an untruth that evokes temporal exactitude in Picasso's mind; "Untruth in Picasso is always terrible. It is a pressure from elsewhere—collapsing space,

[8] This search for temporal exactitude is also the focus of Clark's analysis of intimacy and belonging in Picasso's painting *The Blue Room* of 1901 (Clark, 2013, p. 26).

producing disfigurement. It is a condition, a fate, a thing entering the interior of the mind. This is the point—the intentionality—of the inside-outside distinction in Picasso." Clark (2013) argues that collage played a crucial role in synthesizing and engaging the outside world, newspaper or wallpaper and any other bourgeois reminder, and Picasso's Cubist-temporal conception of the room space or inside world. It signified the delicate interplay between intense spatial and temporal emotions and experiences.

Understanding Cubism is essential to grasp how design media can convey or disguise multifaceted and contextual temporal ideas, which, in turn, influence our interpretations and conceptions of space and subject. For example, 'enclosure' can mean many different things depending on the context and have multiple manifestations in landscape design. This is why examining spatial ideas in landscape and representation is important, as it highlights the rich intentionality involved in collage-making. Examining case studies that question processes of spatial conception can clarify how landscape media, such as renderings and construction documents, impact our interpretations of space and subject. The goal is to explore different ideas communicated within these documents based on spatial experiences within landscape spaces. Understanding the differences between the influence and application of collage in architecture and in landscape architecture is crucial as it can reveal how each contribute to interpreting and representing spatial design ideas.

3.4 Collage in Architecture

In *Collage and Architecture* (2014), Jennifer Shields documented Alfred J. Bar's diagram of how Cubism relates to other streams of painting (Fig 3.3). Similarly, Shields charted several architectural figures, landscape architects, artists, and utopian movements who used the Cubist concept of fragmented, non-perspectival, contingent space to produce collages that reveal temporal relationships between spatial structures and qualities (Fig 3.4).[9]

Shields cites numerous architects, including Le Corbusier, Mies van der Rohe, and Daniel Libeskind, who use collage to convey 'phenomenological' attributes within architecture's immediate experience. These individuals used collage as a medium to explore and convey intentional temporal spaces, such as a

[9] For example, Shields highlights Eduardo Chillida's (1924–2002) collaboration with architect Luis Peña Ganchegui (1926-2009) in their *Comb of the Wind* (1977) installation on the edge of the Bay of Biscay in San Sebastián, Spain. This installation illustrates spatial and temporal tensions between three sculptural elements: two that frame the ocean's horizon and a third positioned "on the edge of the town's boundary" (Shields, 2014, p. 45). The work reveals the spatial and temporal contingencies shaped by the architectural and philosophical concept of 'boundary.' It "implies boundaries to the vast context of the ocean while framing the observer's experience of the void" created by the sculpture (Shields, 2014, p. 46).

palimpsest, to evoke temporal ideas like ambiguity (Shields, 2014). Spatial-temporal attributes such as 'formal-phenomenal transparency, palimpsest, and ambiguity,' are prevalent in Shields' descriptions of architectural collages. These bodily-engaged interpretations are evoked through both architectural elements like forms, facades, and plans and the interplay of architecture's materiality, construction processes, and representations. Their fragmented representations through collage emphasize phenomenological and experiential perceptions of time and space through columns, volumes, and voids (Shields, 2014, p. 11, 71, 77-78, 81, 94, 105).

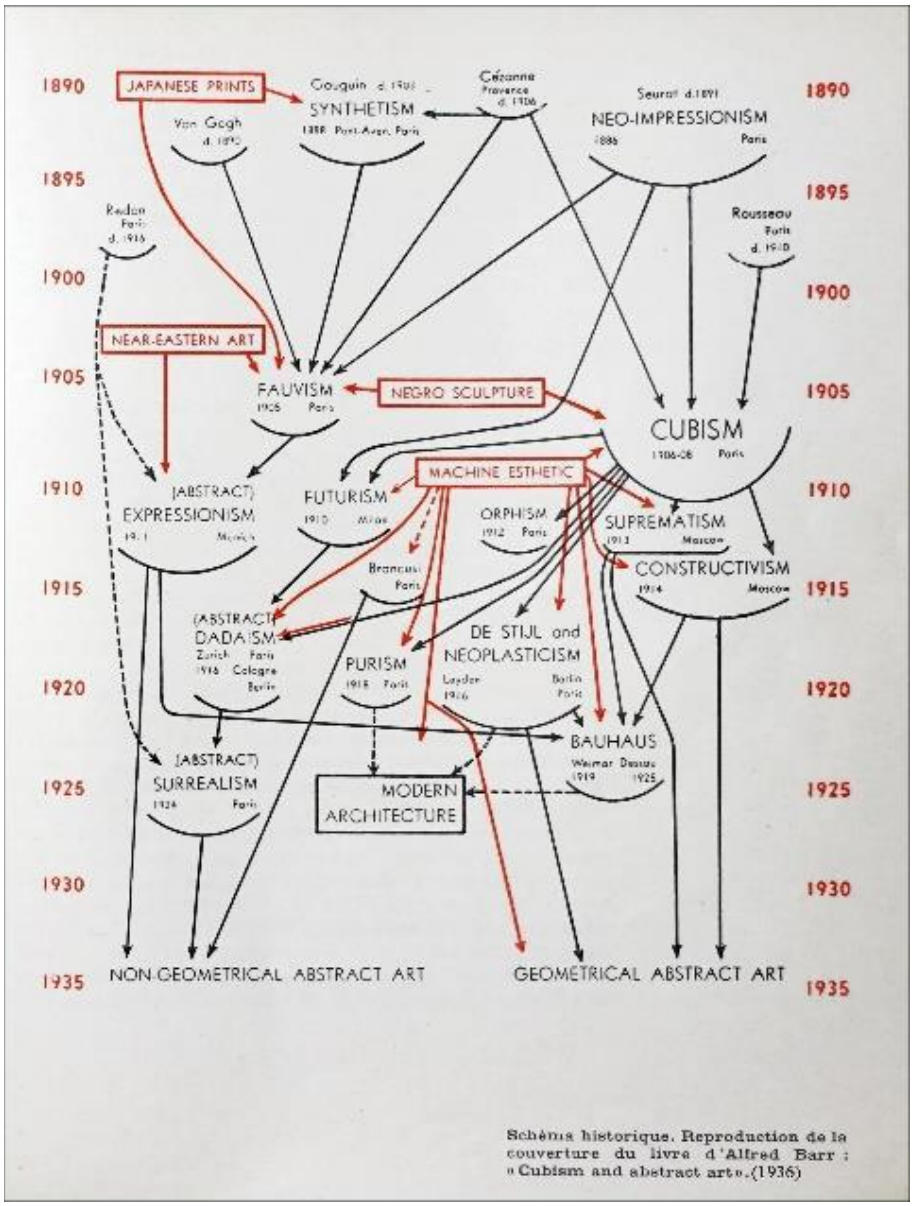

Figure 3.3 Alfred J. Bar's diagram of the Cubist movement (Public Domain)

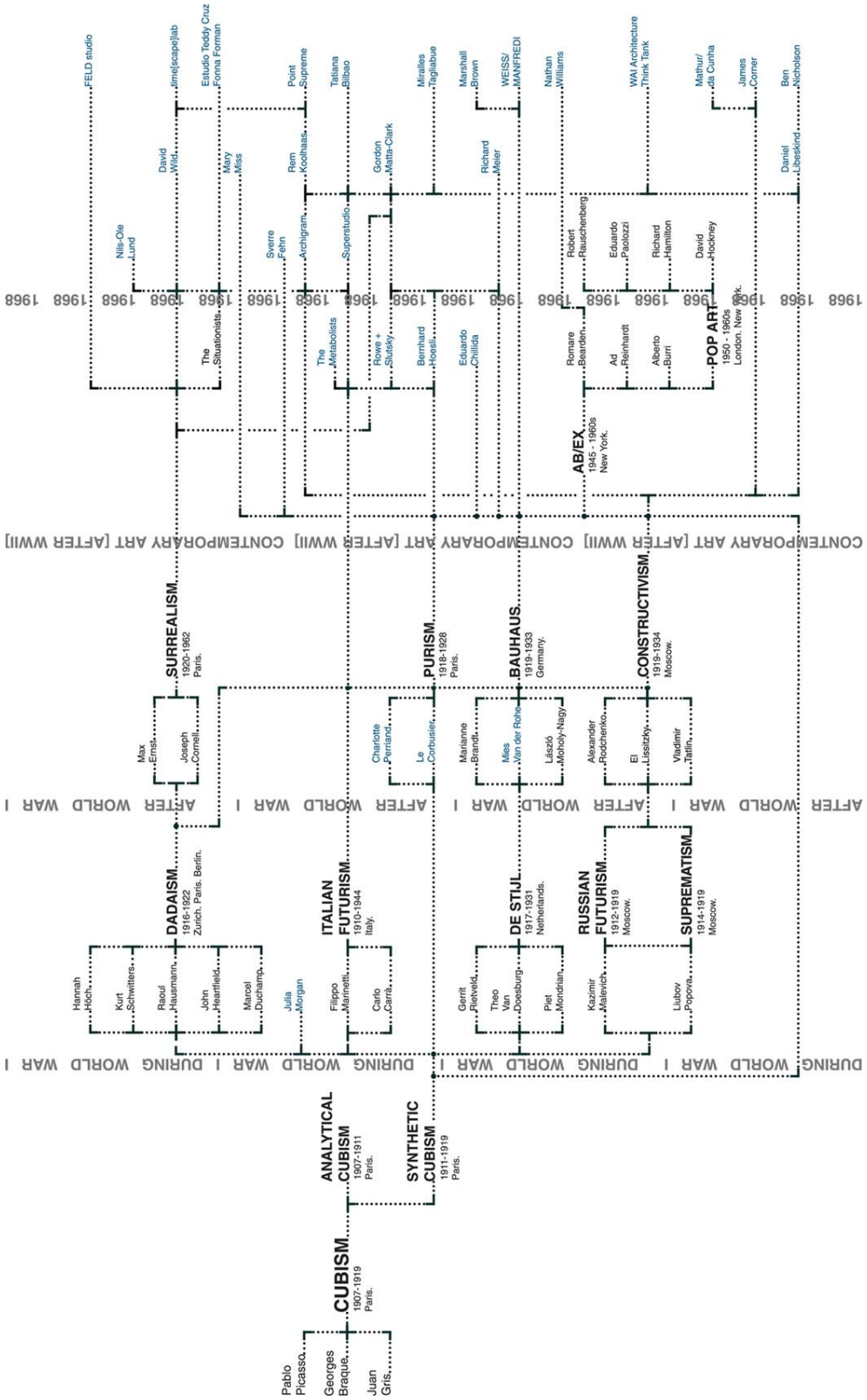

Figure 3.4 Jennifer Shields' Diagram of the role of Collage in Architecture. Taylor and Francis (CCC License ID: 1136640-1)

Many modernist designers and commentators' responses to architectural space were more concerned with form rather than meaning or context (Treib, 1995; Corner, 2014). According to Shields, spatial-temporal ideas such as phenomenal transparency, ambiguity, figure-ground, and distillation suggest the influence of Cubism on Le Corbusier, who later devised "purism as a variation of Cubism" (Shields, 2014, p. 30). However, given the focus of architecture on the utility and practicality of buildings, architectural spatial conception adopted more determined geometric forms and approaches. Shields argues that Le Corbusier's "*Le Modulor* as system proportion derived from the dimension and proportions of the human body" reflects his interest in 'geometric order' (Shields, 2014, p. 30). This interest in geometric order was inspired by the works of Juan Gris and his "regulating lines and grids, reducing objects to simple geometric forms mediated by the established order" (Shields, 2014, p. 30). Significant here is that Shields noted that "Le Corbusier recognized the disconnect between the objectified system of spatial measure and the human experience" (Shields, 2014, p. 30). This disconnect has significant implications for architectural design, particular in terms of scale, the modernist connotations of *Le Modulor* and the grid (Le Corbusier, 1950; 1955; Cohen, 2014). Evident here is the identical Cartesian and geometric measure that informs *Le Modulor* and the rational grid.[10]

Different literature suggests that the grid, or any other geometric concept, has a rich historical lineage and can act as a venue to imply social order (see Tuan, 1979; Alexander, 2002; Braun and Knitter, 2016; Corner and MacLean, 1996). For example, one can trace the genealogy of the grid in Parc de La Villette (1981-82) to the Constructivists of the early 20th century (Shields, 2014, p. 67) or even earlier, to French formal gardens (Wilk, 2021). The Constructivists used geometric order to inform and inspire new forms of social orders. The same could be argued for James Corner's collages, which communicate how the Cartesian measures intrinsic to the Jeffersonian grid, geometric order, in the United States contributed to different social and political ideas (Corner and MacLean, 1996). While the formal and phenomenological application of Cubism in architecture focuses on geometric forms and structures, Corner's collages signal contextual layers through different ideas of order embedded within sites over time.

[10] Sadler (2005, p. 93) made a similar argument, writing, "One of the more esoteric modernist debates of the 1950s (and 1960s, when it was picked up in conceptual serial art) had asked whether a composition is ever complete. The designs of Mondrian and Mies van der Rohe implied infinite extension, it was suggested: many of Mondrian's orthogonals did not stop short of the canvas but pointed to the space outside; Mies's partitions hovered in space above potentially infinite grids, as though in temporary formation." The architectural interpretation is Mies's 'endless architecture,' as "a design method making use of modular elements repeated in a building to suggest imminent extension," which perhaps implies a non-Cartesian, phenomenological, and existential sensations. This concept was later further developed through the principle of 'indeterminacy' in architecture (Sadler, 2005, p. 93).

Reviewing the case studies presented in Shields's genealogy for collage in *Collage and Architecture* (2014) and investigating the literature on collage, including the avant-garde activists of the 1950s and 1960s, this thesis posits that collage was more than just a tool or experimental space. It was a means to challenge spatial orders implied in conventional representational methods. Compared with other avant-garde movements, the Situationist International (SI) stands out. The SI used collage to reveal the implied ideas of preconceived social and political orders embedded in conventional maps and plans of cities like Paris. These works communicate eidetic and intuitive, bodily-engaged interpretations of spatiality and temporality and open up new avenues for exploring space, subject, and context. The concept of order and its diverse manifestations is crucial for interpreting landscape architectural documents and designed physical spaces. This synthesis, made possible through collage representations and examples, underscores the immediate and lasting influence of context-specific spatial measures and orders on designers' imagination about a site's lived experiences.

3.5 Collage in the Built Environment

Like the post-Cubist Dada figures,[11] the mid-20th century avant-garde movements, such as the Situationist International, Superstudio, and Archigram, played a critical role in challenging ideas indicative of implied social and political order (Shields, 2014, pp. 63-66; de Zegher and Wigley, 2002). These groups used collage to communicate utopic ideas in a time of heightened social issues and the need for alternative ways of living after WWII (Shields, 2014; McDonough, 2002, p. xvi).[12]

Visions for post-war urbanism were synchronic with critiques of modernist cities (Chase, 2015). The modernist spatial vision, a design approach that prioritizes function and efficiency over aesthetics, primarily focused on architecture, beginning with the "minimum dwelling" theme at the first CIAM in 1928. It subsequently suggested ideas for city planning, culminating in the concept of the "functional city"

[11] The Dada movement, including Marcel Duchamp, Tristan Tzara, Francis Picabia, Hans Arp, and others, emerged as a response to the societal norms and values that led to the devastation of World War I. These Dada artists "challenged traditional notions of art and aesthetics" with their extreme ideas and sought to disrupt established systems of meaning, including those related to social and political order (Prager, 2013, p. 239, 244).

[12] Utopic reactions were not unprecedented. Sadler notes that Andre Breton, the front figure of Surrealism (1920-1962), had already reacted to Le Corbusier, who had a leading role in CIAM, asserting that "modernism functionalism was 'the most unhappy dream of the collective unconscious'" (Sadler, 1998, p. 8). In the second half of the twentieth century, modernist architecture and city planning projects were accused of not responding to everyday life concerns. De Certeau's notion of 'everyday life', Lefebvre's 'social space', and Sartre's existentialism undoubtedly inspired criticism against spatial-cultural hegemony.

in their Athens Charter of 1933 and urban-scale ideas in subsequent CIAM meetings (1933-56) (Chase, 2015, p. 5; Kallis, 2021, pp. 125-145). The role of the modern urban grid that could prioritize service-laden rather than experience-laden designs, functionalism as the implied desired attitude, and high-density urbanism as the spatial vision, is evident here.[13]

In contrast to the City Beautiful movement in late 19th-century America, which focused on beautifying streets, boulevards, plazas, and public buildings through neo-classic designs (Wilson, 1989), modernist spatial vision was concerned with function. In contrast with the Garden City movement in the United Kingdom (UK) of the same era, which proposed a community-to-land proportion and desired public access to natural elements (Howard, 1902, ed. 2006), the modernist vision proposed high-rise buildings imposed in parks. Examples like Le Corbusier's machine aesthetics in *Unite d'Habitation*, Chandigarh, or *Ville Radieuse* (zoned city made of high-rise buildings with efficient transportation systems) illustrate different-scale functionalist design measures. Modernist city planning forwarded "radiant garden city beautiful" amalgams, according to Jane Jacobs (1961, p. 420). Jacobs argued that the design message of this approach was high-rise blocks that 'dulled' the life qualities seen in urban fabrics of the past, forwarding uniformity "sealed against any buoyancy or vitality of city life" (1961, p. 13). Such critiques were not without precedent. Camillo Sitte's book, *City Planning According to Artistic Principles* (1889, tr. 1915), had earlier criticized new city planning for being service-led or traffic-led instead of being informed by the experience of pedestrians in plazas, public squares and spaces. Sitte's work provides a key to understanding the role of spatial ideas, including the grid, which informs design moves and subsequently public behaviour. The Situationist International (SI) essentially returned to these experiential aspects to resist predefined spatial boundaries and representations dictated by authorities, emphasizing spatial ideas implied in conventional maps.

[13] In the first half of the twentieth century, the idea of geometric order was initially informed by architectural techniques and by the early modernist figures Walter Gropius, Le Corbusier, Ludwig Mies van der Rohe, and Frank Lloyd Wright, among others. Between and especially after the two World Wars, architects, city planners and politicians logically deduced or desired order through rationalism and functionalism, as well as the speed of production to rebuild the ruined cities. The CIAM meetings held between 1928 and 1959 worked to optimize modernist spatial and functional design measures. The CIAM charters and their advocates were eventually accused of institutionalizing the reductive spatial order of the grid as the image and functionalist rationalist, standardized design measures as the leading idea, driver or message for modern designs (Sadler, 2005; 1998; Mumford, 2002; 2019). Landscape architecture during this period was inspired by Cubism and technology-driven modernist ideas. Some projects were seen as a self-referential work of art, as exemplified in the Garden of Water and Light of 1925 by Gabriel Guevrekian (Wilk, 2021, p. 153). Others more explicitly reflected architecture's modernist and abstract vision, as exemplified in the works of Garret Eckbo (Wilk, 2021, p. 162). Wilk (2021, p. 143, 140-164) argues that many modernist landscape architects employed axonometric perspective drawing to communicate their projects, demonstrating "the newness and progressiveness underlying the design scheme, its perceptible distance replacing subjectivity with objectivity."

A more distinguishing classification of critiques can be characterised by three groups. The first, a European group, was concerned with the subjective function of modernist architecture and included architectural figures, groups, and members like Team 10, who dismissed CIAM's reductive protocol for modern architecture, resulting in new sub-modern styles such as new brutalism (mainly in the UK, e.g., by Peter and Alison Smithson) and structuralism (mainly in the Netherlands, e.g., by Aldo van Eyck). The second group were concerned with the image and interpretations of cities. They included criticisms such as Jane Jacob's book, *The Death and Life of Great American Cities* (1961), Kevin Lynch's first book, *The Image of the City* (1960), and Gordon Cullen's book, *Townscape* (1961). The third, the neo-avant-garde anti-CIAM groups, envisioned a more radical approach. Utopia was the desired narrative driving these post-war avant-garde ideas.

These groups, which included the SI, Superstudio, and Archigram, were radical in their rejection of the established order. They neither accepted previous design measures and priorities in architecture nor relied on the city scale order of the modernist grid. *Space* was their primary concern. The opposite of order (play, freedom) and the grid (interconnectedness or the emancipating grid) became the subject matter, the critical filter, and the point of departure for envisioning their utopias.

3.5.1 The Situationists International (1957-1972)

The SI emerged from other post-war avant-garde movements such as CoBrA, the Lettrist International in France, and the London Association of Psychogeography (de Zegher and Wigley, 2002). CoBrA (1948-1951) was a collective of artists from Copenhagen, Brussels, and Amsterdam. The CoBrA members published journals such as *Reflex* (1948) and *Cobra* (1948-1951), sharing a series of writings, manifestos, and artworks promoting the elements of play and primitiveness to underscore the power of the subconscious as a tool "for social and psychological liberation" (de Zegher and Wigley, 2002, p. 34).

Three former members of CoBrA – Asger Jorn, Enrico Baj, and Sergio Dangelo – later formed the International Movement for An Imaginist Bauhaus (IMIB) (Sadler, 1998), which held exhibitions with Dadaists, Surrealists, and Bauhaus artists (Shields, 2014). Constant Nieuwenhuys, better known as Constant, was a prominent figure of CoBrA and was closely linked with Asger Jorn, who was instrumental in founding the Imaginist Bauhaus. This group, like other avant-garde artists of the 1950s, preferred a "hands-on, expressionist approach to art" (Sadler, 1998, p. 4). Another pillar of the SI was the French Lettrists in the 40s and later the Lettrist International (1952-1957). They were a group of writers, thinkers,

and filmmakers who critiqued the structures of language and later the state and system, "a conscious attempt to politicize lettrism's esoteric exploration of language" (Sadler, 1998, p. 5). The leader of Lettrist International was Guy Debord, and unlike Constant, he was more "inclined toward minimal and conceptual rather than visual" (Sadler, 1998, p. 5).

Debord was a post-Marxist and has written extensively on the implications of meanings of words on the politics of society (McDonough, 2002, p. 213, 241). In 1957, a collective effort led by Debord brought together these groups to form the Situationist International (SI), a daring political activist group critical of the state's psychological manipulation of socio-economic behaviour. The SI asserted that the state manipulates the mind through images that shape civic or collective spaces (Sadler, 1998). The SI's proposed psycho-geographic attempts through *dérive* (drifting through urban environments) and *détournement* (diverting existing images and symbols to subvert their meaning) serve as methods of resistance.

The SI had close ties with the Dadaists, in their "refusal of all the values of bourgeois society," and with the Surrealists, in their playful methods and reliance on chance in their *flâneurs*,[14] which resonates with the SI's *dérive* or drifting in their psychogeography (Debord, 1957; McDonough, 2002, p. ix; Prager, 2013). However, unlike the Dadaists and the Surrealists, the SI had a more focused socio-political agenda concerning civic space. One area of interest for this thesis is the psycho-geographical mapping of civic spaces.

Seeing freedom as a social-political idea, the psycho-geographical mapping of the SI produced an important collage, *The Naked City* (1957), attributed to Debord. In contrast, viewing freedom as a *spatial* concept that, like a play or game, can be represented in media and built in reality, this psycho-geographical mapping justified a project called *The New Babylon* by the artist-architect, Constant. *The Naked City* and *The New Babylon* are concerned with what the SI called spatial *support* for psychological behaviour or a context to ground what one deems significant in space (de Zegher and Wigley, 2002). They envisioned and called this support a "unitary urbanism" and "a social project," a space where drifting as freedom could happen everywhere, and where urban dynamics are driven by "participation," a key principle in the SI's vision that emphasizes the active involvement of citizens in shaping their urban environment, rather than a "capitalist contest for space" (Sadler, 1998, p. 117).

[14] The concept of the *flâneur*, developed by Charles Baudelaire (1821-1867) as a wanderer deeply observant of the modern city, inspired Walter Benjamin's (1892-1940) reflections on modern urban life (Benjamin, 1940; tr. 1968 by H. Zohn, p. 11, 155).

Design, as spatial or structural support, is a powerful tool for communicating social concepts. When social concepts are understood as intentional constraints or contexts, they can implicate various associated connotations, including interpretations and symbols from different times or temporalities. In design processes, landscape constraints, such as site-specific spatial measures and conditions, serve as fertile ground for communicating landscape ideas and concepts.

Understanding the societal implications of design is central for enlightenment and information. The SI's means to communicate their utopic ideas including psychic freedom, or momentum for 'revolution' in Sadler (1998), was by eliminating or narrowing what or who constitutes freedom. For the SI, it was the state and media. In *The Society of the Spectacle* (1967), Debord argued that the state transforms individuals into passive consumers, creating a *society of spectacle* characterized by a separation between people and the notion of production. Controlled from above by authorities, this system promotes consumerism and passivity through the consumption of products and notions of ownership and belonging, creating an illusion of freedom. This image of 'freedom', constructed by media-driven consumerism and controlled by the state, evokes emotions that reinforce concepts tied to spatial and material commodification — advancing the capitalist agenda. How can images convey bodily-felt emotions like freedom tied to temporal experiences and choices?

Guy Debord

As a central figure of the French Lettrist group, Guy Debord (1931-1994) left an enduring mark on the intellectual landscape. As a philosopher, author, and filmmaker, he was instrumental in shaping critical discourse against the consumerist ideals of capitalist societies, which he called 'false consciousness.' In the opening of *The Society of the Spectacle* (1967), Debord draws and builds on the materialist dialectics of Karl Marx's (1818-1883) *Das Kapital* (1867), stating that, "In societies where modern conditions of production prevail, life is presented as an immense accumulation of *spectacles*. Everything that was directly lived has receded into a representation" (Debord, 1967, p. 2). It echoes Marx, "The wealth of societies in which the capitalist mode of production prevails appears as an 'immense collection of commodities,' its unit being a single commodity" (Marx, 1867, p. 27).

Debord's concept of the society of the spectacle, a society drowned in 'false consciousness' through consumerism, implies a significant loss of individual freedom. In such a social structure, with pop art products and images as a manifestation of 'indifference' and 'dull complacency', one is merely a spectator

(Sadler, 1998, p. 19, 19-21, 43; Debord, 1967, p. 2). This psyche sees, buys, and consumes and never achieves true satisfaction, as desire is always for more. In Marxist language, humans or individuals are the producers of ideas, and when a controlling capitalist society blurs the individual's voice with false, premeditated ideas, no means of life within society belongs to the individual, and there is no freedom.[15] This loss of freedom is a grave consequence of the society of the spectacle. In other words, what makes the opposite of individuals' interest is not the interest of a collective but the interest of the state. Moreover, Debord believed that mass media was the state's tool for enacting its agenda. According to McDonough, mass media has agency in manipulating ordinary ideas "from subliminal advertising to brainwashing" (McDonough, 2002, p. xi). Furthermore, media can evoke false consciousness through "… most modern means of conditioning and illusion," deemed necessary by a controlling state, wrote Debord in *The Society of the Spectacle* (1967, trans. by Knabb, 2014, p. 55). Mass media implies notions of order.

Debord believed mass media could obscure and channel what one should value in daily life. Mass media can create a false consciousness, on the one hand, by prioritizing "subsistence," what McDonough also describes as "natural alienation," and on the other hand, by acting as a "means of unification" (1967, ed. 2014, p. 2), of consciousness, of what matters in one's life (McDonough, 2002, p. xv). In this respect, "daily life" or "ordinary life," which was an idea Debord took from Lefebvre's lectures (McDonough, 2002, p. 267), "marked a border, the 'frontier of the controlled and the uncontrolled sectors of life'—between, that is, the planned sector of production and the as yet unplanned sector of lived experience, consumption, leisure" (McDonough, 2002, p. xvi). [16] This distinction underscores Debord's concern with how everyday life becomes a site of both control and potential resistance.

Not surprisingly, creating conscious situations which could incite interpretations of freedom was a pillar of the Situationists' thinking (McDonough, 2002, p. xvi). In their manifesto, *Report on the Construction of*

[15] In Marx's words, "But here individuals are dealt with only in so far as they are the personifications of economic categories, embodiments of particular class-relations and class-interests" (1867, p. 7).

[16] "Truth of space" is a term used by the French philosopher Henri Lefebvre (1901-1991) in his seminal work *The Production of Space* (1974, p. 9). For Lefebvre, "… Knowledge of 'true' (i.e., mental) space" concerns "mathematicians and philosophers" pursuit for certainty, whereas "real space" is his term for "social space," which interests "geographers and planners," and others (Lefebvre, 1974, p. 94). The study of *truth* concerns theory and the study of *real* concerns the lived experience. Both signify notions of order. Lefebvre proposed the "knowledge of 'true'(mental) space" to criticize its opposite, "social space," or the 'real space' as envisioned, studied, and practised by scientific and political social structures. According to Lefebvre (1974, pp. 30-63), 'social space' embodied or intervened as 'architectural space,' becomes a product of economic and political forces rather than reflecting the needs and experiences of individuals. Architectural space concerns constructs or the "extreme formal abstraction of logico-mathematical space" of scientific space (Lefebvre, 1974, p. 15). True private mental space and social space have commonalities for Lefebvre (1974, p. 68) and concern a non-political, ordinary, in his words, "practico-sensory realm" of public spaces (Lefebvre, 1974, p. 15), potentially to reclaim authentic spatial experiences (Lefebvre, 1974, p. 372, 389).

Situations (1957), Debord defined the construction of situations as "the concrete construction of momentary ambiances of life and their transformation into a superior passional quality" (Debord, 1957, p. 44). Moreover, to highlight the level of intentionality required to conceive freedom in and as space, in "Internationale Situationniste" (Debord, 1958, N. 1), he defined the constructed situation as "a moment of life concretely and deliberately constructed by the collective organization of a unitary ambiance and a game of events." For Debord, everyday life becomes a site for constructing situations aimed at experiencing spatial and temporal freedom.

The Situationist International (SI) posits that the state fabricates false values by promoting images and ideas such as wealth. These constructs mask and enforce social class distinctions, territorial boundaries, and the perceived necessity for policing, control, and surveillance (Debord, 1967, trans. by Knabb, 2014, p. 11). It is important to note that these 'needs' are deliberate products of the capitalist state. As Debord articulates:

> The concentration of these media thus amounts to concentrating in the hands of the administrators of the existing system the means that enable them to carry on this particular form of administration. The social separation reflected in the spectacle is inseparable from the modern state - that product of the social division of labor that is both the chief instrument of class rule and the concentrated expression of all social divisions (Debord, 1967, trans. by Knabb, 2014, p. 8).

The SI held a strong belief in the significance of space to consciousness (Sadler, 1998, p. 164). In harmony with the z*eitgeist*, the post-war reconstruction of cities with ordered, functionalist, rationalist, essentially modernist spatial measures further stirred a desire for idea-diversions, primarily through anti-CIAM criticism in architecture and urban planning, and subsequently, a desire for image-diversions by political activists such as the SI. For the SI, the post-war reconstructed space was a capitalist space creating illusions of wealth or happiness to influence the psyche (Sadler, 1998). The SI used collage to distort and challenge the capitalist space that implied false ideas.

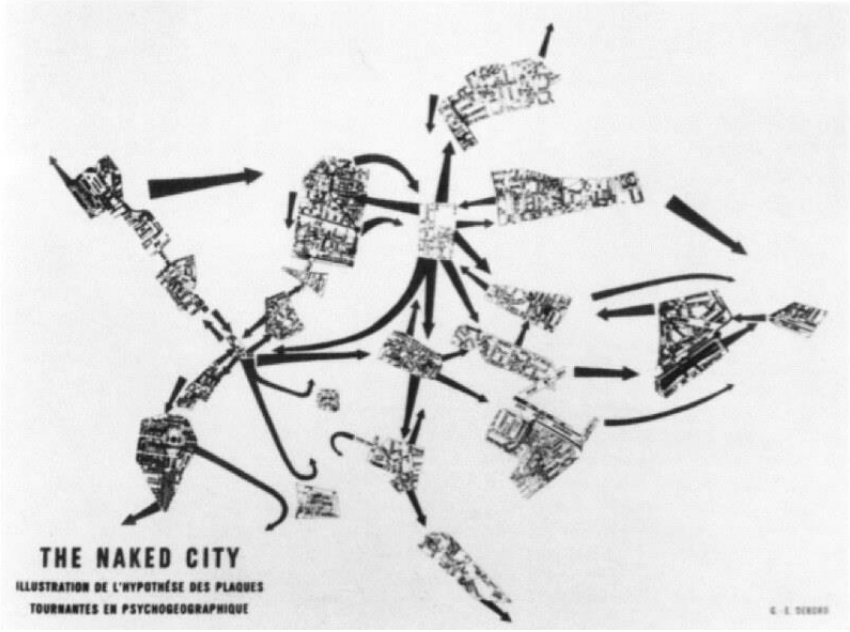

Figure 3.5 The Naked City (1957), by The Situationist International (Public Domain)

The Naked City is a psycho-geographical collage map of Paris by Guy Debord and a key piece in understanding the subversive interpretation of space by the Situationists International (SI). This reactionary view, accumulating other post-war avant-garde movements and ideas, challenges the status quo.[17] Leach (1997, p. 138) and McDonough (2002, p. xii) argue that the SI aimed to provoke critical engagement with space through intensified 'spatio-temporal' and bodily consciousness, going beyond the superficial spectacles of capitalist society. *The Naked City* collage (1957) is a prime example, disrupting familiar and conventional interpretations of Paris through intentional juxtapositions of arrows guided by wandering, superimposed over dissected urban fragments. This composition implies an alternative order or a critique of the power associated with conventional representations of order. The SI's psycho-geography map is a temporal, bodily-engaged, and experiential representation of space that intentionally resists ordinary spatial movement patterns. In doing so, it evokes alternative interpretations of what (capitalist) maps implicitly or explicitly convey, such as social class, neighborhood dynamics, land value, and desired social behaviours. The SI aimed to replace the authoritative capitalist structure and false

[17] For example, Leach writes (1997, p. 138), "Lefebvre developed, for example, the concept of the 'moment', a fleeting, intensely euphoric sensation which appeared as a point of rupture which revealed the totality of possibilities of daily existence. This was not dissimilar to the 'situation' in Situationist thought, although the Situationists criticized Lefebvre's 'moment' as being passive and temporal, in comparison with their active, spatio-temporal 'situation'".

consciousness with critical ideas infused with less certainty and authority and more humanity, intuition and imagination. [18]

The SI's conception of psychogeography aimed to distort the orders of capitalist urban settings and instead to intensify conscious moments within and between spectacles, 'ready-mades' including goods, urban spaces, streets, and their representation in maps. McDonough wrote that it was a reaction against the idea of being an "empty subject modelled by the influence of the surrounding" (McDonough, 2002, p. xii). The SI recuperated and modified the concept of the Surrealist *flâneurs*, which involved aimless strolling, into *dérive* or drift. Like the Dadaists, who subverted socio-aesthetic values, the SI recuperated *détournement*, diversions from the author or primary message in art literature, which in the Situationists' language means "diverting elements of affirmative bourgeois culture to revolutionary ends" (McDonough, 2002, p. xiii). *Dérive* and *détournement* is the process and product in *The Naked City* collage.[19]

Debord unfolds the agency of the image in the collage, *The Naked City*, as an essential perceptual matter at play within the capitalist civic realm of Paris (Debord, 1967, trans. by Knabb, 2014). He represented the two-way dynamics between images and spatial-temporal reactions by 'laying bare' the spontaneous connections between the map's 'body' (McDonough, 2002, p. 245) – neighbourhoods and their distances within the city, as known by ordinary Parisians. The fragments are from the known standard map, which acted as an intentional constraint and a connotation of what Paris is to other people. The result is a collage critical of implied ideas and intentions disguised behind the orders defined by the capitalist map space. In other words, the image fragments of *The Naked City*, which comes from a well-known map, the *Plan de Paris*, are tested as visual evidence of Paris. The collage projects a familiar unfamiliarity, a distorted but controlled representation of orders within the city different from its usual presentation and closer to its experience. An investigation into the SI's interpretations of space suggests that:

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[18] In McDonough's words, "There was, in fact, a curious strain of Situationist thought, little remarked today, that was precisely concerned with the destruction of the subject, with the vision of a new, malleable humanity" (McDonough, 2002, p. xii, xvi; also see Chtcheglove, 1953, p. 3, trans. by Knabb, 2006; Knabb, 1981, ed. 2008).

[19] The title is relevant to the psycho-geographic process. A detective movie of the 1950s called *Naked City* inspired the collage's name (McDonough, 2002, p. 245), suggesting visual clues in ordinary matter, especially when laid "bare," isolated or critically represented. McDonough cites Debord's "Introduction to a Critique of Urban Geography" of 1955, writing:

> The act of 'laying bare' the social body through the city's architectural symbols is implicit in the very structure of the map. Freed from the 'useful connections that ordinarily govern their conduct,' the users can experience 'the sudden change of atmosphere in a street, the sharp division of a city into one of distinct psychological climates; the path of least resistance—wholly unrelated to the unevenness of the terrain—to be followed by the casual stroller; the character, attractive or repellant, of certain places' (McDonough, 2002, p. 245).

1) what exists in a city influences conscious understandings of that city,

2) disrupting preconceived orders contributes to intuitive findings,

3) the findings are a circuit of familiar matters and ideas.

The commonality between these three ideas suggests that they are images that can become either a commodity to serve the media/state's agenda or reflect human thoughts about space and place. Spatial representations such as maps implicitly or explicitly convey these ideas. Urban maps are full of symbols and structures that connote hierarchies defined by the state, and the SI's mission was to subvert, *détournement*, this preconceived order through dérive or drift, and to represent spontaneity as conscious situations.

If the SI's collage acts as a primary space or medium to communicate in-situ intuitive-temporal ideas of freedom, as an idea or order perceived through *dérive*, can *The Naked City* be seen as a secondary spatial product, a different kind of order, a reductive interpretation conducive to the SI's psycho-geographical imagination? Can any intentional spatial juxtaposition evoke ideas of freedom? These questions are, in essence, the problem Debord had with Constant's conception of space — 'support' — manifested in the *New Babylon*, which caused them to part ways in 1960. Debord sought a social idea open to interpretation, while Constant pursued a 'new' spatial configuration and representation, albeit with design problems.

3.5.2 Collage and Utopic Orders (The New Babylon, The Superstudio, Archigram)

The New Babylon

The period following World War II, particularly between 1950 and 1980, was a time of profound change, witnessing the emergence of novel and surprising alternative life models. Utopian visionaries of this era were primarily concerned with the potential of innovative methods of doing, using imaginative collages and visual representations that could be likened to today's Midjourney AI renderings.

In the *New Babylon*, Constant's iteration of 'unitary urbanism', space is physically static, elevated by pilotis, a system of columns that lift the structure off the ground. Movements and work are automated and are not the citizens' concern; walls are transparent; there are no borders. Space, in the traditional sense of container, network, construct, and perception (Braun and Knitter, 2016), does not exist but is produced relentlessly through humans enjoying a life where there is no "difference between art and life, workers and artists, citizens and wanderers" (Chase, 2015, p. 4). Accordingly, *New Babylon*'s model of life

refused traditional spatial concepts such as “home” (Chase, 2015) or street/traffic (Sadler, 1998). Citizens are meant to roam freely like nomads, playing and creating ambiences, situations, or whatever spatial experiences lead them to do. Space can provoke them to rise above “Homo-Faber” and “Homo-Sapiens” (man [sic] as maker and man as thinker) and become “Homo-Ludens” or human-as-player. Constant adopted these ideas from Huizinga’s studies on the agency of play in human behaviour (Huizinga, 1938, ed. 1973, p. 32; Constant, 1971; Sadler, 1998, p. 107; McDonough, 2002, pp. 212-215, 237-238).

Constant’s objective for the *New Babylon* was to establish a space of freedom, where “automatic production” became an “infrastructure of the indeterminate future” and play became “an infrastructure for human relationships and not only an infrastructure of physical space” (Chase, 2015, p. 4, 8). Sadler notes that the collages representing the *New Babylon* were inspired by Peter and Alison Smithson’s *Cluster City* of 1953 (Sadler, 1998, p. 21), and visually feel like a more radical iteration of Aldo van Eyck’s structuralist orphanage/playground in Amsterdam (Sadler, 1998, p. 27). All three projects share connotations of a labyrinth.

Figure 3.6 Iterations of The New Babylon (Public Domain)

The feasibility of unifying or enacting intensive spatial ideas like freedom with play and creation, as envisioned in the *New Babylon*, was the subject of philosophical quarrels between the philosopher-filmmaker Debord and the artist-architect Constant (de Zegher and Wigley, 2002). For Debord, the intensity of spatial perceptions, like those felt in space and perceived as freedom, is a psychic quality. He believed freedom is primarily a socio-political idea that, when enacted, could serve as a foundation for other ideas. The contradiction enacted or animated would lead to other futures. Debord’s notion of *psychogeography,* a term he used to describe the effect of geographical location on the emotions and

behaviour of individuals, and *dérive,* a technique of passage through varied ambiences, was based on this understanding (de Zegher and Wigley, 2002, p. 50; McDonough, 2002, p. 357).[20]

In contrast, for Constant, freedom was not a socio-political idea but a personal mental concept that is possible to construct or represent. He believed that a spatially perceivable concept such as freedom or any other qualities or connotations that represent this freedom – such as "nomadism" (the idea of being free from the constraints of home), "play" (the freedom to experiment and create), "creativity" (the freedom to express oneself), and "ambiance" (the freedom to shape one's environment) — can be enacted in actual space. The space can act as "support" to "gradually" loosen or "evolve" people's dependence on the capitalist means and processes (Chase, 2015, p. 4). Debord played a central role in igniting Constant's imagination to create architectural spaces that could inform the psyche. Chase wrote:

> It has been noted ... that Debord ushered into Situationist International a view on architecture as a parallel for the construction of situations. This was recognized as an equivalence across the design process and Debord noted that 'the process of designing, the design itself, and the life that goes on inside must be the same thing' (Chase, 2015, p.2; also see Wigley, 1998, pp. 17-18).

This attitude resonated with the ex-CoBrA member Constant. Debord and Constant agreed on the mode of doing things, like the ideas of *dérive* and *détournement*, which emerged and developed in *The Naked City* of 1957. The result was an agreement on the potential of their utopic spatial concept called 'unitary urbanism.' However, their difference was whether an idea remains an idea when it materializes into a physical space, such as a labyrinth, as in *The New Babylon*. For Debord, unitary urbanism was an idea. It was a project for Constant.[21]

The SI and Constant have two starkly different but related criteria for measuring and interpreting unitary urbanism. Constant envisions his utopic project, the *New Babylon*, as an extendable unit or sector, a physical space that, to use Debord's words, allows 'the total occupation of social life' (Debord, 1967, trans. by Knabb, 2014, sec. 17). The SI or Debord interpret their utopic idea as psychic support, a mindset to

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[20] Debord thought that (constructed) space could facilitate the enactment of such ideas, resonating with the following by the Lettrist International (LI), which preceded the Situationist International (SI):

> The atmosphere of a few places gave us intimations of the future powers of an architecture that it would be necessary to create as the support and framework for less mediocre games. We could expect nothing of anything we had not altered ourselves (in McDonough, 2002, p. 357).

[21] This explanation is the thesis of the book *The Activist Drawing: Retracing Situationist Architecture from Constant's New Babylon to Beyond*, by Catherine de Zegher and Mark Wigley (2002).

enact conscious moments. Their contrasting interpretations resulted in Constant's resignation from the group in 1960 and his independent design endeavours on the *New Babylon* until 1974. Why did Debord interpret the *New Babylon* as propaganda? What does the 'New' represent?

False consciousness is a Marxist term and, in the context of the SI, refers to ideas premeditated by the controlling state and propagated and advertised by mass media in the years after WWII. False consciousness is a synthetically created *Zeitgeist* that can justify implied consciousness or ideas, also known as propaganda (Bauer and Nadler, 2021). This thinking might have influenced Debord's critique of Constant's *New Babylon*, a unitary urbanism structured around propagandistic notions, words and images connoting newness, creativity, and freedom (Sadler, 1998, p. 121). According to Debord, the *new representation* of 'freedom' is what media does; media can create false consciousness. The *New Babylon* was composed of collages and models – media, not to mention it connoted a (state-made) labyrinth. Debord suggested that *New Babylon* incorrectly correlated spatial newness with freedom while leaving the existing conditions behind. Sadler wrote:

> And over the next couple of years, Debord and his allies within the SI began to feel that unitary urbanism should never abandon the existing city in favour of virgin territory. They would not be exiled to a New Babylon in the way that the Jews had been exiled to the old Babylon. It increasingly seemed to them that their role in the making of unitary urbanism was as propagandists, not architects ... (Sadler, 1998, p. 121).

The 'New Babylon' might be the sarcastic name Debord gave to Constant's iterations of a utopic urban unit. In Constant's vision, the utopic urbanist unit should detach from the old constraints, which visually translated to the traditional districts transforming into extendable interconnected sectors elevated above street levels, providing citizens with space to be free and creative. [22]

The *New Babylon* project was first exhibited at the Stedelijk Museum in Amsterdam in May 1959; Constant initially called it an "ambience-city" and "labelled it 'pre-situationiste" (Wigley, 1998, p. 15), a space that comes before a situation. Within six months of its exhibition, the dispute between the SI and Constant on the agency or mission of *New Babylon* on future capitalist, authoritarian and consumerist behaviour

[22] On the same note Sadler states:

> Constant introduced the label 'New Babylon' to his works around 1958, drawing upon established comparisons of legendary old Babylon with the heady phenomenon of the modern city. The metaphor of Babylon brought the architectural and cultural neatly together. Architecturally, modern cities have revived the fascination with elevation, engineering, and spectacle that made old Babylon famous. Culturally, Babylon and the building of its tower have survived as a fable of common effort, giving way to fragmentation and finally to decadence. So, Babylon, once a parable of the godless modern city, was, on the contrary, revived by Constant as an exemplar for the modern city — technological, universal, and playful (Sadler, 1998, p. 122).

caused Constant's resignation from the group. According to Debord, *New Babylon* represented an unrealistic image of freedom. Chase wrote:

> The exhibition was approved by the Situationist International because the maquettes only stated the problems of unitary urbanism, and thus symbolized the necessity for more radical critiques of art to lead to action. But in witnessing the models in a gallery setting, they likely became de-familiarized, they looked strange and appeared too representative of abstract sculpture (Chase, 2015, p. 3).

Debord was interested in the agency of humans, as actors or activators of ideas, which frame space as a theatrical stage as seen during the Baroque period — "Thus, it was more important for Debord that a future city focuses on the actors and not the stage set" (Chase, 2015, p. 4). For Debord, the designed stage should "frame existing political behaviour." In contrast, for Constant, "architecture could provoke political action" and *The New Babylon* could enact this vision through "nomadism, play, ambience as well as adaptation and transience" (Chase, 2015, p. 4, 11). As a result, "The New Babylon did not persuade some Situationists for it relied on a kind of utopian escape," not to mention its columns created ways for "surveillance" and "control." The images produced and shared as creative products were limited and similar to those spread by capitalism. They implied false freedom (Chase, 2015, p. 4).

How did *The New Babylon* influence other avant-garde groups like the Superstudio or Archigram? The answer lies in understanding representations of order, including those that inspire or constrain freedom, as spatial and temporal interpretations shaped by the powerful forces of imagination and experience, language, technology, and cultural ideas.[23]

Freedom became a central social subject in the 1960s, evolving further through avant-garde movements Superstudio and Archigram that explored 'transience' and 'indeterminacy.' The influence of Henri Lefebvre's writings (1974, pp. 30-63) on philosophical space concerning "true (mental) space," and social space concerning real-world conceptions by geographers and planners is profound in these movements. Collage was a tool to synthesize and challenge culture, media, and preconceived spatial notions of order. Superstudio, for example, employed collage and photomontage to demonstrate how a neutral grid can facilitate new spatial relationships, while Archigram used spatial fragmentation to challenge, connect, or disconnect familiar concepts such as 'home' and 'permanency.' Their works demonstrate the contextual, temporal, and bodily tensions inherent in spatial interpretations and representations.

[23] These are, essentially, philosophical understandings of time, space, and memory, as studied in Chapter Two.

Superstudio and Archigram

The UK group Archigram celebrated automation or technology as a facilitating means to correlate freedom with the consumerist psyche (Shields, 2014). Using automation to discover a possible future, Archigram envisioned a fast deliverable spatial quality – their *Instant-City* project. Archigram aimed for spaces that could move, advancing people's precepts of future urban spaces. The Italian avant-garde group Superstudio offered a contrasting vision. Space is depicted as static and homogeneous in their collages, such as *SuperSurface* and *Continuous Monument*. Superstudio's work critiqued the consumerist psyche shaped by spatial orders, reflecting a critique of the contemporary society's uniformity and consumer-driven nature.

Superstudio and Archigram are avant-garde architectural groups of the late 1960s. Superstudio submitted its visions for future cities to the 'Tri-National Biennial of Graz' in 1969, dedicated to the theme of "Architecture and Freedom." Archigram submitted their vision to the 'Milan Triennale' on the theme "the Greater Number Problem" in 1968 (Lampariello, 2016, p. 1; Shields, 2014, p. 92, 105; Sadler, 2005, p. 196).[24] The themes of these events reflected the political climate of the 1960s – the decade of global strikes and public protests against capitalist, communist, imperialist and other ideas enforced by structures of power.

Students born after World War II carried out many of these protests in reaction to ideas that resulted in manipulated societies, wars, coups, and revolts elsewhere, like Vietnam and Korea, where ordinary people were exploited as foot soldiers to realize political agendas. It is also relevant to consider the role of media, especially television and public schools, in shaping shared experiences and collectively understood images and ideas of freedom and peace. This influence of the media, regardless of culture, implied the value of hope and resistance against evil. Whatever the origins of evil, mass media, which covered the news of strikes against power structures, provoked ideas about utopia – a vision for the future.[25] These events were the context for the utopian visions of Superstudio and Archigram.

Superstudio, a group of newly graduated architects from the University of Florence in the 1960s, suggested a dematerialization of space, taking out any structure that informed the foundation of architectural space. Instead, they proposed pure rationality of the grid to inform the voided space and a singular block, a

[24] Grande Numero or 'Greater Number' appear in other references. This theme aimed to address the challenges of rapid industrialization and growing population in the 1960s.

[25] One cannot ignore the parallels between the environmental, social, political dynamics, including climate change, post-Covid-19 (around 2022) and the historic events described.

continuous monument that crossed countries and continents, to shape the architecture. Shields offers three means to identify Superstudio's framework: seeing the "architecture of the monument" to bring "a cosmic order," and "architecture of the image" to evoke ideas, and "tecnomorphic architecture," which is "considered the rational assembly of tectonic components as a means of realizing the intended geomorphic order" (Shields, 2014, p. 106). A reinterpretation of these ideas suggests "the architecture of the monument" was the order-evoking agent or method, "the architecture of the image" was their ideation strategy, and "tecnomorphic architecture" was Superstudio's visual language to enact their utopic vision.

Superstudio used photomontage to articulate their imagination of utopia. According to Lampariello (2016) and concerning spatial communication, it became evident that:

> … photomontage became the preferred graphical tool for the construction of a 'discorso per immagini' for Superstudio, a narrative in which project descriptions and traditional forms of architectural representation are replaced by images representing enigmatic volumes, seemingly devoid of function and open to multiple interpretations (Lampariello, 2016, p. 106).

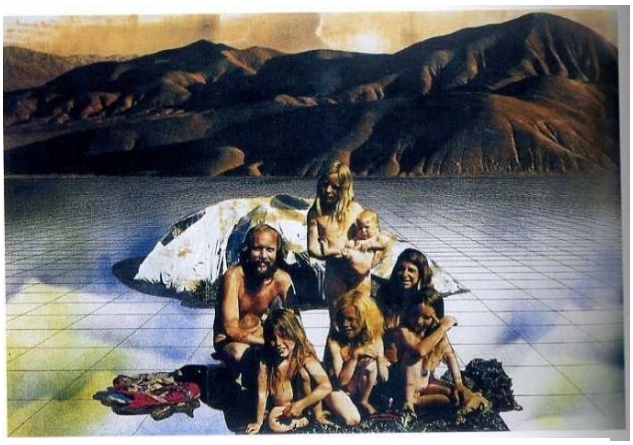

Figure 3.7 SuperSurface (1972). Taylor & Francis (CCC License ID: 1364241-1)

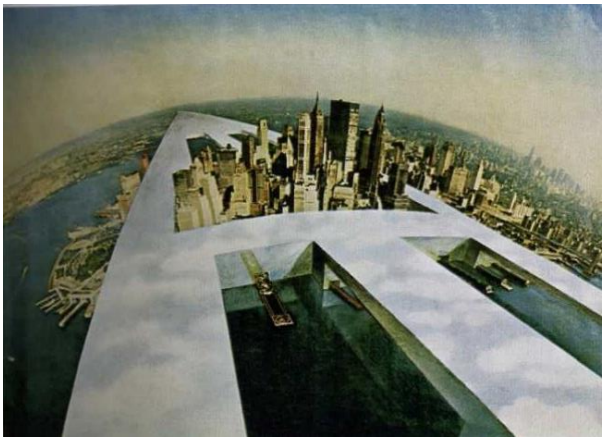

Figure 3.8 Continuous Monument (1969). Taylor & Francis (CCC License ID: 1364241-1)

Like the SI, Superstudio challenged capitalist preconceptions and consumerism perpetuated by the media. However, Superstudio diverged in their embrace of the potential of the new technological age. Their unique spatial concept, serving as a foundation for enacting freedom, was a neutral grid rooted in mathematical order and measure. This grid formed the basis for their utopian future cities, as seen in their iconic collages: the *SuperSurface* (1972) and the *Continuous Monument* (1969). In *SuperSurface*, the

universal grid creates a temporally undifferentiated spatial order, an equal division in all spatial measures where one can explore the *relationships* between ideas and matters, and in *Continuous Monument*:

> … the architecture occupies the void remaining after the incision of a fragment of a photograph. The architecture is then re-inscribed through line drawing, in a linear gridded structure that extends across the world. Superstudio saw the grid as a 'synthesizing and unifying element' (Shields, 2014, p. 108).

The grid is not entirely neutral, as it conveys geometry. However, the collages illustrate that while the grid in *SuperSurface* facilitates a temporally undifferentiated spatial order, the *Continuous Monument* is more explicit in its shape and lacks the temporal neutrality of the grid. Nevertheless, the visions in *SuperSurface* and *Continuous Monument* are essentially the same, emptying space of any architectural ideas and constructs, substituting what remains with "the most minimal and neutral space or backdrop for human activity" (Shields, 2014, p. 106), like a collage. Both examples "address the homogenization of space as a result of energy and information grids" (Shields, 2014, p. 107). Superstudio sought the grid in their collages as a neutral spatial context to become the infrastructure, the pretext for other spatial orders, ideas, and relationships. This pretext can be seen as reconsidered and challenged by Corner, not as a grid, but as the *medium* of collage.

Lamperiello (2016) calls Superstudio's attempt "the dissolution of conventional boundaries of architecture, to move towards its 'non-physical' re-foundation." In the article "Superstudio and the 'Refusal' to Work" (2016), the art historian Ross Elfine commented on their collage (Fig 3.7):

> Superstudio's choice to incorporate images of hippies into their photomontages of a proposed democratic network was anything but arbitrary and reveals a thorough understanding of the hippie's own conscious strategy of refusal. The autonomy that Superstudio envisions, then, is not a separation from society, but rather a strategy of clearing a necessary space for action free from capital structure.

Superstudio's intention in defining explicit spatial criteria applicable to space by correlating the grid with the counterculture of hippies is evident in its representation of freedom. The collages of the *Continuous Monument* were exhibited and published in various magazines until 1969, and then, the gridded structure was removed, shaping the project *SuperSurface*, created for the MoMa exhibition in 1971 (Shields, 2014, p. 106). A close comparison with Archigram, their contemporary, can better explain why this was an informed move toward their utopic spatial vision.

To encapsulate Superstudio's approach, they employed collage to convey various concepts and images of freedom. Their depiction of a gridded order, conceived as spatially and temporally neutral and stripped

of hierarchical structure or function in their collages, served to foreground anti-consumerist ideas. These ideas critiqued the prevailing consumer culture, suggesting that true freedom lies not in the accumulation of goods but in liberation from such materialistic constraints. The spatial relationships they depicted were often non-hierarchical, suggesting a more egalitarian and democratic society. Thus, their work evoked notions of freedom.

Archigram

The UK group Archigram (1961-1974) presented their utopic vision for the future, the *Instant City*, at the Milan Triennale on the theme "the greater number problem" in 1968 (Shields, 2014, p. 101). *Instant City* was a culmination of earlier works done by the group, such as the *Plug-in City* (1964), *Walking City* (1964), *City Interchange*, *Living City* (1963), and *Tuned City*, which in turn inspired other projects like the *Endless City* (1969). These works represent Archigram's embrace of "adopting indeterminacy as a design paradigm" to redefine architecture as a fundamentally 'conservative practice' (Sadler, 2005, p. 6). Archigram members were not "antiarchitecture" but critical of how "telecommunication" and other media were diminishing its impact on "social configurations" (Sadler, 2005, p. 6).

Archigram's embrace of indeterminacy in spatial design was a radical departure from traditional architectural order, leading to reactionary behaviours. Sadler contends that these were Archigram's pioneering, avant-garde interpretations of modernism. The members of Archigram believed that the mid-twentieth century's brutalist architecture, which sought "the essential, frozen, built image of the contemporary world," had stifled the spirit of modernism in their anti-CIAM visions and representations of architecture and city planning (Sadler, 2005, p. 16). Archigram aimed to reinvigorate the spirit of modernism, employing the creative potential of new technologies and weaving architecture into "the vicissitudes of everyday life" (Sadler, 2005, p. 6).

Members of this avant-garde group were fluent in hand-drawn representations that were critical and outreaching in their visions (Sadler, 2005, p. 141). Their publication of *Archigram* magazine, which included collages, strip-comic visuals, cartoonish imaginative projects, and high-detail technical drawings, reveals a reliance on the power of images over words. Sadler argues that it contributed to the sarcastic scolding readings of their work in the context of the 1960s protests against consumerism and control, resulting in its subsequent disbanding in 1974. Their drawings were designed for everyone, and the reactions were integral to their process.

Like Superstudio, Archigram utilized collage as a representational medium. An initial comparison of their collages suggests a similarity. However, the materiality of architecture and space is negated in the anti-consumerist visions of Superstudio, while it is emphasized and celebrated in Archigram members' writings (Shields, 2014, p. 108). This view is contested by Sadler, who disagrees with Shields. One could argue that Superstudio's minimalist collages represent their envisioned spatial concept, where the grid serves as a context or support to enact their utopian vision of freedom and democracy, a free and open network between images and ideas. For Superstudio, the grid could function as *a priori* space, a unifying element underlying ideas and a starting point for cosmic order (Shields, 2014, pp. 105-109).[26]

On the other hand, Sadler contends that Archigram sought to "dematerialize" or "uproot" the architectural constants of permanency, enclosure, and order — firmness, commodity, and delight — and proposed dematerialization, mobility, and adaptability (Sadler, 2005, p. 6, 107). This concept of 'dematerialization' was a key aspect of Archigram's architectural philosophy, resonating with the SI's "anti-form tendencies" (Forty, 2000, pp. 170-171). These echo Corner and Cureton's interpretations of Adrian Gueze/West 8's landscape projects, seeing them as "prepared grounds" and a site for "a variety of performances" (Corner, 2014, p. 126; Cureton, 2016, p. 107). Archigram emphasized the importance of mobility and adaptability over traditional notions of permanence and enclosure.

Archigram's early concepts not only celebrated existing buildings but also sought to "fine-tune" them with other "Popular Pak" (author's spelling — Shields, 2014, p. 101). This idea is particularly evident in an early project, *Living City* of 1963 (Shields, 2014, p. 101), which foregrounds behavioural reactions rather than spatial matters. Sadler, however, provides a historical context, reading Archigram's desire for indeterminacy as an opposing, critical reaction against the International Style, CIAM's charted view on modernist buildings, and British brutalism of the mid-20th century (Sadler, 2005). Archigram believed, these visions were weak iterations of post-war modernism (Sadler, 2005, p. 110, 114). Nonetheless, Archigram's collages as spatial concepts illustrate that they negated the fundamentals of conventional architectural structures and their representations, discrediting the conventional urban order, the grid, and the ordinary expectation of buildings, their permanency. In a technological context structured around industry and movement, "Archigram was unconvinced that a building's firmitas (solidity) was the

[26] A Superstudio member, Toraldo di Francia, celebrates their spatial vision as emancipation, "from the opposition nature-architecture, city-country, from the objectional aspect of architecture as a final monument of totalizing utopias, and of great stories, that in the name of rational order, had organized a pure synthetic view of reality measured by perspective" (note 65, in Shields, 2014, p. 107).

necessary precondition of its utilitas and venustas (utility and beauty), as Vitruvius's foundational equation of the Western architectural tradition had ordained" (Sadler, 2005, p. 6).

In their collages, an emphasis on synthetic imposed orders can be generated between familiar and unfamiliar fragments and their relationships. Archigram's collages aimed to communicate controlled measures and iterations of indeterminacy, built on several spatial and temporal criteria with one criterion or idea suggested as the intended message. In the project *Living City*, the focus was on reactions suggesting "that cities, being more than mere functional organization of space, are the life-support machinery of a culture in perpetual change" (Sadler, 2005, p. 8).

Archigram (1961-1974) published several visionary projects offering other measures communicating indeterminacy, including the *Plug-in City* (1964), where living units could become easily changeable consumer objects or products. One can plug into a system of infrastructure anywhere. The concept of home, a familiar space, is turned into capsules (Sadler, 2005, p. 145) and can plug into an installable, expandable, non-grid infrastructure. Unlike Le Corbusier's conception of the home as the machine of life, which uses technology as an "aesthetic expression" and as a means to represent and justify "functionalism" (Shrijver, 2009), or his extendable Radiant City, Archigram's vision rendered the invisible extensions of technology, which are the unseen but influential aspects of technology, showing how technology could influence life on a subliminal level as means, method, and language of doing/designing (Sadler, 2005, p. 83, 98). *Plug-in City* and another Archigram project, *City Interchange*, rely on the affordances of technology as a source of order rather than as a means or asset to design.[27] Figures 3.9 to 3.11 illustrate how Archigram celebrated technology, dynamism, and transformability in space, challenging determinacy as the conventional notion of spatial and temporal order.

Indeterminacy is a bodily understood emotional reaction crucial to Husserl's phenomenological reduction. It leads to eidetic intuitions essential for perception and plays a key role in Bergson's conception of duration. When indeterminacy manifests in space as extensity, such as in Archigram's collages delineating potential relationships between technology and space, it provokes mental suspension, intuitive feelings of intensity, and interpretive reactions.

Shields' and Sadler's investigations into Archigram's conception of space, time, and context suggest that the group was avant-garde because they thought of the future as indeterminate possibilities that depend on how one utilizes the present condition to reach imaginable ends. The focus here should remain on

[27] This point was noted by a member of Archigram, Warren Chalk, in 1998 and mentioned in Sadler (Sadler, 2005, pp. 82-83).

their imagination and how they represented it. Archigram's legacy was "'indeterminism' as precisely the feature that made it momentous to the history of the avant-garde," however, some thought Archigram's works were "irritatingly remote from pressing social issues" (Sadler, 2005, p. 195). Archigram celebrated consumerism as "evidence of progress" (Shields, 2014, p. 106; Sadler, 2005). This aspect of their work was problematic in the context of 1960s political unrest and activism against governments, structures, consumerist agenda of media, and environmental concerns. Archigram also received criticism for their ultra-modernist agenda, neglecting history and context, "the belief that architecture can or should change the world through ruthless modernization," enforcing mega-structures, enacting "perpetual change of super-technological consumerism" (Sadler, 2005, p. 45) from Denise Scott Brown and Robert Venturi (Sadler, 2005, p. 191). Archigram was perceived as a pro-consumerist and technocrat group in the 1970s, possibly contributing to its disbanding in 1974 (Sadler, 2005, pp. 193-196).

Forty (2000, pp. 170-171) saw Archigram's interpretation of architectural indeterminacy as exemplifying the Situationists' avant-garde "anti-form tendencies" in the 1960s and 1970s. This connection to the Situationists provides a critical historical context for understanding Archigram's work. In landscape architecture, some literature views this formlessness in Archigram's works as an inspiration and opportunity for enabling site performance, providing a basis for conceiving public activities within landscape architectural projects. In "The Emergence of Landscape Urbanism", David Grahame Shane notes how Corner traces "this performative approach back to the work of Rem Koolhaas and Bernard Tschumi, who in turn drew on the time-centered work of Cedric Price and Archigram" (Waldheim, 2006, p. 60, 57-65). According to Shane (in Waldheim, 2006, p. 60), Corner views Parc de la Villette (1982) in Paris by Tschumi and West Market Square in Binnerotte, Rotterdam (1994-1995) by Adrian Geuze/ West 8 as examples of such "prepared grounds" or design proposals enabling active participation. On a similar note, Cureton mentions Schouwburgplein (Theatre Square) in Rotterdam (1990-1993), also by Geuze, as a project envisioning "a variety of performances, with crane lights operated by the public, the design reflects Rotterdam's port" (Cureton, 2016, p. 107). This strategy of recovering and engaging the public's memory of place suggests indeterminate yet defined spaces that facilitate activities and enable context-specific interpretive measures (Corner, 2014, p. 126).

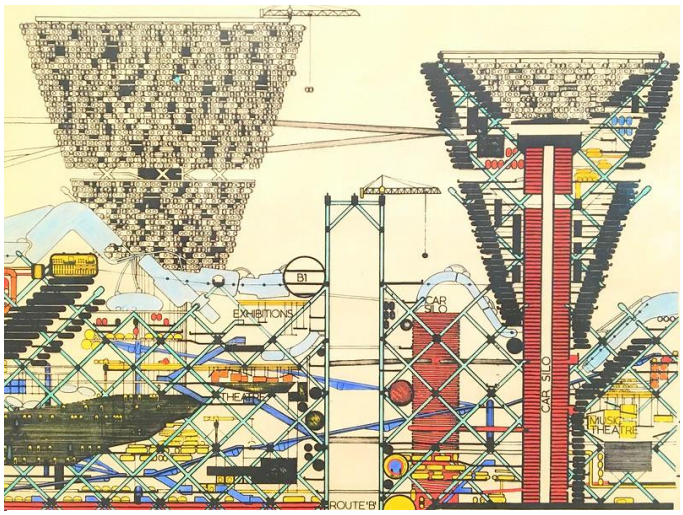

Figure 3.9 Plug-in City (1964). (Public Domain)

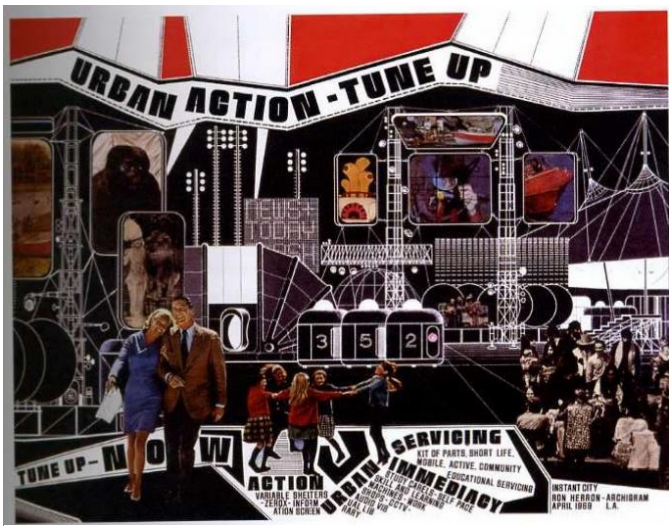

Figure 3.10 Tuned City (1964). Taylor & Francis (CCC License ID: 1364241-1)

Figure 3.11 Instant City (1969). Taylor & Francis (CCC License ID: 1364241-1)

Archigram's interpretation of 'indeterminacy' was a futuristic claim concerning spatial ideas and modes of being, but their lack of concern about social issues and responsibility was problematic. Their work was significant because they sought to give agency to people in an era of socialism and individualism in the 1950s and 1960s. One evident issue was assuming people were merely consumers, "Archigram's world was a stage behind and a stage beyond that of the Situationists" (Sadler, 2005, p. 196). To Archigram, consumerism was a sign of having "choice," a signal to "freedom" (Shields, 2014, p. 100). Therefore, they claimed, "It is now reasonable to treat buildings as consumer products, and the real justification of consumer products is that they are the direct expression of a freedom to choose." (Cook, 1972, p. 78; endnote 49 in Shields, 2014, p. 100). Their position raises unresolved questions, such as the relation between an individual's freedom and consumerism, which continue to be debated.

The freedom-by-consumerism implied a vision for architecture that was deeply human-centric. From 1961 to 1974, Archigram worked through a series of collages and drawings, essentially visions of indeterminacy and movement, and suggested further clues to interpreting them through writings and exhibitions. These series include *Living City*, which focuses on human reactions; *Walking City*, which focuses on movement; *City Interchange*, which focuses on traffic and technological order; and *Instant City*, which focuses on space as a consumer construct. These examples elucidate their support for industrially made, mass-produced goods and the ideas that could follow, an *indeterminate context* for "potential events" (Sadler, 2005, p. 194). The happening or events, "the ephemeral nature of human activity," was, to Archigram, more critical than the architecture that framed it (Shields, 2014, p. 100). In their collage for *Living City*, where human figures are the foreground and existing architecture acts as a background, the "appropriation of existing architecture suggests spatial and aesthetic qualities imposing an architectural prescription" (Shields, 2014, p. 101). In the *Living City*, the space does not need to be replaced; it can be "fine-tuned" through "popular pak(s)" (Shields's spelling, 2014, p. 101). For Archigram, how people react to things is more important than the things themselves. This aspect is also evident in their collage for *Instant City*, where they envisioned and visualized delivering "metropolitan quality" or space to an intended destination to provoke psychological change. Archigram believed that "social configurations" can change through proper spatial stimuli (Sadler, 2005, p. 6).[28] This thinking may also have influenced Superstudio.

[28] Archigram's ideas of indeterminacy through staging spatial concepts made by automation and consumer media resulted in paradoxical images and ideas that are still relevant in today's context that: a) technology can create space or capsules (online meeting platforms), b) consumerism can control the psyche in virtual spaces (Instagram), c) virtual spaces inform behaviour indicative of the future and d) new conceptions of space remain confined within constants or constructs, like the grid in

Sadler concluded that Archigram's collages and drawings challenged traditional notions of space and place, evoking visual means to a utopic future. In the 1960s, the question of who produced space and place was significant (Elfine, 2016). In Archigram's *Plug-in City*, one is free to choose what to make of space, although, to use Shields' words (2014, p. 103, 105), the "vocabulary of form" or place is narrowed to "existing sources" and technological means. *Instant City* exposes one to a familiar context and unfamiliar packs of popular consumerist space and products.

Superstudio's *SuperSurface* and *Continuous Monument,* in contrast, were not just about breaking the cycle of predefined space and place. They were also about challenging the societal norms that shaped these spaces. They sought to diffuse and negate the materialistic spatial pillars that shaped places or concepts conducive to such consumerist psychic reactions. This perspective can explain the drastic change, removing the mega-structure *in Continuous Monument* (1969-70) and creating a 'pure' grid on the ground, the *SuperSurface* collage in 1971. Superstudio negated the fundamentals of space, including objects and relationships, and in doing so, offered a powerful societal critique. At the same time, Archigram challenged the permanence of architecture to celebrate indeterminacy as a relevant technologically-driven spatial measure for the future. Corner employs collage to reveal how these interactions can be understood through eidetic and memory-informed measures.

From these precedents, a deduction is that the representations by Constant, Archigram, and Superstudio aimed to express and evoke desirable temporal reactions in their audience by spatializing ideas such as future, freedom, and equal rights. These movements sought to elevate the existing social order by adding utopic images to the cultural psyche that react to familiar stimuli and aesthetic judgments in real, believable space and time. Archigram was different in how they addressed the future, using familiar images from the past in new orders, alien, unexpected juxtapositions and hierarchies. In contrast, the *New Babylon* and *SuperSurface*/*Continuous Monument* negate the familiar. The *New Babylon* relies on elevated, interconnected spaces on pillars with translucent walls to act as a framework or support for other relationships. Superstudio negated such constructs completely (Lampariello, 2016).

A final comparison between the SI, Constant, Superstudio, and Archigram underscores the dual function of spatial representation in *grounding* and *shaping* new subject matters and alternative interpretation methods. These movements used collage as a powerful tool and space to illustrate how emotionally charged spatial interpretations and representations influence each other, shaping potentially profound

software/maps or the network in the internet. These emphasize the critical relationships between space and collective behavioural reactions influencing lived experiences through bodily emotions and spatial durations.

and new spatial orders and social dynamics. For Superstudio, the grid, often associated with a deterministic view of space, evolved into an indeterminate context that fosters new social relationships. In Archigram, technology evokes the indeterminate context, and technological means and methods shape spatial and temporal configurations of urban life. These examples reveal the role of intuitive and eidetic interpretations of space and context, which these movements expressed through intentional juxtapositions of *familiar* fragments and ideas to stimulate the imagination, new interpretations of spatial order and novel ways of dwelling in space and time. With its unique ability to provoke and challenge the flow of spatial and temporal ideas and interpretations, the medium of collage played a significant role in shaping and grounding how emotionally charged representations of space and time can inform, lead, or obscure contextual social ideas.[29]

3.6 Significance and Applications

Understanding and articulating spatial and temporal interpretations in collage is significant because this spatial-temporal flow underpins the *ongoing dialogue* between the creator and viewer, the domain that the collage addresses, and the field of knowledge it engages. As outlined in Chapter Two on philosophical grounding, the eight criteria — interpretations of space, emotions, references of essential information, contextual ideas, methods of delivering, aspirations, the audience, and the paradoxical feelings of neutrality and moments of mental clarity — can empower designers in interpreting and articulating highly context- and subject-specific ideas conveyed through the abstract medium of collage. These criteria support readers in initiating a *dialogue* between the familiar and unfamiliar within collage representations. These interconnected criteria were instrumental in further refining interpretations of *spatial order* pursued in this chapter.

Investigating the collage examples in this chapter, from Cubism to utopian avant-garde movements, reveals the primary influence of the first two criteria in stimulating eidetic intuitions and durational qualities in perception. These primary criteria evoke interpretations of space, time, and bodily and emotionally interconnected memories of subjects and contexts, influencing our imagination,

[29] Would these relationships between ideas and images, social orders and geometric orders/grids, top-down and ground-up utopic planning, complexity, contradiction and abstraction in signs and symbols, and their greater significance in human life have contributed to a post-modern trend? Jencks (1977), Sadler (2005), Rowe (1972), Rowe and Koetter (1978), Venturi (2002), and Alexander (2002) believe they did. They cite the evidence as being after the Pruit-Igoe explosions. The Pruitt-Igoe explosions in the 1970s marked the demolition of a failed public housing project in St. Louis, Missouri. This event symbolized the perceived failure of modernist urban planning and architecture. It was a clear example of the social and economic issues inherent in large-scale, impersonal housing developments.

interpretation, and representations of subsequent spatial and temporal stimuli. They can delineate the scope and approach of other interpretational criteria within different collages, including those that address landscape sites and ideas.

For example, Corner's *eidetic measures* for interpreting the American landscape through measures of land, control, rule, fit, and faith capture the primary criteria in explicit synoptic words, conveying the *evolving* yet *site-specific* notions of spatial order. His writings and collages (1996, 2014) explore the potential relationships between hermeneutical interpretations of space and phenomenological emotions tied to place and lived experiences. By integrating contextual perceptions and preconceptions of the subject (spatial measures and metrics in landscapes) with ideas and images of lived experiences (place), Corner's work stimulates pluralistic reflections about space, landscape as a medium, and their accumulative influence on the lived experience within sites. His work is a thought-provoking exploration for those interested in the built environment, as it underscores the social, political, and environmental issues that are intricately woven into spatial contexts. Corner's collages express ideas of land and measure making explicit references to both subject and context. By juxtaposing familiar fragments as eidetic measures of the American landscape, Corner initiates a dialogue that raises a compelling question: *what constitutes a measure for interpreting a context-specific landscape?* His collages hint at Cartesian spatial measures of the Jeffersonian grid in collision with non-Cartesian, site-specific and memory-engaged spatial experiences. This purposeful juxtaposition implies a search for alternative eidetic discovery measures, offering a method to capture, fuse, and convey pluralistic relationships between ideas of space and emotions of place in the context of time and technology.

Similarly, the avant-garde movements studied in this chapter profoundly impacted the understanding of space and its role in shaping future social dynamics. Their work, which captures space as an indeterminate medium, inspires those interested in the arts, social science, and spatial politics. These ideas are exemplified in the writings of Henri Lefebvre (1974) and others.[30] Their framework primarily concerns how space, including its interpretations and representations, can operate as conceptual constructs with agency, imbued with notions of social, political, and environmental orders.

Artists, architects, designers, theorists, and filmmakers utilized collage to prioritize and communicate challenging social and political agendas that were often disguised or difficult to communicate in conventional media. Their works evoke contextual ideas of space and emotions tied to specific subjects

[30] Such as David Harvey, Gilles Deleuze, Félix Guattari, Edward Soja, Brian Massumi, and others (See Leach, 1997).

and contexts. The role of Cubism in distorting deterministic spatial representation to prioritize and emphasize temporal intentions is evident here. Like Corner's eidetic measures, the studied examples show an intentionality behind space-to-emotion relationships informing subsequent interpretations. The medium of collage in all these examples (Table 3.1) served as a deliberate and accessible tool to stimulate pluralistic yet context-specific spatial and temporal interpretation measures, thereby inviting and valuing the interpretation of ordinary viewers. This inclusion broadens the scope of these works and highlights the role of imagination.

	Collage synthesis of Space and Emotion	**Situated interpretation trajectory**
Picasso	Cubist space	accuracy of temporal communication of objects and room
the SI	psychogeography	spontaneous spatial order: one does not need to follow capitalist worldviews and their spatial orders; anti-consumerism
Constant	play	the society of homo-ludens (players of life and makers of space)
Superstudio	neutral grid	homogeneous spaces like the Cartesian grid can act as a space to synthesize relationships
Archigram	indeterminacy	celebrating automation, freedom to afford, consumerism is good, playful, transformable space
Corner	eidetic measure	the feeling of grounded-ness, measure, and familiarity

Table 3.1 Collage, spatial ideas, and spatial interpretations

Corner (1996; 2014) and others including Treib (1995), Olin (1988), Spirn (1988; 2006), Howett (1987), and Wilk (2021) interpret the landscape as a medium that synthesizes and communicates people's understanding of space and time and appreciation of nature rooted in culture and history. Landscape sites are living entities influenced by numerous social, political, and environmental factors and complexities, including climate change. These complex interactions between humans and nature evolve over time and shape how landscapes are perceived.

Landscape architectural projects change places. Designers communicate these dynamics, which differ from architectural representations, as they convey the *evolving* nature of relationships between spatial measures and site conditions. These relationships include temporally intensive spatial characteristics and the quality of thoughts exchanged between people and spaces (Cureton, 2016). Consequently, landscape representations can be seen as an intentional endeavour to capture spatially and temporally rich ideas and dynamics grounded in the specificity of sites.

While the eight interconnected, *open-ended* and *subjective* interpretation criteria discussed in this chapter — interpretations of space, emotions, references of essential information, contextual ideas, methods of delivering, aspirations, the audience, and the paradoxical feelings of neutrality and moments of mental clarity — can serve as critical entry points for interpreting collages, they can also complicate the communication of site conditions. What constitutes a site-specific spatial measure in landscape architecture?

Explored in Chapter One, Corner's approach to landscape imagination and representation, viewed as the agency of space and the role of landscape architecture in shaping the lived experience, offers a valuable framework for analyzing landscape collages. His emphasis on the relationships between spatial-temporal fragments as connotations of subject and context, which are conveyable through collages, and eidetic discovery measures, which enable their interpretations, is significant. He suggests that investigating their synthesis can help designers unfold ideas of order. This approach provides a structured lens to analyze subjective interpretation methods in the context of landscape imagination and representation.

Corner's tripartite structure — collage fragments, eidetic interpretation measures, and ideas of order — with its emphasis on the role of eidetic intuition in spatial imagination and representation, suggests how conceiving space in the analysis stage can intensify and enhance the design stage. He argues that this eidetic perception and conception process could lead landscape designers to contextualize more deeply adaptive and relevant landscape ideation measures that implicitly or explicitly imply spatial orders. This not only enhances the theoretical understanding of spatial design but also has practical implications for the field. Eidetic collages in his work evoke questions about space but also reveal possible relationships between what is qualitatively or quantitatively deemed a spatial measure for landscape interpretations (Corner and MacLean, 1996). This strategy inspires eidetic methods for designers to understand how spatial imagination can influence lived experiences, enabling them to visualize, articulate, and expand site-specific interpretation measures and relationships.

3.7 Conclusion

Landscape interpretations and representations are crucial in shaping the function and enhancing the utility and beauty of spaces and places, reflecting a myriad of social, historical, political, vernacular, and natural conceptions of order. In this context, eidetic collages offer a generative approach to landscape representation. They have the ability to evoke multiple emotions tied to space, time, and memories

associated with place. Eidetic landscape collages stimulate the imagination by reflecting the lived experiences of sites. They demonstrate that multi-sensory spatial interpretations can alter our perceptions. The process of creating and interpreting collages activates an intuitive understanding of how spaces can trigger emotional responses, or how bodily reactions and emotionally charged perceptions can shape our understanding of physical and mental order. Landscape collages can uniquely capture how each interaction with landscape sites and ideas evokes fresh ways of interpreting and representing space, guiding the conceptualization of landscape designs that eventually occupy space and become part of the lived experience.

As seen through this brief history, from Cubism to post-war practitioners and, more recently, Corner's eidetic representations of landscape measures, collage has been a powerful tool to communicate complex ideas about society and the physical environment. His collages reveal the benefits of synthesizing site-specific Cartesian and non-Cartesian spatial understandings. Collages provide creative avenues to articulate how any spatial intervention, including those depicted as design proposals through maps and renderings, implies notions of order and influences the lived experience within landscape sites. Exploring how spatial logistics in project briefs and design decisions impact a site and its context is crucial to landscape architecture. By facilitating a verbal and visual dialogue that unveils the ongoing *iterative* processes behind conceptions of order, landscape collages underscore the agency of space itself and significantly contributes to designers' understandings of how people perceive landscape architecture and its potential to transform lived experiences *within* and *beyond* the design site.

Studying collage examples from avant-garde movements examined in this chapter has revealed how representations can challenge or justify interpretations. Insights drawn from Corner's writings on *speculative* landscape representational methods, a quest to *discover the relationships* between visual connotations, eidetic measures, and notions of order have highlighted the critical and complex interplay between emotions and conceptions of space. Eidetic spatial measures can enable designers to interpret spatial and temporal stimuli within site/collage, underpinning notions of order that inherently exist and continuously evolve through social, political, and technological measures. Memory-informed space-to-emotion relationships are interconnected and serve as a priori conditions to interpret any other speculative criteria, as studied in this chapter.

To initiate an ongoing dialogue with landscape collages and other representational methods, such as Midjourney renderings of landscape sites and subjects, one can ask the following questions:

1. **What does order mean socially, historically, naturally, culturally, and formally in the context of the site in question?** What spatial orders are suggested? Are spatial orders connected or disconnected from the site context? Why? Are there priorities in communicating spatial orders? For example, can a vernacular order or idea imply or overrule a political agenda?
2. **What emotions are communicated, and how are they relevant to understanding and designing the site in question?** Can emotions be suggested or implied? Is there a priority in communicating an emotional factor? For example, can an emotionally charged factor, such as a social-political idea, change the spatial interpretation during design and the spatial order envisioned for the design?

The questions imply an inclination toward creating interpretations based on already-expected answers and preconceived spatial measures of function and beauty. Through targeted questions, designers can use landscape collages to investigate spatial emotions, such as ideas of pleasure, and to highlight significant elements such as an audience, event, location, practice, or style, all of which are influential factors in spatial interpretations. Furthermore, designers can employ collage to challenge the desire for certainty or even ambiguity in maps and plans. These questions can bring crucial aspects of sites and their contexts into focus, ensuring they are neither downplayed nor overlooked in spatial negotiations.

These ideas summarize Corner's collage method, which intentionally synthesizes site-specific spatial and temporal connotations, eidetic discovery measures, and notions of order that influence lived experiences within specific sites. His method can structure open-ended and eidetic interpretations of landscapes and their representations, targeting how ideas of order imply or evoke emotions or how the evoked emotions imply a spatial order. It can help the designer articulate and expand subjective and context-specific interpretation dynamics. These dynamics can inform the creation of Midjourney prompts and images.

From these targeted questions, and the interpretation trajectories they evoke, it becomes evident how landscape collages can be highly instrumental in capturing what landscape ideas, measures, concepts, and representations prioritize and communicate. Landscape collages can offer a unique bodily- and memory-informed perspective and enrich the conventional design process, which entails survey, analysis, and design.

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Figure 3.6: André, (2019). *Iteration of the New Babylon* (1970-71) by *Constant* [Online]. 2005 Gemeentemuseum Den Haag En.W. Available at: <https://www.flickr.com/photos/andrevanbortel/46634183325/in/photostream/ > (accessed: 20 November 2023). [open source]

Figure 3.7: *The Continuous Monument* (1969), in *Collage and Architecture* (2014, p. 107), published with permission from Taylor & Francis, order date (11-Jun-2023), CCC Order License ID 1364241-1.

Figure 3.8: *SuperSurface* (1972), in *Collage and Architecture* (2014, p. 108), published with permission from Taylor & Francis, order date (11-Jun-2023), CCC Order License ID 1364241-1.

Figure 3.9: *Plug-in City* (1964), by Wyliepoon (2019). *Museum of Modern Art (MoMA)* [Online]. Flickr. Available at: <https://www.flickr.com/photos/wyliepoon/49224543288/in/photostream/> (accessed: 20 November 2023). [open source]

Figure 3.10: *Tuned City* (undated), in *Collage and Architecture* (2014, p. 99), published with permission from Taylor & Francis, order date (11-Jun-2023), CCC Order License ID 1364241-1.

Figure 3.11: *Instant City* (1969), in *Collage and Architecture* (2014, p. 102), published with permission from Taylor & Francis, order date (11-Jun-2023), CCC Order License ID 1364241-1.

CHAPTER FOUR: MIDJOURNEY AI

4.1 Introduction

This chapter examines how landscape designers can use eidetic collages to assess Midjourney's ability to generate renderings that resonate with the lived experience of a specific site or place. *Eidetic* collages are site-specific, memory-engaged, image juxtapositions that address multi-sensory ideas related to sites, *prolonging* designer's experiences with the design context. In 2023–2024, AI tools sparked concerns about their impact on landscape architecture, particularly in reshaping the role of human designers in creating richly imagined lived experiences. Midjourney is an AI-enhanced representational tool that processes textual and visual input and can generate compelling landscape architectural visual representations. Its ability to invoke spatial and temporal dialogue tied to a specific site and to stimulate feelings of the *familiar* for both creator and viewer echoes the function of eidetic collages. However, the speed and automation of AI image production may influence human imagination, raising questions about how to preserve human-centred, memory-engaged design practices within an increasingly AI-integrated workflow.

These concerns revolve around how to balance AI integration with human-centred approaches to design. For example, the application of AI in landscape architecture is seen as a "scientific and technological support" to "solving" different problems, including "urbanization, environmental degradation and ecological decline, irrational planning" and accelerating various aspects of the workflow, including "the design process, optimizing management and maintenance, enhancing ecological sustainability, and improving visitor experience" in landscape architectural design (Xing et al., 2025, p. 1, 22). Hassan (2024, p. 314) states that AI's "prowess for conducting efficient data analyses" enables an "analytical focus towards sustainability and the ramifications of climate shifts." This potential establishes AI as a "guiding force for designers in striking an optimal balance between visual appeal and ecological conscientiousness". Additionally, AI enhances the "tailoring of landscape designs based on user preferences" and "providing virtual and interactive design interfaces", contributing to informed "decision-making processes" (Hassan, 2024, p. 314). As Fernberg and Chamberlain state (2023, p. 29, 13-35), potentials such as these underscore the need for a unified framework to "formalize, compile, and contribute" AI knowledge in landscape architecture to support future research and practice.

There are emerging studies on how different AI model structures, such as open-source engines like Stable Diffusion and closed-system platforms like Midjourney, shape future image generations (Dondero, 2025, pp. 111-146). These engines use deep learning algorithms to 'extract features' from large image datasets.

This process relies on 'embeddings,' which are 'vectorized,' data-driven representations that 'encode' mathematical relationships between words and images in a 'latent space' (see Dondero, 2025, p. 114, 133). AI text-to-image generation tools also play a role in pedagogy and the 'creative design process' in disciplines such as architecture that are heavily reliant on images and media (Paananen et al., 2023, pp. 458-474), and which may subsequently influence imagination and representation in landscape architecture. Since the text-to-image transformation process is highly dependent on both the database and the AI model, it can confine image descriptions and production, potentially influencing what becomes part of cultural memory.

Eidetic collages, as intentional juxtapositions of emotionally charged image fragments keyed to specific sites and subjects, play a key role in encouraging human-centred, nonlinear design interpretations. Designers can use collage to uncover and explore the lived experiences within a context by conjuring various site reactions and grounding them in previous knowledge and experiences. Importantly, these collage fragments and juxtapositions stimulate hermeneutical reflections by summoning ideas from the past, present, and future to the forefront of spatial thinking. This memory-engaged, intimate, and multifaceted visualization process enables designers to openly explore and interpret the project brief and analyze how analytic survey findings evoke spatial reactions and responses within a site. Eidetic collages can be seen as instrumental to the design process in landscape architecture because they encourage bodily-engaged interpretations of spaces, places, and project briefs, including their potentials and limitations in design thinking. The ongoing process of shaping and defining possible relationships between spatial descriptions and mental images is essential in collage-making and reading. It encourages nonlinear iterations in the design process, enabling designers to constantly reimagine the context through multiple scenarios in different spatial and temporal settings and conditions.

Midjourney's text-to-image generation capabilities enable designers to engage with heterogeneous ideas and fragments echoing a site's lived experiences. However, Midjourney shifts this nonlinear ideational dynamic into a 'strictly linear' method, requiring 'momentary finalized' ideational factors as descriptive prompts to generate images (see Section 4.4). The automated process also produces 'unexpected spaces', which are areas or aspects of the design that are generated without specific input or direction. The construction of these seemingly arbitrary text-to-image relationships significantly influences traditional landscape architecture representational methods informed by survey, analysis, and design processes.

Collage-making is a powerful tool that enables designers to explore, reimagine, reinterpret, skip, emphasize, or exaggerate various spatial and temporal relationships and factors shaping the unique attributes of a landscape site. This technique, which mirrors the survey stage, allows designers to investigate context-specific characteristics and spatial orders experienced within the site. Its potential to foster moments of mental suspension and uncertainty about a site's multifaceted conditions is central to creative ideation, interpretation, and representation in landscape architecture. Corner's writings (1996; 2014) exemplify the potential of collage for landscape design surveys, emphasizing its emancipatory quality to reveal the "previously unforeseen relationships" within sites (Corner, 2014, p. 16, 44). He argued that exploring these eidetic relationships, where one spatial measure can imply multiple ideas, can contribute to contextually nuanced imaginings and representations of landscapes (Corner and MacLean, 1996).

Midjourney structures these open-ended ideation dynamics in eidetic collages, reducing human imagination of space into a constructed, sequentially staged, and qualitatively defined process. This transformation, while seemingly restrictive, also evokes a sense of wonder about the visualization process itself, how a word description transforms into multi-sensory, memory-engaged, and tangible spatial qualities as renderings. It is unclear to what extent Midjourney renderings echo the operator's imaginative and idiosyncratic intentions. However, it produces images and evokes ideas about the context that can contribute to the design process.

Eidetic collages intensify spatial imagination and representation dynamics. They enable speculative thinking by engaging the designer's memories of the past with their present experiences, allowing them to reflect openly on all stages of the design process, including multiple encounters with a site or interpretations of a project brief. In contrast, Midjourney uniquely *suggests* a prompt-to-image process, where the engine uses its dataset to generate images of a site. This process involves an enigmatic text-to-image transformation based on an inaccessible dataset. Its renderings can be viewed as image composites or collages – abstract visuals of a context serving as a basis for subsequent ideas and analytic works. However, the linear method and the limited rendering options for a single prompt highly influence designers' imagination and representations of landscape subjects. Each prompt, including its techniques and the set of suggested renderings, conveys the influence of the engine's AI model and dataset, influencing subsequent ideas and inspiring or hindering new directions and possibilities.

Using Midjourney for landscape ideation and representation impacts all stages of the design process. For example, this engine can reverse the conventional survey, analysis, and design processes by generating visually compelling results at the survey stage, where questions about space and context, including its potentials and limitations, are at the forefront of site investigations. With each rendering, Midjourney suggests a new set of visual iterations for a site, further charging our conception of space and context with temporal and familiar qualities that make these renderings appealing and convincing. Paradoxically, they can sometimes obscure our understanding of context rather than clarify it. The potential of Midjourney to suggest new visual iterations requires an open mind, as it can lead to innovative and unexpected design solutions. This openness underscores the importance of adaptability in the design process. However, initial experiments with this engine revealed how much it changes, distorts, and misrepresents the actual lived experience of a site by suggesting spatial interpretation criteria and atmospheric characteristics not necessarily requested, expressed, or implied in the prompts. Nevertheless, this ability to quickly imagine what a site could feel like if a specific spatial or temporal characteristic were prioritized has many potentials for the discipline of landscape architecture.

Drawn from Corner's use of eidetic images, a framework for analyzing the relationships between collage fragments, eidetic interpretation or discovery measures, and notions of order can significantly contribute to understanding implied spatial measures and orders in landscape representational methods. Exploring site-specific discovery measures through collage can inform designers about Midjourney's visualization priorities and how its renderings evoke ideas of order. Eidetic interpretations refer to the memory informed images that Midjourney's renderings can convey. The enigmatic characteristic of this engine in generating the *familiar* in landscapes underscores the importance of three key concerns addressed in this chapter, each of which is crucial to our focused understanding of Midjourney's renderings:

1. How does Midjourney represent a familiar context?
2. What criteria leads this process?
3. What are the limitations of Midjourney in evoking eidetic imagination?

4.2 Method

Corner's approach to the interpretation of eidetic images underscores the role of creative interpretations of context through memory. This chapter delves into the open-ended yet situated dynamic between the designer's imagination and representation in eidetic collages and descriptions to assess Midjourney's

representations of these descriptions. This method emphasizes that creative interpretations of context through memory are significant in deciphering landscape design media.

On philosophical grounding, Chapter Two explored Corner's collages as temporal mappings and compared them with Picasso's atmospheric and fragmented representations of the Guernica event of 1937. It inspired eight interpretation criteria as potent entry points to deciphering eidetic collages: interpretations of space, emotions, hints to references, context or subject, methods of delivery, aspirations, audience, and neutrality-priority paradox.

These criteria can initiate multiple spatial-temporal dialogues, communicating a flow of ideas between the designer, the site, and the project brief. While they can serve as factors to generate Midjourney prompts for landscape ideation and imagination, Corner's approach to interpreting eidetic images can divide these prompts into those that (1) connote site-specific spatial and temporal factors, (2) eidetic discovery measures that enable their interpretation, and (3) ideas of order evoked by their combinations. This tripartite structure could provide a method to expand and explore context-specific relationships between spatial measures (enigmatically) conveyed within Midjourney renderings. The aim is to view the renderings as part of the creative design process, similar to a collage. Reimagining prompts' potential as fragments for the AI image-composite or collage could reveal unforeseen and unaccounted spatial and temporal relationships, enhancing the design process.

Midjourney generates unexpected spaces and spatial elements that can influence one's imagination of landscapes. The tripartite structure, drawn from Corner (1996), can help to hold AI-generated spatial relationships and orders accountable. Corner argued that intentionally combining the different, pluralistic yet site-specific perceptions of Cartesian and non-Cartesian, bodily-engaged, and temporal values can reveal how their synthesis extends the images to synoptic site perceptions — explicit articulations of eidetic interpretations. Corner's collages intentionally intertwine subjective and eidetic notions of Cartesian spatial representational measures, denoting pragmatic certainty, and non-Cartesian, bodily-engaged recollections of spaces and places, representing the evolving imagination of spatial interpretation measures. Exploring these relationships is crucial in Midjourney because the engine's interpretations of prompts results in a combination of expected and unexpected images, suggesting generic yet convincing relationships between quantifiable and unquantifiable spatial criteria. Corner's work inspires targeted experiments to examine Midjourney's capabilities in interpreting and representing these criteria as perceived within a specific site.

This chapter uses the eight criteria to interpret an eidetic collage of a specific location. The tripartite structural approach enables further articulation and expansion of other site-specific discovery measures. One can subjectively decide whether a collage element and juxtaposition connote (1) a site-specific spatial and temporal factor, (2) whether the collage implies a memory-engaged discovery measure, or (3) whether the juxtaposition conveys a specific notion of order. Regardless of how one divides intuitive collage descriptions into these three categories, this description and categorization magnifies designer's intentionality, enabling them to expand and articulate other similar contextual attributes and explore their influence on the generated renderings. While this collage and its open-ended descriptions represent a single example, suggesting a limited scope to explore Midjourney renderings, it reveals the engine's constraints in conveying site-specific spatial and temporal complexities.

Eidetic collages are tied to a specific site, context, and subject. Hence, designer's interpretations can inform Midjourney prompts and serve as a basis to assess the generated renderings. Although informed prompts can initiate an open-ended representational process like a collage, it is crucial to remember that Midjourney's AI model and dataset significantly influence how prompts are interpreted and images are generated (Dondero, 2025). [1]

Numerous experiments revealed that the engine does not always follow the operator's explicit prompts and instructions. Exploring and acknowledging this disconnection between spatial ideas (prompts), media (engine), and the operator's skill and knowledge is central throughout the visualization process, as their dynamics influence subsequent prompts and visual iteration choices. This understanding is essential for anyone working with Midjourney. While this engine can creatively contribute to eidetic thinking in landscape architecture by generating unexpected visual composites from the potential networks between prompts, it also disguises how these AI-enhanced word-to-image processes deterministically transform

[1] Dondero describes text-to-image generation technologies (2025, pp. 133-134):

> The processes of image generation have been in fact enabled by three major elements: (1) the creation of large databases of images accompanied by textual descriptions (which result from the analyses of these images), (2) the emergence of efficient feature extraction methods trained by deep learning algorithms, (3) the development of powerful and specialized hardware for model training and inference … All these operations start with a more fundamental kind of translation: that of images into numbers and verbal texts into numbers, resulting in lists of numbers known as 'embeddings' … Image generation models (diffusion models) use a 'large language model' component, or at least a model that 'understands' natural language (e.g., CLIP), in order to transform prompts into embeddings (list of numbers) that can be used by the machine. These learning models, which enable the translation between verbal and visual languages (coordination between two embeddings), are determined by the organization of the database contents.

This highly structured process can override and influence what the operator seeks to visually convey.

contextual ideas into measurable and unmeasurable spatial characteristics. Examining how different prompts generate and imply Cartesian and non-Cartesian spatial measures and stimulate eidetic interpretations is essential for assessing Midjourney's capabilities to echo site-specific perceptions.

4.3 A Context-specific Collage

Investigating site-specific conditions is crucial to the landscape architectural design process. The goal is to understand how 'spaces' transform into 'places' through perception, interpretation, and experience, and how landscape design decisions shape everyday interactions. Articulating the complexities of these experiences is a difficult task, as it can be subjective and reliant on biases informed by numerous factors, including how one understands notions of order within a site or context. Collage juxtapositions, like landscape site experiences, are rich in connotations of how spatial order is represented and perceived. Thus, they can serve as a basis for uncovering subjective descriptions of sites and their evolving social-political-environmental conditions.

Landscape projects are interconnected through geometric, Cartesian, historical, cultural, natural, vernacular, political, and emotional spatial orders. They raise ideas from memory, bodily perceptions of sites, and various eidetic concepts, including how Cartesian measures and frameworks inform non-Cartesian, experiential, and temporal reactions. Collage-making visualizes and prioritizes some ideas while signifying other, perhaps unintended, perceptions. The significant point here is that this prioritization is an intentional and informed choice, revealing how one thinks about a space or context. For example, Figure 4.1 is a collage of The Forks in Winnipeg. It signifies multiple spatial orders involving gathering, woodland, human settlement, and river. However, it reveals nothing about Winnipeg's winter, soils, vegetation, or flood season. The eight criteria — interpretation of space, emotions, hints to references, methods of delivery, context or subject, audience, aspirations, and neutrality-priority paradox — enable the imagination to engage in a dialogue with this eidetic image.

The collage (Fig 4.1) represents a subjective reflection of The Forks, a key location for the multicultural residents of Winnipeg, Canada. The site is located at the junction of the Red and the Assiniboine rivers, creating a fork shape contributing to its name, The Forks. The site has profound historical significance. Before the arrival of settlers, it served as a meeting place for the Indigenous peoples of Canada, where trading occurred, supported by the location's access to vast territories. Currently, The Forks is a community gathering complex, a landscape project and a tourist attraction. The location is rich in natural elements —

the river, wildlife, and vegetation, and invites various activities throughout the year, including skating on the rivers in the winter. The market, its vicinity to the river trail, the cable bridge that connects the site across the Red River to Saint Boniface, and especially the Museum of Human Rights, which is nearby and holds a significant place in Winnipeg's characteristic skyline, all contributed to the making of this collage, though none of these elements are visible in the representation.

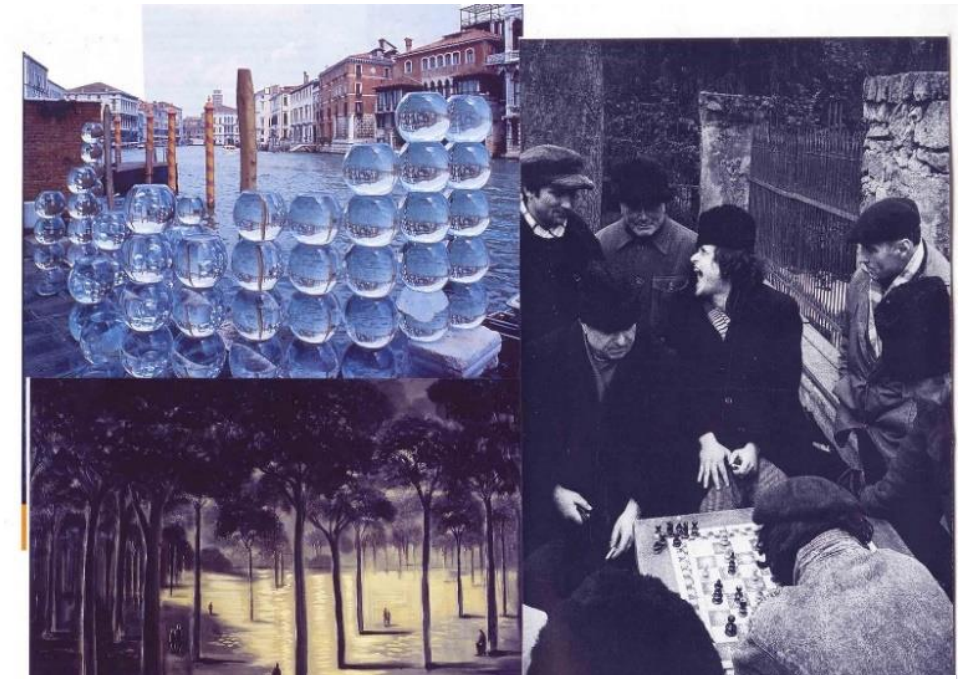

Figure 4.1 Collage or composite image of The Forks, Winnipeg, Canada (2023), by the author

What is explicitly visible is that this place represents joy, gathering, nature, shared laughter, festivals, and ice sculptures. At the same time, it represents moments of solitude, tranquillity, and silent, contemplative walks. The space is paradoxically silent and loud, paradoxically a place of happiness and sorrowful histories and a place of hope. The influence of seasons on the activities at The Forks is significant. Given the harsh cold winters in Winnipeg, The Forks is a living landscape project that warmly invites tourists and residents to engage in and be a part of its vision as a place.

Corner's tripartite structure can help us categorize these descriptions into spatial measures that can be visually verified, eidetically described, and temporally implied. His interpretation measures stimulate eidetic thinking, where one criterion can evoke and imply other criteria. In the collage (Fig 4.1), spatial and temporal connotations are perceived through various fragments and elements, such as colours, trees,

people gathering, playing and laughing, silent walks, a river, a boat, and sculptures. Order is conveyed through natural dynamics, seasonal changes, social dynamics, settlements, different communities, multi-national city, history, and Indigenous peoples. This collage carries bodily-engaged and memory-informed site perceptions informing complex tensions and interpretations.

Landscape architects can use collage or the Midjourney engine to create image composites conveying the described space. While collage allows designers to mindfully expand these place-specific descriptions, using Midjourney for the same purpose revealed a limited understanding of The Forks project. As seen in Figure 4.2, even when uploading the collage and explicitly requesting images of The Forks, the engine produced a composite that felt inspired yet random. [2]

To refine the representation, additional prompts describing Winnipeg as a multinational and cultural city were added alongside the uploaded collage to further evaluate how Midjourney depicts The Forks. However, as seen in Figures 4.3 and 4.4, the generated images depicted a market and a river but failed to reflect Winnipeg or The Forks. These initial experiments suggested that when the prompt asks for 'place', Midjourney adheres primarily to perspectival rules and often integrates influential references from its dataset or the internet.[3] It blends diverse landscape concepts, such as picturesque principles, with elements from previous projects or natural references. Notably, while the engine responds to prompts, it generates images based on biases that have developed over time (see Dondero, 2025). [4]

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[2] Textual and visual inputs (such as image URLs) of The Forks trigger Midjourney's AI model to prioritize specific groups ('clusters') of annotations and image embeddings within its neural network. This highlights the importance of how a dataset is annotated, labeled, and categorized, and how a prompt or image can activate specific ideas or visual associations.

[3] This image transition happens through diffusion models, which are probability models used to predict or produce variations, based on the dataset (Luo, 2022; Dondero, 2025, pp. 133-134).

[4] In "Semiotics of Artificial Intelligence: Enunciative Praxis in Image Analysis and Generation" (2025), Dondero examines the relationship between images and databases. Focused on "canonized artistic images", such as paintings, she examines "image databases as sources for image computational analysis and image generation". Dondero uses the concept of *enunciative praxis* — "cultural transformation over the long term (the relation between sedimentation and innovation)" — to examine how image generation tools like Midjourney, Dall.E, and Stable Diffusion influence future image generations (Dondero, 2025, pp. 111-113).

Dondero (2025, pp. 134-135) emphasizes the role of databases and algorithms, stating "the new images are generated through operations performed on all the images already produced, stored, and annotated according to style, author, and genre, within available databases such as Wiki art, Artsy, Google Art and Culture, etc". These digital sources transform 'visual cultural productions' into 'comparable and manipulable' inputs. They convert visuals and their various features and descriptions, whether sourced from other existing databases or implemented by programmers or scholars, into "substance made of numbers" and link them to specified annotations or keywords. Within this transformation, each image becomes comparable to all images within datasets. As Dondero states, "the commensurability of images contained in databases makes them manipulatable by algorithms" (Dondero, 2025, p. 115), enabling their analysis and generation based on multiple criteria (e.g., saturation, form, structure, style).

Dondero highlights how open datasets and models (e.g., Stable Diffusion) and closed ones (e.g., Midjourney) have different influence on new image generations. Depending on how a source image is annotated and which features are emphasized, prompts

Figure 4.2 The prompt: /imagine, URL for the collage, generate public space, The Forks

activate a region of a neural network, a web of relationships and patterns within the AI model. Datasets and AI models can be flexible or inflexible. In a flexible AI model, one can "decide to fine-tune an existing neural network, through annotations, building finer correspondence between list of numbers that identify natural language descriptions and the list of numbers that identify images" (Dondero, 2025, p. 137).

Midjourney currently does not have this flexibility. However, experiments show its access to a wide range of sources concerning landscapes, open spaces, and urban realms of different contexts. While Dondero's work focuses on the arts and does not directly relate to the landscape architecture discipline, her insights into how AI models are trained to analyze images, generate annotations, and suggest new prompts and visualization styles is significant. This automated process can shift human interpretation methods by suggesting multiple and relevant/irrelevant textual criteria and visual suggestions. She writes that text-to-image generation models can suggest distinct stylistic tendencies, which are "determined by the annotations of images enclosed in the database that a prompt actualizes" (2025, p. 136, 135-137). This influence emphasizes the role of image datasets and how their annotations impact new image generations.

On the operator's end, the 'Personalization key' is an update introduced in Midjourney on June 13, 2024. It became more complex with the 'Mood Board' update on December 17, 2024. The engine learns from users' preferences to predict and increase the 'accuracy' of what the user seeks.

In landscape architectural collages, as in Cubist paintings, temporal perception precedes spatial perception by staging temporal qualities between the subject and its context. Midjourney, however, creates temporally evocative representations that are not necessarily relevant. As will be demonstrated, this inaccuracy in spatial conception becomes a new ideational context when the engine asks, 'What else to do to this image?' This new ideational context invites exploration, encouraging one to question and experiment with new possibilities. However, the interpretations implied by this 'new context' can lead to prompts lacking relevance, necessity, or site-specificity, urging caution and critical reflection.

Figure 4.3 The prompt:/imagine [the URL for the collage], Chinese fish market

Figure 4.4 The prompt: /imagine [the URL for the collage], African fish market

Temporal inaccuracy in spatial interpretations generated by Midjourney is significant and begins with the conception of spatial orders, or what one means by space. Being mindful of this inaccuracy requires acknowledging the extent to which architectural vocabularies, including ideas of form, function, utility, measure, distance, time, circulation, and sustainability, influence interpretations of landscape media. The landscape architectural understanding of space is too broad to be abstractly homogenized by architectural vocabularies and preconceived conceptions of space and place. Midjourney's iteration of the collage (Fig 4.2) exposes this influence, which can potentially compromise the communication of critical content, such as bodily-engaged and culturally informed atmospheric moments evident in the eidetic collage for The Forks (Fig 4.1).

Landscape collages and AI prompts significantly differ from architectural collages and prompts, in that the scale of temporal and phenomenological experiences is entirely different and more open. The collage for The Forks (Fig 4.1) reveals how memories of the past influence perceptions of present site conditions. Collage-making and reading is not a passive process but an open-ended one that actively engages the imagination, and heightens the perception of space, place, and time between the subject, context, and the maker/viewer. This active engagement is a key aspect of the design process, involving exploring space and context. While Midjourney's text-to-image process can be seen as a collage-like process to investigate space and context, one must verify whether the prompts and the momentarily generated renderings reflect the evolving yet intimate nature of site perceptions and descriptions.

4.4 Terminology and Remarks

The terminology list became essential after generating many images and sub-images using Midjourney AI V5.2, released in June 2023.[5]

Prompt: The word "prompt," meaning "to incite or inspire" (Canadian Oxford Dictionary, 2nd ed., 2004, p. 1239), has been integrated into the design and ideational processes across various disciplines using AI engines. For example, prompting in ChatGPT involves asking questions to stimulate responses. In image generation with Midjourney AI, prompting involves suggesting or hinting at what the user desires to see, making the user the focal point of the AI's operations.

Prompt language: The pace of AI technology development is significant, and AI engines can transform spatial descriptions from plain text into vivid, detailed images. The table below provides a glossary of basic

[5] As of April 4, 2025, Midjourney V7 Alpha is capable of interpreting audio input.

Midjourney prompt shortcuts and their meanings. By default, the setting for generating images that depict an imaginary or existing space or place is perspectival. However, the operator can override these defaults by using specific settings and prompts, confidently shaping the output according to their vision. For example, they can use prompts such as /imagine *collage technique*, /imagine image URL (an uploaded input), and /chaos to produce alternative visual outcomes.[6]

typing …	**influence …**
/imagine	the engine opens a command box and seeks 'word hints'
/describe	the engine analyzes the image
description (x)	the designer hints at subjects and/or object
/imagine text (x)	the engine finds associating images and temporal connotations
URL link	the engine uses an image (map, drawing, other visuals) as reference
/blend	also possible through /imagine, this prompt can blend two to five images
--ar 2:3 (or a:b)	or any frame ratio
--chaos	offer open varieties (as a sculpture, as a space, as a graphic, …)
--no	subtract x (remove the trees for example)
--iw (image weight default: 1)	giving more or less (0-2) weight to image URL reference than the prompt
:: (hard stop)	to separate prompts if needed
8k	lighting extremes
image quality	mood, composition, cinematic, ultrarealistic, depth of field, etc.
--p	use personalized criteria
--s ('artistic flair')	apply style (dark, artistic, etc.), using numeric values from 0-1000
--sref (style reference)	a numeric value to make representations consistent
--style raw	neutralize Midjourney's 'aesthetic' filters (such as glow, dreamy, …, filters)
--seed (image reference)	insert a numeric reference number associated with a previous rendering
/remix	offers an opportunity to edit the prompt for a chosen image variation
image parameter	symbols (for example: --ar 16:9) suggests image parameter
…	

Table 4.1 A glossary of primary Midjourney AI prompts

[6] The Midjourney website suggests a descriptive composition of "subject, medium, environment, lighting, colour, mood, and composition" as a basic prompt structure. Available at:< https://docs.midjourney.com/hc/en-us/articles/32023408776205-Prompt-Basics> (accessed in Feb 2025). According to the website, 'medium' can refer to a variety of visual forms, including 'photo, painting, illustration, sculpture, doodle, and tapestry".

ML, DL, RL, and DM: [7] The concept of advancing knowledge through Artificial Intelligence is deeply rooted in human-machine interaction. Machine Learning (ML) involves humans teaching computers, while Deep Learning (DL) enables computers to teach themselves. Reinforcement Learning (RL) allows computers to influence future decisions based on prior learning and outcomes (Fernberg and Chamberlain, 2023). Diffusion Models (DM) are probabilistic models that enhance the accuracy of generated image results through mathematical probability algorithms. These learning models and algorithms are applied to supervised (with defined parameters), unsupervised, and hybrid datasets (also see Dondero, 2025). In simpler terms, the machine's response to prompts implies that a model or algorithm, as a way of processing, is applied to a dataset, which is a way of organizing or categorizing information.

AI image compositions: Using textual prompts to convey targeted spatial ideas is essential to Midjourney. These prompts act as semiotic signifiers, linking various visual connotations (like a tree) to spatial concepts (like a garden). This transformative process between words and images is highly influenced by Midjourney's dataset and AI model. In Midjourney, the user's prompt often leads the engine to incorporate its visual translations within the suggested image compositions (see Dondero, 2025, p. 137).

Connotative visual data: This notion highlights the complexity of conveying spatial feelings through familiar fragments of information, synthesizing both objective and subjective ideas of space and time. For example, an image of a 'mature poplar tree in Winnipeg' signifies the passage of time, the tangible existence of the tree, and the specific location of Winnipeg. A more complex spatial description, such as 'walking along a cold avenue of mature poplar trees in a Winnipeg neighborhood during a winter sunset,' serves as both a *temporal space* and *spatial time*, a means to emotionally charge conceptions of space and time. An avenue suggests a linear direction, evoking notions of streets or allées as temporal contexts and direction as spatial order. Depending on the number of trees, an avenue also conveys distance and time — spatializing time or the time required to navigate the distance. In this example, directionality is not merely data; it represents a pluralistic and non-site-specific spatial quality that describes an experience and can be quantified through subjective yet explicit means such as the view, distance, focal point, time, atmosphere, and colour. Thus, the connotations of an avenue are perceptible through the juxtaposition of various indicators rather than through literal data or individual fragments.

Prompt limitations: Multiple experiments revealed that the engine's understanding of prompts is currently limited. For example, when the prompt asks for atmospheric qualities as felt in a place, like a

[7] These terms and their application will not be examined here. They are briefly mentioned here for their current momentum in various disciplines influenced by AI.

landscape project, the engine applies composition techniques similar to those in picturesque paintings. While one can ask the engine to produce abstract, non-perspectival image composites, the default renderings for spaces and places follow perspectival and geometric rules. They also revealed that when one uses the term 'landscape *planning'* instead of 'landscape *architecture*,' the visual result is closer to the plan view. Similarly, when one emphasizes the discipline of 'landscape architecture,' the image results contain more buildings than landscape spaces. Furthermore, the sequence of descriptions, whether in a complete sentence or a series of keywords, does not affect the renderings.

Engine limitations: Midjourney's inability to generate targeted GIS or sieve-layer visuals or produce detailed images revealing logistics or specific facts from uploaded inputs has significant implications. This limitation underscores the importance of understanding the engine's capabilities and reliance on the context provided by the user. The engine's anticipation of inquiry contexts, whether related to landscape architecture, city planning, regional thinking, or ecology, heavily relies on keywords and how the scene is described. It tends to focus more on temporal goals rather than logistical specifics. While prompts like '/describe' hint at how the engine understands an image, multiple trials revealed that these descriptions recognize evident fragments of information, like a tree or car, and not specific locations or contextual conditions (also see Philips et al., 2024, pp. 37-45). This limitation can affect the user's ability to generate the specific visuals they require, potentially leading to a longer and more iterative process to achieve the desired output.

Random synthetic contexts: The experiments revealed a notable trend. The Midjourney engine often generates unexpected and contextually irrelevant spaces, adding spatial and temporal elements to the renderings that were not requested in the prompt. This analysis underscores the significance of providing context when generating and evaluating AI renderings, highlighting the user's crucial role in ensuring relevant outputs.

Recent updates (2024-2025): Midjourney V6.1 introduces new features that allow users to 'retexture and edit' uploaded images, similar to Photoshop. These updates currently have limitations, and multiple trials showed that they can significantly change the input image without asking. 'Retexturing' refers to changing the visualization style of an image at the scale of pixels by keeping the original image intact, such as transforming a hyperrealistic rendering into a sketch or animation-style representation. 'Editing' enables users to select specific parts of an image and modify them using a new prompt, allowing for localized adjustments and refinements. Midjourney V7 Alpha introduced its 'draft mode,' in April 2025 enabling the engine to generate fast visual iterations through real-time interpretations of the designer's audio input.

This shift allows users to create images through natural speech, evoking a sense of connection and familiarity through more fluid conversations grounded in spatial and temporal awareness.

The overall basics: As part of its built-in process, the Midjourney engine generates four variations for each prompt, displayed in a grid of four images. Users have minimal control over this platform aspect, which may vary with new versions and subscription types. Generally, users are asked to select the variation that best aligns with their desired outcome. They can subsequently upscale the chosen image for higher quality or select specific areas within the image to enhance or replace parts of the initial rendering. This feature is like Photoshop, where one can add or delete fragments. Users' control and intentionality are limited to crafting the prompt and determining the sequence of inputs, essentially deciding what to write and in what order. However, it is important to note that the sequence of prompts does not inform what the engine takes as priorities. Renderings can serve as input for the next prompts, though the engine significantly changes these 'momentarily accepted' renderings and conditions.

4.5 Initial Experiment

To examine spatial contexts and ideas, a method suggested by Steenbergen's study (2008) involves a design experiment where the context is determined, and an experimental design where the context is undetermined. The following three renderings (Fig 4.5 to 4.7) created by Midjourney depict scenes for Winnipeg, Canada; Tehran, Iran; and Leuven, Belgium. These visuals reveal how the engine responds to a consistent prompt: imagine city X, landscape view, urban context. This experiment excludes any other contextual indicators. The generated images suggest what the engine considers relevant or accurate, regardless of the context and site, providing material for studying ideas of space, place, time, and memory.

The initial experiment reveals that the engine generates arbitrary visual variations of city contexts based on generic and preconceived spatial measures from its dataset. It is unclear how the engine prioritizes, associates, and transforms site-specific spatial qualities, which have not been explicitly described as prompts, into 'momentary finalized' renderings. Nevertheless, the experiment demonstrates that mentioning a spatial context, such as Winnipeg, influences the manifestation and interpretation of site-specific conditions, such as the urban infrastructural elements within that context. Since contexts shape spatial interpretations, this experiment focuses on manifestations of contexts rather than design ideas.

The prompts for Figures 4.5 to 4.7 do not specify any spatial or temporal details. However, the generated images exhibit rich contextual qualities, making their representations appear distinct and place-specific.

This generative influence emphasizes the role of imagination in perceiving and justifying notions of order in Midjourney renderings. Like eidetic collages, these renderings convey the durational qualities of place through bodily and memory-informed perceptions. It could be argued that the speed of image generation influences how designers interpret the resulting images, shaping subsequent iterations and decisions. Chapters Two and Three studied how spatial and temporal perception are interconnected.

The relationship between ideas and images is constantly questioned in analogue collage-making and reading since the juxtaposition conveys site perceptions, hierarchies, orders, and priorities between various eidetic ideas, descriptions, and measures. The spatial and temporal dialogue inherent in collage-making produces temporally rich images, functioning as eidetic maps or atmospheric depictions of a space or place. Notably, Midjourney offers less control over eidetic measures, fragments, and juxtapositions. Its renderings reductively (and often generically) frame spatial qualities and descriptions as measurable entities, primarily conveyed through perspective, a method deeply rooted in traditional representation. This determinism aligns with how the AI process transforms any input. As Dondero (2025, p. 133) states, "all these operations start with a more fundamental kind of transformation: that of images into numbers and verbal texts into numbers, resulting in lists of numbers known as 'embeddings'". In other words, the engine's database and AI model receives and processes image inputs, annotations, and spatial descriptions as quantifiable data, where text and images are "co-present and made commensurable through chains of numbers" (Dondero, 2025, p. 115). Nevertheless, the generated renderings contain rich eidetic measures, either triggered by the operator's prompts or projected by the engine.

This thesis suggests exploring Midjourney prompts as crucial criteria to assess how *designers* eidetically interpret and describe a site or context, as how one defines and represents a context influences how a design vision is perceived. While a detailed, long prompt can suggest how the operator thinks about space and subject, a short prompt, implemented in this experiment, reveals what the *engine* prioritizes as essential information. One can study space-to-emotion relationships in Midjourney renderings by distinguishing between what the operator uses as prompts and what the engine conveys as the prompts' spatial and temporal representation. Like collages, Midjourney renderings *spatialize time* and visualize *temporal space,* foregrounding duration — emotionally intensive bodily perceptions — as key to interpreting spatial order within different spaces and places. The goal is to guide interpretations to eidetic observations and inquiries about spatial contexts, drawing situated information from the AI iterations.

The absence of contextual prompt inputs in the preliminary experiments highlights the role of the individual in expanding the hermeneutic circle between imagination and representation. It also

demonstrates how, in engaged action research, the researcher interacts with subjective data and employs inductive approaches to ground scientific findings within a discipline (Deming and Swaffield, 2011). The unfolding of spatial measures and signifiers, whether explicitly mentioned in prompts or implicitly conveyed in images, has significant implications for understanding how AI-powered image generation tools influence thinking processes and interpretations (see Leone, 2024, pp. 426-451). Evaluating prompts and renderings through context-specific eidetic discovery measures creates a fertile framework for design ideation and communication within a human-machine integrated design process.

Figure 4.5 Winnipeg, generated by Midjourney AI

Eidetic observations: Figure 4.5 presents a set of images illustrating how Midjourney interpreted the prompt: imagine Winnipeg, landscape view, urban context. These images depict the city's *atmospheric* qualities through its urban form, rivers, and skyline, and the seasonal characteristics of summer and fall. Notably, however, they omit key aspects of Winnipeg, including its Indigenous communities, vegetation types, wildlife, multicultural identity, winter season, and the Canadian Museum for Human Rights — an

iconic feature of Winnipeg's skyline. While these images do not represent existing conditions like a site photograph, they evoke a sense of familiarity through combinations of eidetic site-specific information and stimuli.

Figure 4.6 Tehran, generated by Midjourney AI

Eidetic observations: Figure 4.6 presents a set of images depicting how Midjourney interpreted the prompt: imagine Tehran, landscape view, urban context. The engine's conception of population density and urban form, including the skyline with mountains as a backdrop, evokes a sense of familiarity. However, the mountain ranges, often obscured by air pollution, are depicted with unusual clarity. Additionally, the rendering of morning and afternoon shadows are shown wrongly, as Tehran's buildings face north-south, with their 15°-21° orientation skewed toward the west. Notably, west facades rarely have windows. Key elements that define Tehran's streetscape, such as Chenar trees (Platanus orientalis), bazaars, historical sites, gardens, and mosques, are missing despite their prominence in the city's daily life.

Figure 4.7 Leuven, generated by Midjourney AI

Eidetic Observations: Figure 4.7 depicts how the engine interpreted the prompt: imagine Leuven, landscape view, urban context. The old town resembles the images above; however, these images fail to capture what the city, both old and new, feels like as a whole. As a bustling student town, Leuven is known for its international character, which is notably absent from the renderings. Additionally, the engine could have depicted various environmental aspects of Leuven's climate, such as its frequent rain and fog, and emphasized the city's commitment to sustainable transportation through the importance of train-bike dynamics and related infrastructure, including creeks, channels, and woodlands. Comparable to the images generated for Winnipeg, the renderings above demonstrate deliberate fragment juxtapositions and proportions resembling picturesque paintings, framing the city's temporal and scenic qualities.

4.5.1 Initial Outcome

The following observations from the initial experiments evoked numerous questions and ideas for this thesis. Midjourney's preconception of temporal quality and geometric order became evident after a few random trials, with multiple experiments revealing an arbitrary correlation between prompts and renderings. These observations also indicate how Midjourney differs from collage, where the human agent has better control over each section and fragments, including temporal ambience, spatial order, and the associations between descriptions and contextual conditions. These criteria reflect Corner's eidetic structure — spatial-temporal connotations, eidetic discovery measures including synoptic words, and notions of order.

Temporal quality: Prompts like 'landscape view' trigger Midjourney to generate visuals that reflect predetermined temporal qualities of landscapes, often producing idealized arcadian scenes that emphasize universally desirable conceptions of natural spaces. This bias becomes evident when the engine prioritizes 'landscape' over 'urban context,' disregarding the distinct spatial and temporal characteristics of different sites and settings. Instead, it creates an illusion of innovation and adaptability, suggesting it can account for diverse, discipline-specific criteria.

Figure 4.8 The prompt: Winnipeg 2050

For example, Figure 4.8 demonstrates the engine's ability to engage in futuristic regional urban design thinking. Furthermore, Figure 4.9 shows that the engine produces generic visuals when asked to generate a 'map view' of *existing* situations.

Figure 4.9 Prompt: map view, tree canopies and the two rivers in Winnipeg, render as they are in reality, at The Forks.

Geometric order: The engine usually follows picturesque principles, which encompass "style, ideological operations, and aesthetical values" (Herrington, 2006). Moreover, its unique capacity to combine specific perspectival angles with specific connotations can generate and evoke a diverse range of landcover types, from agricultural sites to landscape concepts such as Chinese gardens or char-bagh.

Arbitrary word-to-image associations: The engine's ability to generate broad relationships between sign, signifier, and signified, producing non-situated visual correlations between prompts and images, is significant. For instance, using 'plan' instead of 'map' in the prompt resulted in renderings similar to those in Figure 4.9 regarding angle of view and inaccuracy. While outside the scope of this research, this

observation is crucial for analyzing how the engine's image dataset, annotations, and AI model structure image generation.[8]

Inaccurate representations of contextual conditions: The engine's generation of imprecise visual variations of contextual elements is critical. It aims to evoke realistic illusions of context but often neglects or disguises the critical factors that shape the spatial environments and atmospheric qualities to that specific context. Figures 4.10 to 4.12 capture the engine's reaction to the 'future of city X' prompt and can exemplify all the observations above.

Figure 4.10 Prompt: /imagine future city, Winnipeg

[8] See (Dondero, 2025, pp. 133-135), for a discussion of the relationship between images, annotations, and numeric embeddings, which shape how prompts activate 'regions of the dataset', thereby narrowing the image generation process.

Figure 4.11 Prompt: /imagine future city, Toronto

Figure 4.12 Prompt: /imagine future city, Vancouver

Several attempts using the prompt 'future city' in the Midjourney engine revealed a play between familiarity and ungrounded or impossible illusions of the future. These ungrounded aspects of AI-generated images are studied as hallucinations within Artificial Intelligence research.[9] Farquhar et al.

[9] As seen in recent studies, such as those by Farquhar et al. (2024), researchers are investigating quantitative methods to reduce hallucinations in Large Language Models (LLMs). One approach involves measuring "semantic entropy," which reflects the variety of meanings generated in response to an input. Scientists suggest that higher semantic entropy, indicating multiple uncertain interpretations, suggests a higher likelihood of hallucination.

(2024, p. 625) define hallucinations in Large Language Models as "confabulations— which are arbitrary and incorrect generations." While perspectival and hyperrealistic images, such as those created with the Midjourney tool, may evoke false memories and ideas charged with illusions and emotions of certainty, the paradoxical feeling of intentionality and uncertainty inherent in eidetic landscape collages can transform the collage medium into a conduit for communicating more profound and situated concepts. Since Midjourney visuals can suggest that any design is possible anywhere *as an image*, they can also contribute to the design process by acting as a creative, collage-like medium that stimulates eidetic, imaginative, and forward-looking ideas and interpretation methods. It is crucial to investigate the possible and impossible interpretation trajectories when working with image composition tools such as collage and Midjourney for landscape imagination and representation.

The origin and intensity of hallucination and perception of familiar ideas distinguish collage from Midjourney. Although all four bullet points, including temporal quality, geometric order, the association between descriptions and images, and the representation of contextual conditions, are in question in collage-making, they often appear as a familiar and relevant vision or hallucination created by Midjourney AI. However, designers have a significant advantage in collage-making, as they have better control over spatial ideation and hallucination. Collage can represent the experienced or familiar desired space, whereas Midjourney can represent the unexperienced or unfamiliar desired space. [10]

Landscape design sites have complicated social, historical, and geographical issues. The initial experiments revealed that the Midjourney engine frequently struggles to account for site-specific interpretation measures and their interconnected manifestations in reality, which are perceptual factors and qualities heightened during collage-making and reading. The elegance of the generated images, the futuristic feeling of space, and the lush green hues of trees evident in the experiments suggest an overarching temporal mode of visual communication, emphasizing perceptions of time (duration) over site specificities. A structured interpretation method can enable designers to examine and calibrate Midjourney's representations of these duration-intensive spatial and temporal qualities.

[10] AI engines such as Midjourney evoke illusions of familiarity through emotionally charged visuals, projecting intense emotions onto the mind and aligning ideas or their visual manifestations with the body. This concept is used in augmented reality and was discussed by Bergson through his idea of zero-distance affection images (Bergson, 1896; tr. 1911, p. 58). Alternatively, neurocognitive science suggests that one can get the feeling of the context of space, a discussion, or memory through "attentional biases and emotional stimuli" or what one values and desires at a specific time, which preconditions perception and informs what we see (Gibb et al., 2016, p. 65; Dominguez-Borras and Vuilleumier, 2013). The self-referential temporal flux alters emotions in and of space, aligning the mind with the viewed matter or evoked ideas, "improving memory for contextual details" (Schmidt et al., 2011, p. 229), or possibly creating false memories of never-experienced visual contextual matters.

4.6 Main Experiments

This subsection focuses on Winnipeg as a context for experimenting with Midjourney. Table 4.2 applies Corner's eidetic method to the collage descriptions for The Forks (Fig 4.1). His writings (1996) suggest seeing landscape collages as a vehicle to communicate site-specific spatial and temporal measures. It is a means to openly explore eidetic interpretation measures and a way to examine how their combination implies or conveys notions of order. This table exemplifies Corner's approach to expanding and categorizing potential spatial interpretation trajectories of the collage.

Eidetic collages can evoke multiple interpretation measures, as seen in the intuitive descriptions for the collage of The Forks. However, Corner's method facilitates a focused structure. It encourages exploring the possible and unforeseen, evident and disguised relationships between collage fragments and how their juxtaposition evokes eidetic ideas and notions of spatial order. This approach can provoke situated interpretations of time, space/context and inspire alternative interpretation and representation trajectories. Table 4.2 summarizes the complexity achieved through an open yet critically structured strategy. The emphasis should remain on topological and synoptic seeing, essentially seeking how one criterion, as a fragment of information, becomes a vehicle to communicate other criteria. Since collage is open to interpretation, the tripartite framework can gradually evolve through the active participation of individuals or collectives, making them integral to the process and its outcomes.

Designers can use this framework to unfold critical site-specific prompts that signify or disguise other spatial criteria and prompts. This framework also indicates that although AI engines are accessible to any designer, landscape architect's knowledge, experience, and skill can elevate the impact of design decisions in the Midjourney tool by expounding on and grounding these criteria. The framework's potential to unfold critical site-specific prompts is appealing to the creative process of landscape design.

The initial experiments reveal that Midjourney misrepresents contextual conditions, creating a new 'context' that influences subsequent thoughts and interpretation measures. Hence, examining how the engine represents the context is crucial. To do so, Corner's method for exploring eidetic and memory-engaged discovery measures by investigating the relationships between Cartesian and non-Cartesian spatial measures and Steenbergen's explanation of design projection (Steenbergen, 2008) provides a pragmatic structure for assessing the engine's capabilities in communicating contextually nuanced site renderings. Two experiments on Midjourney are further explored:

1. **Experimental Design: context is the variable.**
    - **Structure**: The experiment explores how the engine conceives of space and spatial ideas without specifying a specific location or a design agenda.
    - **Method:** It starts with a one-word prompt, like 'urban', and gradually adds more situated word prompts, like 'downtown' or 'park', to see how the engine synthesizes spatial and temporal orders and connotations of Winnipeg.
    - **Result**: An initial comparison between the outputs reveals the engine's tendency to deterministically frame what the combination of prompts signifies.

2. **Design Experiment: context is determined.**
    - **Structure**: The experiment explores the extent to which the engine can take explicit inputs to modify an existing context, such as a parking lot in Winnipeg.
    - **Method**: The intention is to examine the engine's capabilities to communicate the context through explicit – Cartesian and implicit, non-Cartesian – spatial measures.
    - **Result**: An initial comparison between outputs reveals the engine's heavy reliance on duration-intensive contextual indicators. It uses notions of memory and time, incorporating subtle temporal indicators within different perspectives to persuade the user of its accuracy.

Evident or Disguised Spatial Discovery Measures in the Collage of The Forks (Fig 4.1)					
fragments		notions of spatial order: eidetic ideas and manifestations of order			
examples of spatial-temporal connotations		examples of site-specific eidetic measures	examples of spatial orders		
			by concept and land cover types	by representational methods	by ideas
• arcadia • wellness • fairness • pleasure • care • all-season joy • post-Covid • taxes • events • anti-racism • equity • global warming • resilience • bioremediation • ...	• snow and blizzard • lakes / retention ponds • flood • history of colonialism • garden-city • flora and fauna • high-rise towers • urban sprawl • frozen river • SUV more than sedan • urban grid • hockey • trail • immigrants • refuges • warming huts • automation • virtual space • Winnipeg skies • ...	• land and historical narratives • climate resiliency • missing or murdered Indigenous women in Winnipeg. • mass grave of Indigenous children • unmarked graves • distance marked by time during cold weather • shelterbelts • multicultural society • characteristic neighborhoods • urban density • wind chill • geese and other animals • street maintenance during winter times • festivals (food, theatre, etc.) • competitions • ice skating • ...	• agricultural • industrial • urban • parks • ... • modernist • Post-modern • ... • vernacular • zero-energy • ... • American • European • Chinese • ... • Meta • ...	• Cartesian • VR/AR/AI • point-cloud • GIS • internet • social media • Midjourney AI • AI engines • SWOT • ...	• climate change • wealth • control • immersion • comparison • network • collective desires • movement • health • EV charger • design intentions • virtual cities • ...

Table 4.2 Evident and disguised spatial discovery measures in Figure 4.1

4.6.1 Experiment One: Site Undetermined

Attempt 1:0 This experiment aims to evaluate how the machine generates a context, in this case, a public space anywhere. The prompt*:* /imagine, public space.

Figure 4.13 Attempt 1:0

Attempt 1:1 The prompt ‘urban’ and ‘park’ led the machine to a more widely accepted landscape-view, a connotation of public space in an urban setting. The prompt: /imagine, public space, urban park.

Figure 4.14 Attempt 1:1

Attempt 1:2 The prompt ‘Winnipeg’ led the machine to perceive Winnipeg as context. The following observations reveal how these renderings project various connotations, eidetic discovery measures, and spatial orders of the City of Winnipeg. These observations are extensions of Table 4.2, aligning Winnipeg’s image with this city’s idea of memory. The prompt: /imagine, public space, urban park, Winnipeg.

Figure 4.15 Attempt 1:2

- Regardless of tree types, tree forms are relatively correct for the ecozone of the context.
- In the last variation, the engine included two towers as a backdrop to ground the image of the city. The skyline and distance between the towers are similar to what one sees in reality, which explains the significance and characteristic of the city and how it is different from other cities, such as Hong Kong. The backdrops might lead designers to prioritize the last image over other variations.
- The prompt did not inquire about the architectural and unexpected shelter-shaped resting places, which are similar in proportion to fishing cabins and imply similar ideas for the Warming Huts, a design competition and festival held in Winnipeg in the winter.
- It is evident that in two cases, the shelters are located on what Kevin Lynch termed nodes, and in the other two cases, they are treated as landmarks on a path. They are strong spatial indicators, order-implying landmarks, and perhaps oases during the harsh winter season. The prompt never asked for a circular form, which reveals a connection between a gathering, a mark or node, as the default in the shape of a circle.
- The engine prioritized the summer season and suggested a variety of public spaces, such as small-sized community spaces made of semi-transparent forms.
- The preconceived indicators for creating the image include: season, ecozone, backdrop, skyline and distance, shelter-shaped resting places, proportion, warming huts, shelters' positioning, oasis, and circle or curve. These ideas reflect the engine's conception of an urban park in Winnipeg. The observations reveal the engine's visualization priorities, spatial association methods, and order projections regarding Winnipeg, as represented through composite images.

Attempt 1:3 The prompt ‘two rivers’ led the machine to calibrate the context of Winnipeg further. The prompt: /imagine, public space, urban park, Winnipeg, the two rivers.

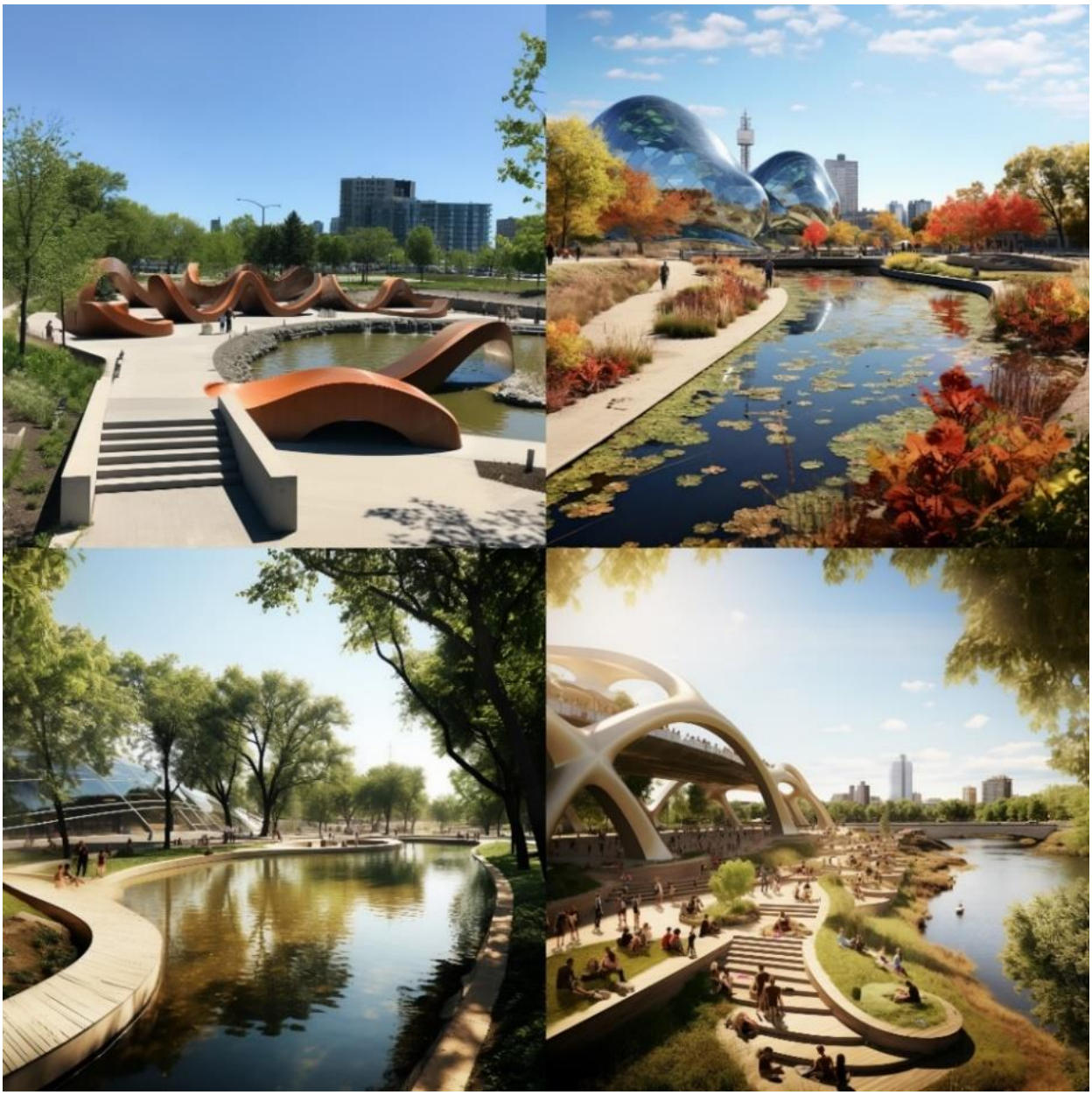

Figure 4.16 Attempt 1.3

The repeating indicators from the last experiment are further supported by the following:

- The path's curved shape and construction heights are close to what one experiences in the existing condition. This observation is not meant to judge whether they are right or wrong, but to uncover what the machine takes and communicates as given.
- The engine correlated the river with murky water and bridge connotations, implying other spatial-temporal connotations, such as crossing, edge, border, prospect, and look out as relevant supports.
- The colours of the environment are similar to the existing condition of the Assiniboine and Red rivers.
- Spaces are mid-scale, not too big or too small, which correlates with the population dynamics in Winnipeg.
- Notably, there is no indication of wildlife in these spaces, underscoring their use for humans.
- In the first image, the public art implies a correlation between an urban park and a public space in Winnipeg; a mega-structure for a gathering place is the attraction factor. In other words, in two out of four variations, spatial functions are suggested as an alternative for a public space, not to mention that similar structures are in the background of two other cases. These were unsolicited functions and unexpected assumptions.
- Preconceived indicators: summer and ecozone**,** measurements, murky river water, colours, scale, and spatial functions are preconceived context indicators.

Attempt 1:4 The prompts ‘The Forks, boat and geese’ led the engine to shift scales, views, and contents of the artificial context. The prompt: /imagine, public space, urban park, Winnipeg, the two rivers, The Forks, boats and geese.

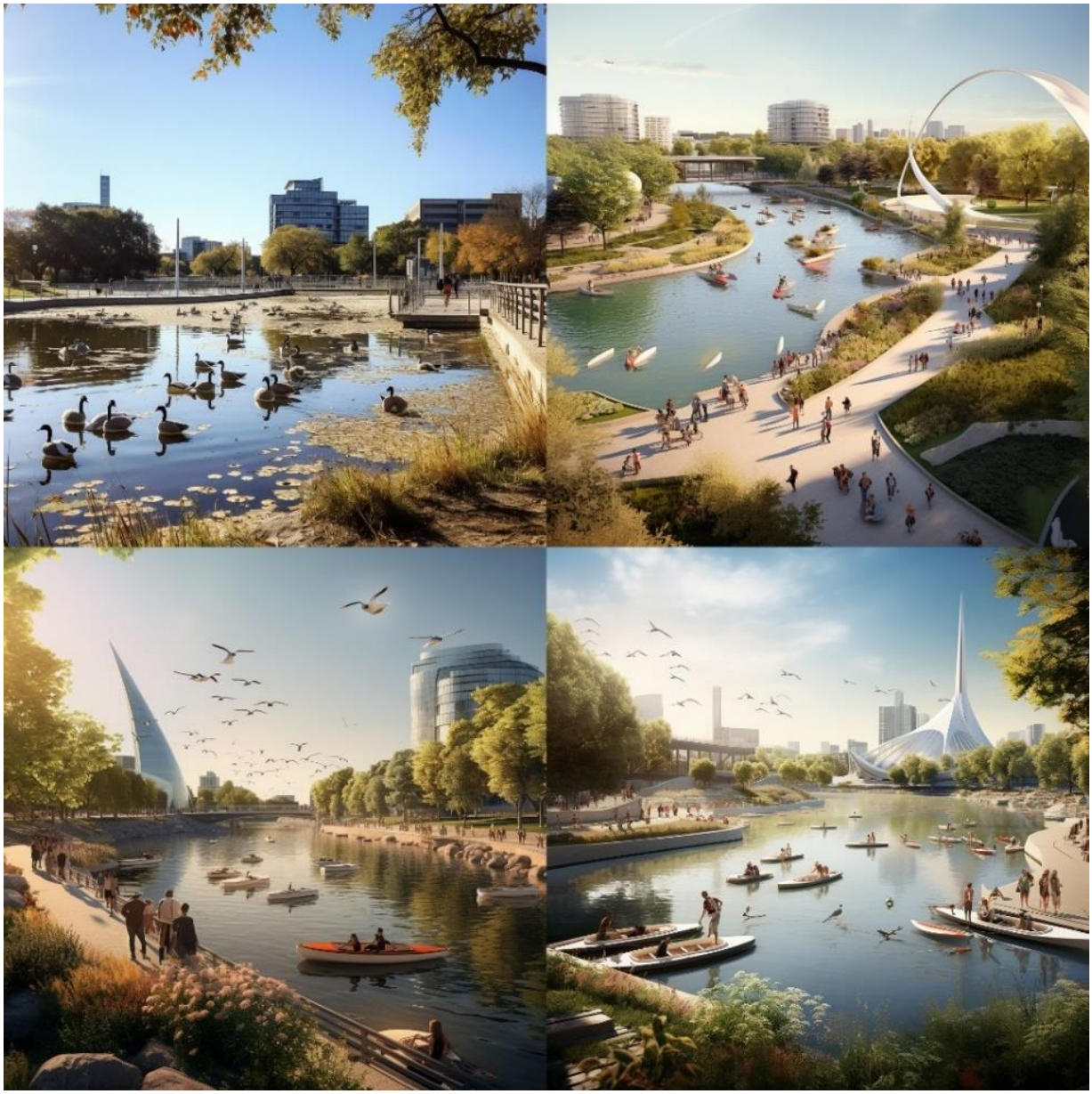

Figure 4.17 Attempt 1.4

- In three out of four cases, a public landmark appears to be the overarching suggestion of the engine.
- The width of the river or its materialistic qualities, such as its clarity, contradicts the experience.
- The engine's preference for juxtaposing familiar but inaccurate fragments over precision is a key observation. This tendency creates an illusion of a familiar space or experience, which may not accurately represent the actual site.
- The engine's ability to produce impactful spatial alternatives related to the site is a significant finding. The outputs, which uncritically mimic site-specific Cartesian and non-Cartesian spatial measures and ideas, such as land elevations, reinforce the eidetic perception of public space's safety against flooding.
- The presence of birds (geese and gulls) and people during the summer is imaginatively timely.
- The engine's communication of the site's perfect moments is notable. However, these images do not reflect the actual context, including the precise width of the river, the imperfect or unpicturesque view, and the ways different people of different cultural backgrounds engage with the site.
- Preconceived indicators such as landmarks, juxtaposition over precision, land elevations, flora and fauna, and flooding carry significant weight in communicating the context.

The same could be argued when adding known landmarks in Winnipeg to the prompt box. For example, a prompt like: /imagine, public space, urban park, Winnipeg, the two rivers, The Forks, boats and birds, Museum of Human Rights, cable bridge. These landmarks led the engine to generate variations of existing conditions (See Attempt 1.4.1). This process illustrates the working of diffusion models, which are probability models that generate images by adding and then reducing noise to images, thereby creating variations of the original image.

Figure 4.18 Attempt 1.4.1

Attempt 1:5 The following experiment adds site-specific events to the prompt: /imagine, public space, urban park, Winnipeg, the two rivers, The Forks, boats and geese, winter view, ice skating, and possible flood.

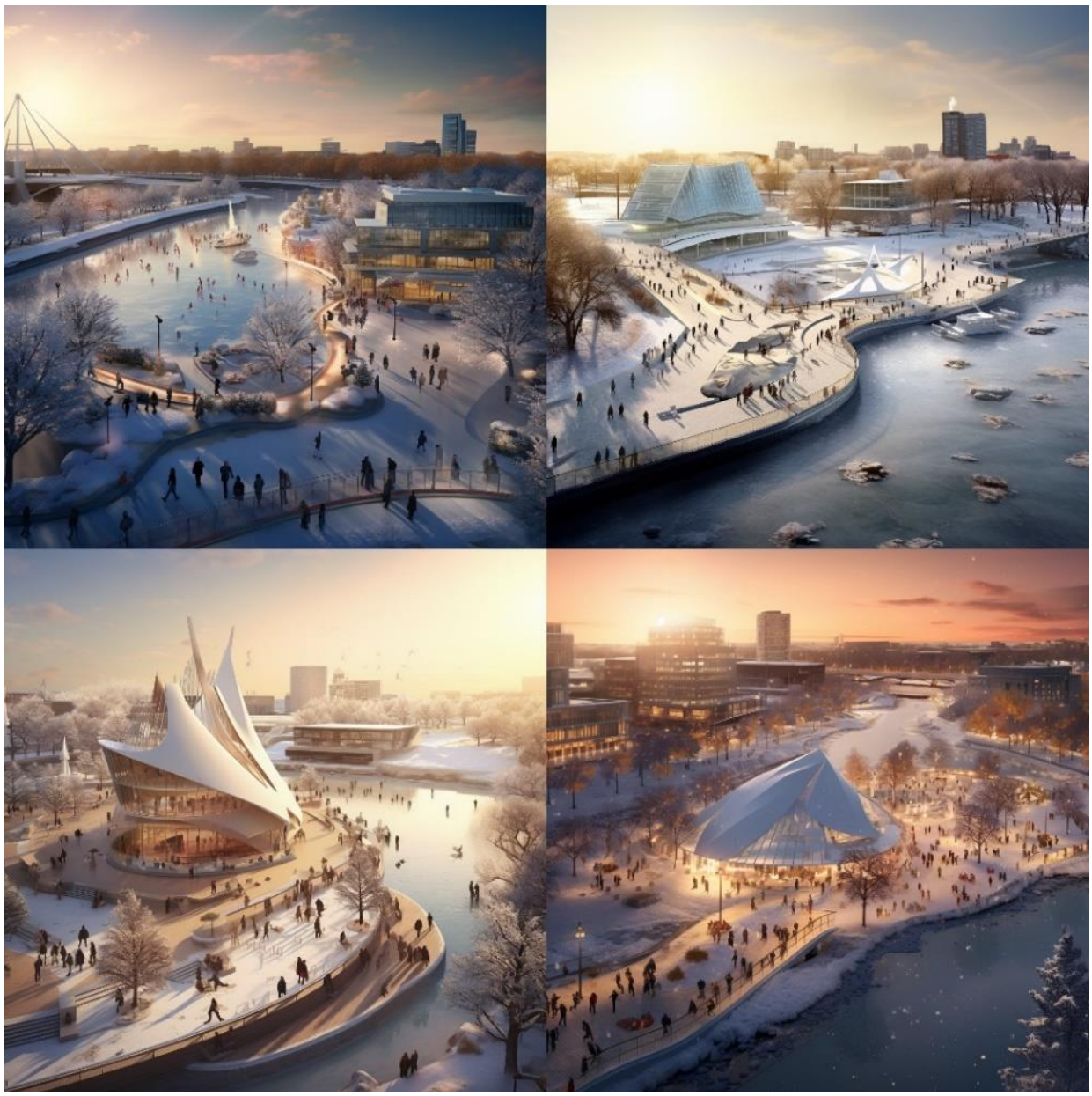

Figure 4.19 Attempt 1.5

- The AI engine suggests that architectural functions could further support the public space idea in Winnipeg's winter season. Since the prompt never requested architectural elements, this association with the notion of public space could influence one's understanding of spatial order within a context.
- The river is frozen or fit for skating and liquid or fit for sailing, which is impossible but reveals contextual indicators at The Forks. Hence, the renderings could contradict other possibility and necessity correlations, such as people and animals in close vicinity, the light, hours, the population, day of the week, foot traffic, events, and temporary furniture. These 'possibility-necessity correlations' refer to the relationship between what is possible and necessary in a given spatial context and how these correlations can be disrupted or contradicted in the design process.
- The suggested visuals feel too clean, whereas, in reality, the snow in Winnipeg makes it difficult for the space to appear as the engine suggests.
- An unsolicited prompt informs the output and temporally leads viewers to perceive the beautiful artificial space as perfect design iterations. The issue is not to disagree with their feasibility, but with the assumed contexts generated/designed by the machine.
- Preconceived indicators: architectural functions, frozen and liquid river, winter light quality, clean and perfect, possibility-necessity correlations.

To highlight the significance of possibility-necessity contractions and contradictions in the Midjourney engine, the prompt 'homelessness' examines how less-expected context indicators influence the results (See Attempt 1.5.1 on the next page). The prompt: /imagine, homelessness, Winnipeg, city, snow, frozen streets, street view, public space, fire, the homeless supporting each other.

Homelessness is not just a social issue but a complex social notion that embodies a multitude of challenges. The discipline of landscape architecture, while striving to create innovative design interventions for everyone, including those experiencing homelessness, must navigate an implicit sense of safe territory that separates various community groups with different life conditions, health issues, and physical limitations. The intricacy of these circumstances demands a site-specific approach to defining spatial contexts, which is crucial in creating spaces that everyone can call safe, enjoyable, and home.

Are homeless people an essential part of Winnipeg's spatial context? Although this particular matter falls beyond the scope of this thesis, the idea that different social groups and locations require unique contexts for spatial design ideas to succeed is central to inclusive or exclusive designs. The AI engine cannot

understand that landscape architectural spaces host corresponding activities with potentially contradicting interpretation measures, intending to achieve utility and beauty.

As seen in the images below, the engine generates a variety of visuals focused on ‘homelessness’ without suggesting any significant insights or valuable information about ‘supporting each other,’ despite this being mentioned in the prompt.

Figure 4.20 Figure 1.5.1 showing the concept of social issues and the images produced by Midjourney AI

Attempt 1:6 This experiment, which combined spatial and temporal indicators of *place*, such as 'The Forks,' with the *situation* 'homelessness' in the prompt, aimed to understand the engine's response to the dynamics of public spaces in urban areas. The prompt: /imagine, public space, urban park, Winnipeg, the two rivers, The Forks, boats and geese, winter view, ice skating, the homeless living around the river edge, firepits for people experiencing homelessness.

Figure 4.21 Attempt 1.6

- The generated images prioritized the prompt ‘homeless’ over other spatial-temporal indicators such as boats, birds, and ice-skating. However, the overall scene is grounded in a context similar to The Forks.
- The images indicate a tendency to ‘artistically frame’ and obscure painful truths about different life conditions. Health or age restrictions are other relevant examples influencing how one perceives space. Despite issues raised in previous iterations regarding accuracy, functionality, and the correlation between suggested images and envisioned ideas of an urban public park, the tendency to overlook these complexities, should be regarded as a criticism of these renderings.
- Individuals facing homelessness or those physically impaired can find solace in public spaces that authentically manifest a sense of mutual respect. The images in Attempt 1.6 imply a gathering of homeless people around firepits but do not mention their dynamics with the conditions of The Forks. Instead, these images imply division by territorializing spaces, leading to differentiating public spaces and open spaces for the homeless, which can be assumed unsafe by most people.
- The images in Attempt 1.6 suggest that any gathering is appropriate and acceptable anywhere.
- Preconceived indicators, such as contextual conditions, ideas of territory, and social conflicts, were used to evaluate these images. These measures are eidetic since they are rooted in memory and experiences of place, enabling viewers to interpret how the engine can project duration-intensive spatial and temporal notions of order.

Conclusion on Experiment One: Context is a Variable

This experiment revealed Midjourney's limitation in communicating the context of inquiry. It also showcased the potential of collage criteria to articulate these limitations and enhance the communication of unique spatial qualities across diverse contexts and scales. By exploring the potential correlations between situated spatial and temporal connotations (such as the interaction between different elements like trees, water bodies, and seasons), eidetic criteria (such as the memory-based interpretation of spatial elements like a childhood memory of a park), and ideas of order, designers can use these 'inter-operational' criteria to uncover situated Cartesian and non-Cartesian spatial measures and relationships. This approach can generate context-specific landscape prompts and renderings that are rich and evocative.

Both collage and Midjourney AI are tools to stimulate various spatial interpretation and conception methods. However, collage distinguishes itself from Midjourney by engaging the body, memory, and personal experiences while creating image composites. This difference amplifies the critical role of the human designer in determining how to interpret these intuitive measures, including which measures to prioritize and how to represent them in a way that evokes rich and pluralistic site-specific perceptions. As seen through these experiments, eidetic interpretations can play a pivotal role in examining the relevance of Midjourney renderings.

Analyzing the interplay between physical order and spatial and temporal connotations can reveal insights into interpreting eidetic discovery measures — how memory and site-specific knowledge influence people's perception of spaces and places. This correlation is crucial in the survey stage of the landscape design process, as it illuminates diverse perspectives on space. While this correlation may be underplayed in Midjourney AI, it is intensified in collage interpretations. The experiments demonstrated that using collage to expand criteria, mainly through spatial and temporal connotations, eidetic discovery measures, and conceptions of order, promotes a *nonlinear open-ended* ideation process. Drawn from Corner's work, this recalibration in understanding landscape spatial measures can contribute to refining Midjourney prompts and evaluating its renderings.

Conventional landscape representational media like maps, plans, and renderings can overlook the site-specific correlations between images and ideas and the kind of order their combinations imply. Spatial connotations, such as scale, measurements, flora and fauna, ecozones, frozen rivers, flooding, and shelter, convey temporal and explicit ideas of time and spatial order. These fragments of information have different weights and levels of importance in the landscape design process but are often arbitrarily predefined in Midjourney renderings.

4.6.2 Experiment Two: Site Determined

Attempt 2:0 This experiment investigates the practical implications of the Midjourney engine's ability to interpret explicit Cartesian and non-Cartesian prompts. It begins by assessing the engine's accuracy in generating spatial representations based on detailed Cartesian descriptions of an actual site in Winnipeg. The site, a parking lot measuring 155 by 38 meters, is bordered by Donald, Saint Mary, and York streets (Fig 4.22). The uploaded image is converted into a URL link, which is then used as the context for applying prompts. Unlike the previous experiment, which outlined gradual stages of how the engine generates a synthetic context, this experiment explores how the engine visualizes a known, actual site and how different spatial and temporal connotations alter the order and eidetic interpretation measures within that context.

Figure 4.22 Attempt 2:0

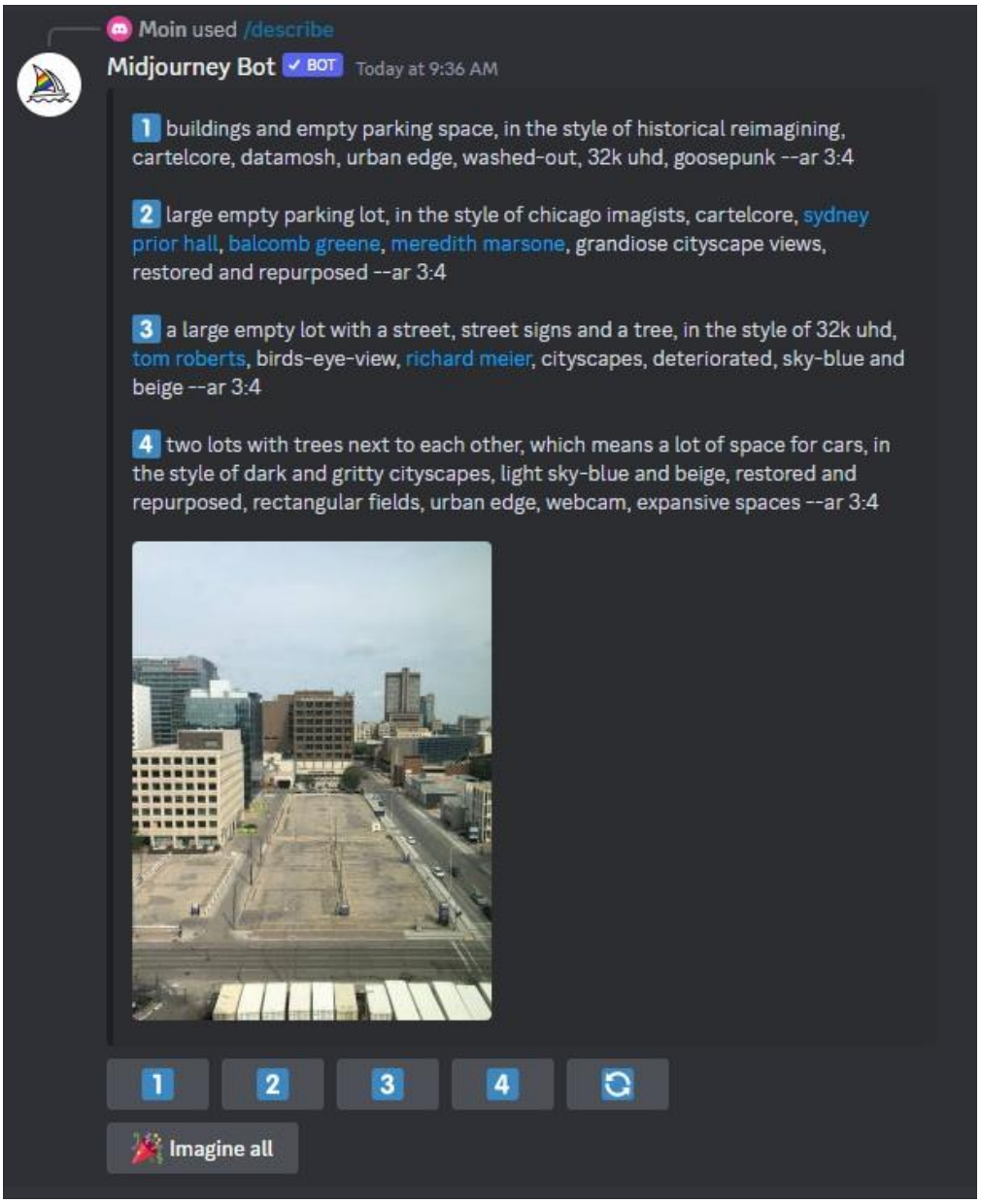

Figure 4.23 Attempt 2:0 the prompt: /describe

The prompt:/describe image (Fig 4.23) descriptions reveal that the engine is not connected to online databases such as Google Earth Pro.[11] Another simple prompt was used to test whether the engine is connected to visual databases such as Google or Instagram. The prompt is: a parking lot in Winnipeg, 155

[11] Multiple experiments with the prompt (/describe) revealed an important insight about Midjourney. Depending on the uploaded image — considering aspects such as subject, context, style, genre, and other characteristics — the engine suggests that the image is inspired by or created in the style of a specific individual, such as a painter, photographer, or architect. On the image generation side, when using an individual's name, the engine produces images that *resemble* their work. This finding suggests that Midjourney's database can include or exclude specific individuals and their unique content and visualization styles.

by 38 meters, Donald and York Streets. The generated images reveal that a) the engine appears disconnected from Google Earth Pro, and b) the engine did not react to actual measurements of 155 by 38 meters. This lack of accuracy in spatial grounding will undoubtedly change in future updates.

In Figure 4.24, since the image on the top left looked more proportionate to the source image, the engine was asked to give more variations. The intention is to see if the preliminary output can calibrate and align with the input. Figure 4.25 reconfirms that the engine is (as of now) disconnected from map sources, which is significant as it limits the generation of images based on existing spatial data.

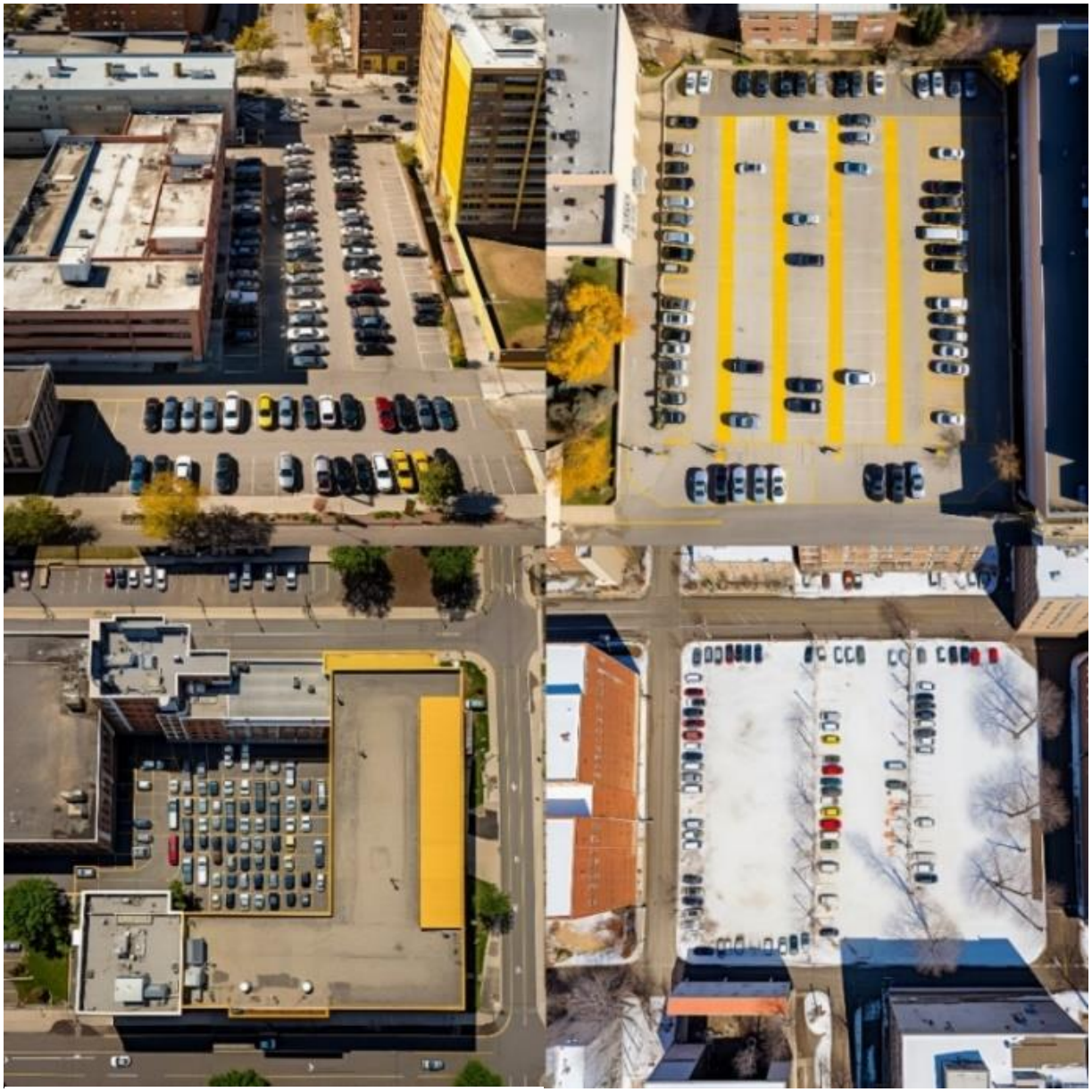

Figure 4.24 Preliminary calibration test

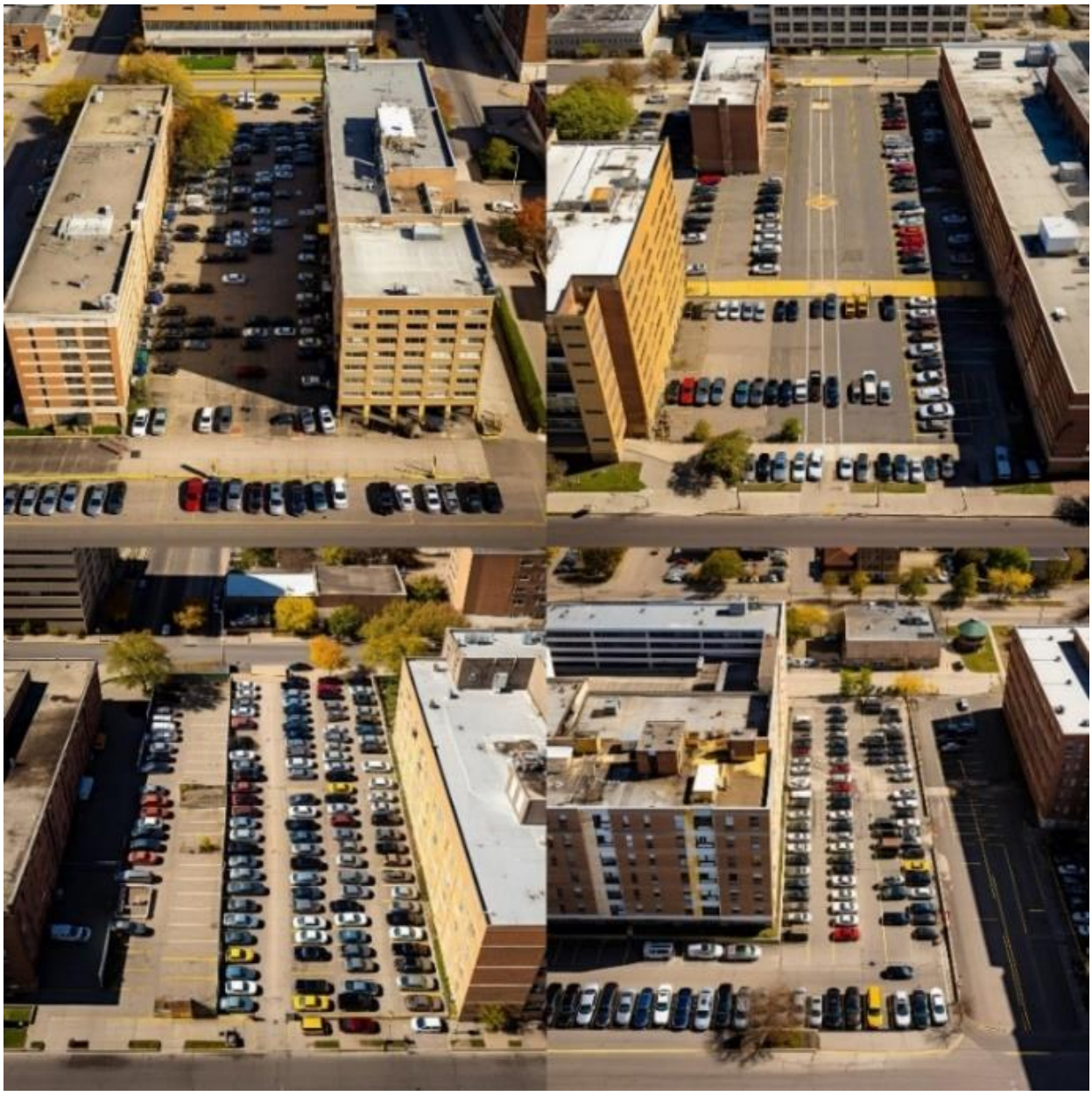

Figure 4.25 Secondary calibration test

Attempt 2:1 The influence of the image's URL for the parking lot is evident. In this experiment, the engine is prompted with a spatial order of 'garden' to assess its ability to generate the temporal connotation of a garden familiar to a citizen of Winnipeg within that specific context. The subject under examination is not whether a garden looks a certain way in the generated images but how the engine interprets and generates spatial order. The parking lot (the context) serves the Millennium Library, City Place, the Canada Life Centre, and the RBC Convention Centre. The focus here is on Winnipeg-specific eidetic measures, e.g., how space feels and functions during winter. It is important to distinguish between superimposing and designing. Prompt: /imagine, https://s.mj.run/-HJDYcCeIP8, superimpose a public garden within the parking lot.

Figure 4.26 Attempt 2:1

An initial finding suggests that the engine changed the building settings. However, the proportion, distribution, and juxtaposition or collage made by the engine seem and feel correct, and the spatial and temporal feeling seems correct. It is interesting to note that the source image may have informed the size of the trees and shadow angles as the prompt did not mention the city of Winnipeg, which is an indicator of other spatial orders and eidetic measures, namely, multicultural city, snow, birds (geese, gulls, etc.), hockey, Indigenous communities, SUV cars, time-oriented traffic, and noise sources.

Attempt 2:2 The intention is to see how adding Winnipeg as a context influences the engine with the same prompt:/imagine, https://s.mj.run/-HJDYcCeIP8, Winnipeg, superimpose a public garden within the parking lot.

Figure 4.27 Attempt 2.2

An initial observation suggests that the first variation looks more similar to the source image. All four images are possible in terms of street and path measurements. The presence of mid-size spatial pockets, which are not too small or too big, is significant as it indicates a balanced spatial distribution. The prompt did not explicitly ask for such measurements, and the engine may have specified such measures from the source, from the average distance between parallel lines and their correlations with object heights. Since the parked cars in the images look more like SUVs than sedans, it is feasible to assume that the engine might have access to alternative sources related to Winnipeg. In other words, the engine utilized SUVs or asphalt colours reflecting the summer sunlight as a necessary connotation to communicate Winnipeg as a context. These findings were also valid for trials in other cities and different IPs/computers. The purpose was to reduce the possibility that the engine became calibrated or trained through trials.

Attempt 2:3 This experiment aims to investigate how inputs indicative of geometric spatial order and Winnipeg-specific connotations can potentially enhance designers' control over a given context in the Midjourney engine. By introducing two explicit measures, one quantifiable and the other unquantifiable, to the inquired prompts, this experiment challenges the engine for a shift in design control.

2:3:1 The quantifiable prompt: /imagine, https://s.mj.run/-HJDYcCeIP8, add pond to the 38 by 155-meter rectangle in the image, add a circle-shape pond that is tangentially touching the 38 meters, add trees to the rectangle, create a 1.5-meter pedestrian space around the rectangle, add another layer of trees to the both side of the streets, use birch and willow trees, Winnipeg.

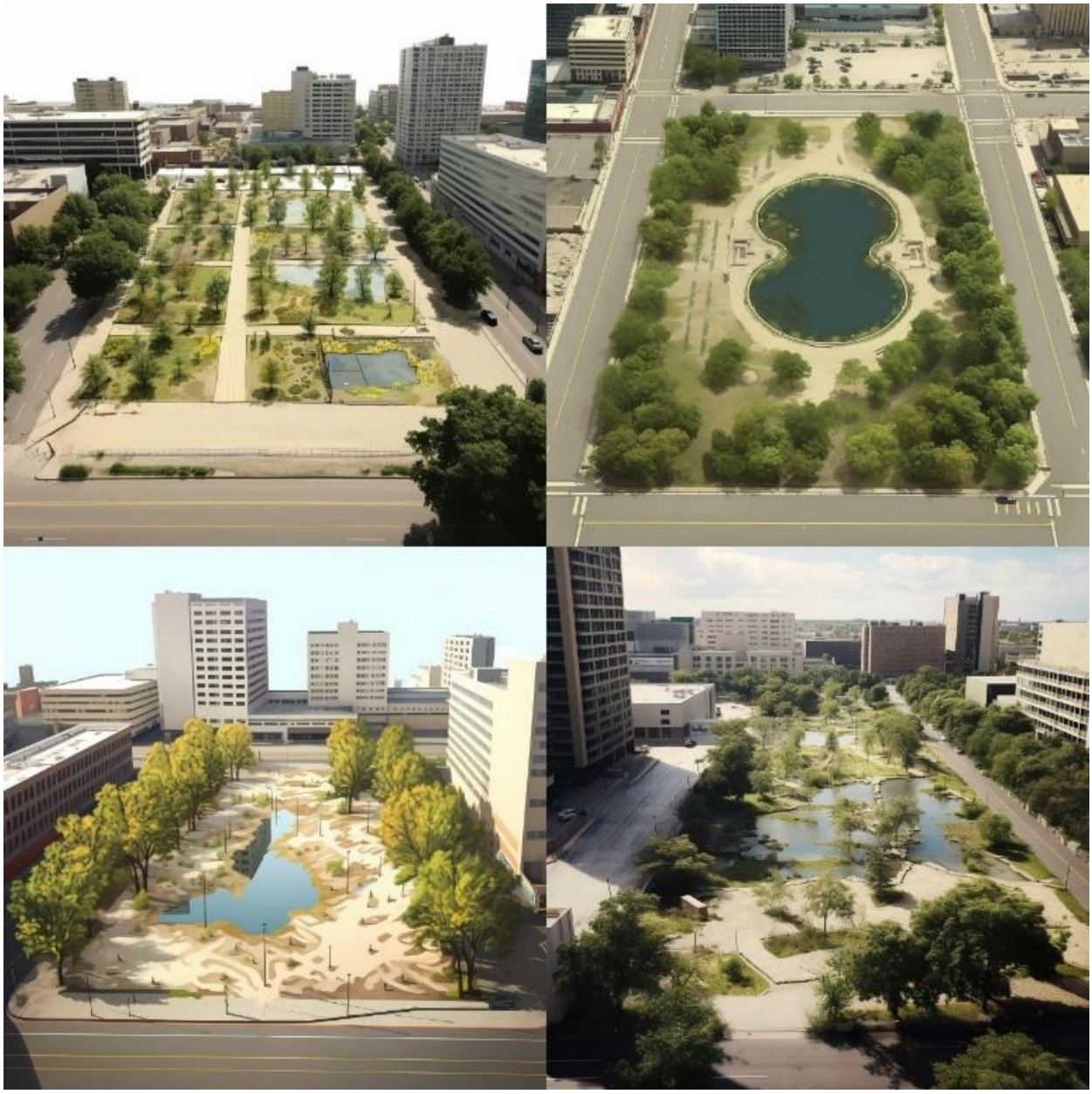

Figure 4.28 Attempt 2:3:1 – iteration one

Because the engine did not fully meet the demanded criteria, a simplified prompt can further narrow and assess its ability to enhance the accuracy of visuals.

The first revised prompt focuses on a 'pond' as a *spatial-temporal connotation*: /imagine, https://s.mj.run/-HJDYcCeIP8, add pond, to the 38 by 155-meter rectangle, in the image, garden, Winnipeg.

Figure 4.29 Attempt 2:3:1 – iteration two

The second revised prompt focuses on ‘circle-shaped pond’ as a *spatial-temporal order*: /imagine, https://s.mj.run/-HJDYcCeIP8, add a circle-shaped pond to the 38 by 155-meter rectangle in the image, garden, Winnipeg. The influence of ‘pond’ and ‘circle pond’ is evident in the generated images. Surprisingly, one can see two tangentially positioned, circle-shaped ponds here, which was not requested from the engine.

Figure 4.30 Attempt 2:3:1 – iteration three

The upscaled version of the last variation (Fig 4.30 – with the tangential ponds) was uploaded to the engine to examine whether it can use a relatively correct image variation as a source to respond accurately to the initial prompt, the one with 'add a circle shape pond that is tangentially touching the 38 meters, add trees to the rectangle, create a 1.5 meter pedestrian space around the rectangle, add another layer of trees to both side of the streets, use birch and willow trees.' The new prompt: /imagine, [the URL for iteration 4 in Figure 4.30] https://s.mj.run/Ba-dBT2ZWb0, add street traffic, pedestrian space that is 150 cm wide

surrounding the garden. As seen in Figure 4.31, the ‘wrong results’ reveal that the ‘correctness’ of the new source image, the iteration with tangential ponds in Figure 4.30, was a random answer and not influenced or trained by previous prompts.

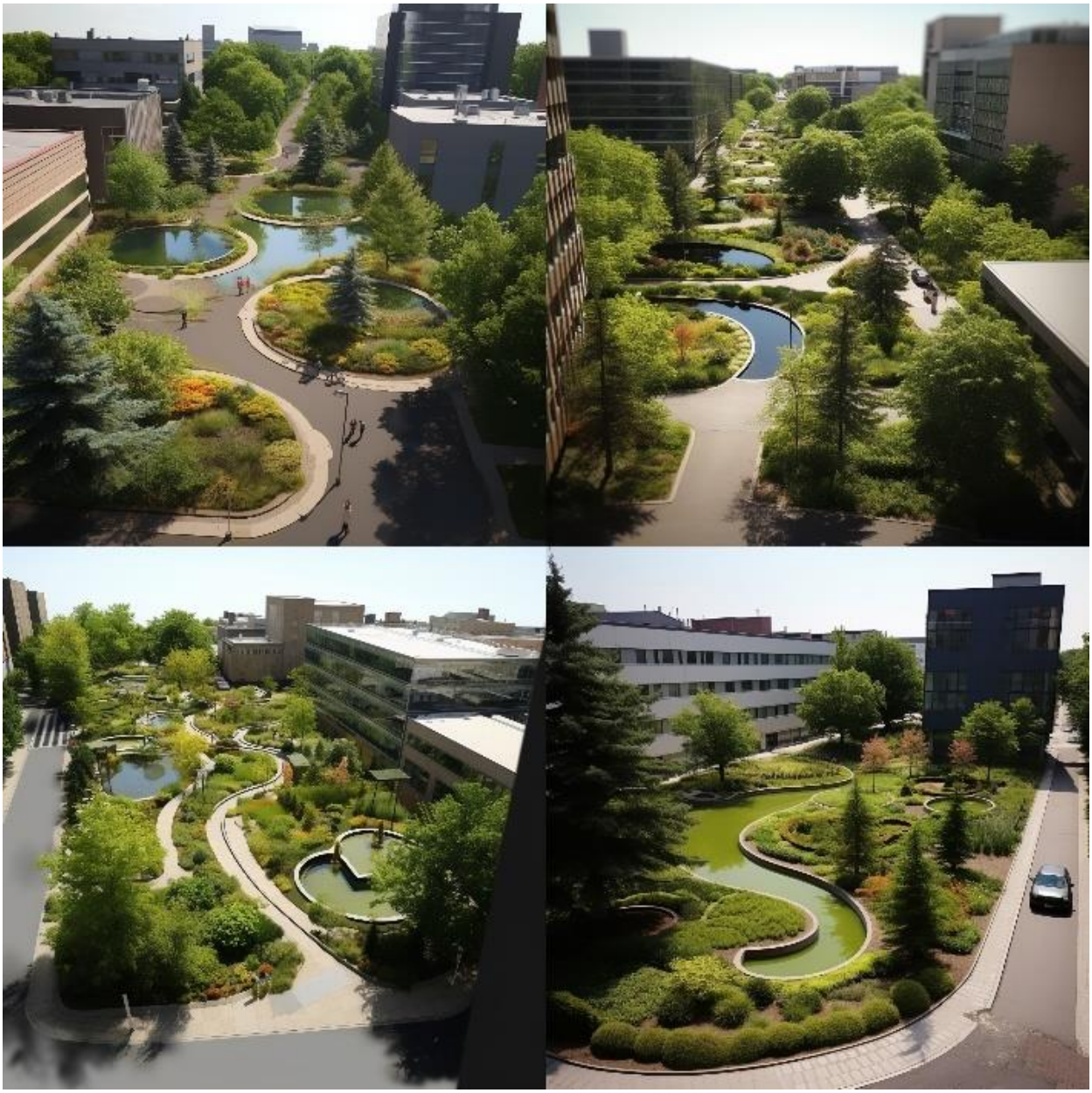

Figure 4.31 Attempt 2:3:1 – engine failed to ground secondary (designed) context

2:3:2 The unquantifiable prompt: /imagine, [the URL for the image below – Figure 4.32] https://cdn.discordapp.com/attachments/1140305348645879869/1155829024581484605/try2.jpg, superimpose a huge tree on the red dot. This experiment introduced an unquantifiable explicit measure into a familiar context. As seen in Figure 4.33, it became clear that the engine could not recognize explicit content. The engine does not currently operate on spatial parameters, such as calculating the surface area of a rectangle or locating a red dot within a perspectival surface. This experiment demonstrates that the engine views the uploaded content as a flat image, not a three-dimensional network of different spatial measures (such as in Augmented Reality). Additionally, different trials with the 'editing' commands within the engine showed that the edit function acts similarly to Photoshop, where the user selects an area and adds a tree.[12] The following explanation provides the intention behind this experiment, which is to shed light on the current capabilities and limitations of the engine.

Figure 4.32 Attempt 2.3.2 – part one

[12] Midjourney's editing commands include 'vary (subtle),' 'vary (strong),' 'vary (creative),' and 'vary (region),' with the latter offering the user a new prompt box to edit a selected area, like in Photoshop. The updated editing and retexturing tool in Midjourney 6.1 (Fall 2024) was also unable to detect the red dot.

Figure 4.33 Attempt 2:3:2 – part two

Communicating Cartesian and non-Cartesian ideas of spatial order will be crucial to future AI design media. Referring to Figure 4.34, the first image on the right reflects a simple plan traced from a Google Earth map of The Forks in Winnipeg. The thicker lines on the second image, repeating on the third and the fourth, reflect the primary structure of this site, exposing the fork shape of the Assiniboine and Red rivers, vehicle routes, bridges, and riverwalks. The finer lines on the third drawing reflect where taking design sections would demonstrate how the edge operates as lookouts, edges, and topography. The dots reflect a beginning or an end, perceived from the entry or exit of routes and bridges, and communicate where the view is located, introduced, or blocked by an element, a tree, furniture, and topography. The final drawing reflects the combination, where the thick lines, finer lines, routes, key sections, essential nodes, and duration-intensive curved territory accumulate or juxtapose to create a sense of a unified place. Figure 4.35 is a sketch that aims to represent a segment of the riverwalk within the site. It would be beneficial if future Midjourney updates were to ground the human designers' sense of explicit contexts, as it enhances their capabilities to communicate implicit and explicit ideas of order.

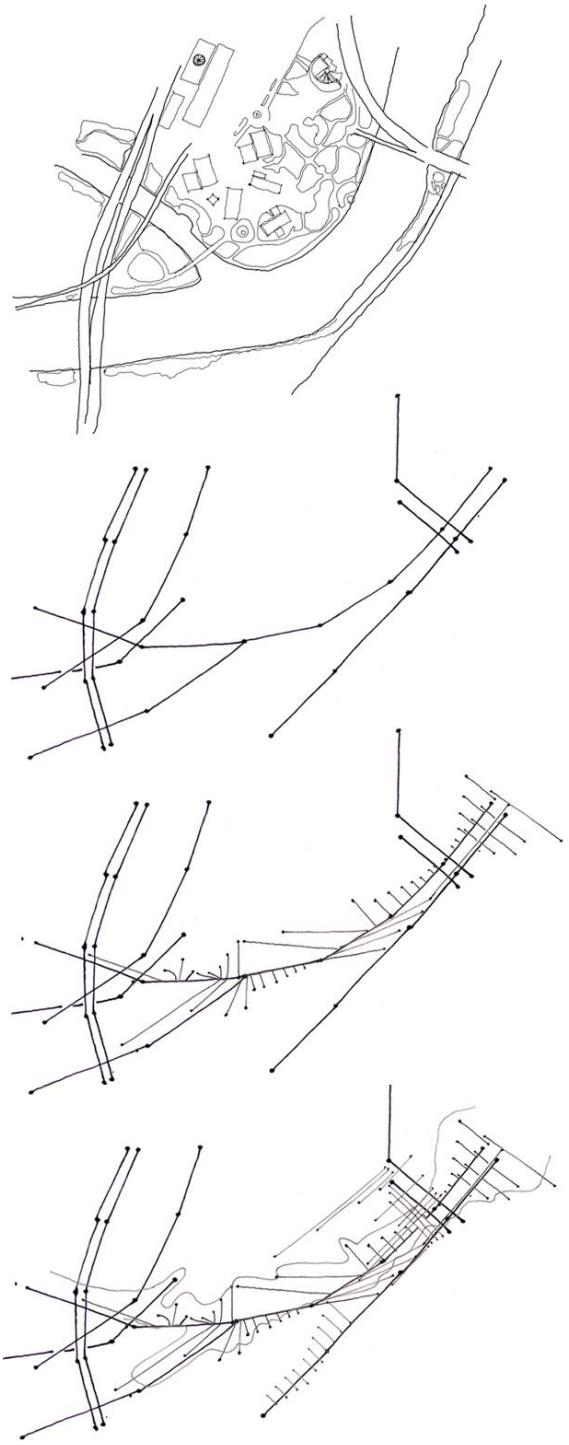

Figure 4.34 Attempt 3.2.2 – part three: line drawings of The Forks

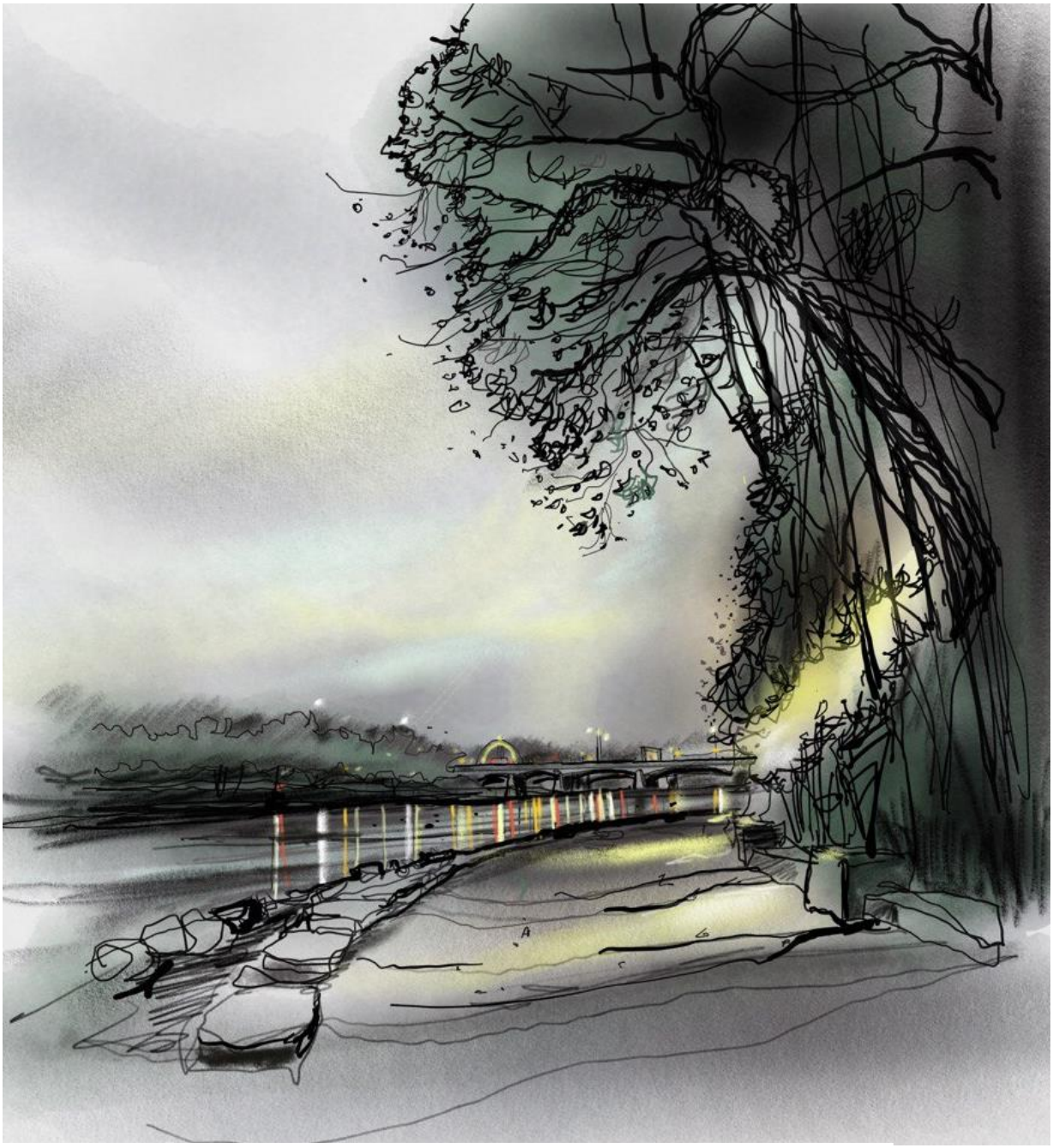

Figure 4.35 Attempt 3:2:2 – part four: sketched segment of the riverwalk by the author

In the winter of 2025, Midjourney had not yet incorporated any regional parameters. However, the future of landscape design media through AI engines hinges on the ability to reflect designers' views of the context in different scales before communicating any other spatial quality. The absence of regional parameters in Midjourney is a significant issue, as shown below. The following iterations (Fig 4.36) are the engine's response when using the analogue plan drawing as a URL input: /imagine, https://s.mj.run/XP8oCSQGKSI, The Forks, Winnipeg, add trees to the nodes, replace the thick line with different kinds of roads.

Figure 4.36 Attempt 2:3:2 – evidence of failure and a lead for the future AI media

Attempt 2:4 In this experiment, the prompt 'Red Dress Day' —an Indigenous and colonial historical narrative familiar to residents of Winnipeg — is used as a site-specific connotation and eidetic measure.[13] This prompt aims to determine if the engine can generate, spatialize, or propose/design a spatial order to a specific societal subject matter. The prompt: /imagine, [the parking lot] https://s.mj.run/-HJDYcCeIP8, Red Dress Day, Winnipeg, create a garden in memory of the missing and murdered Indigenous woman, add people walking.

Figure 4.37 Attempt 2:4

Referring to the confirmation tests on the next page, the two simplified prompts*:* /imagine, [the parking lot] https://s.mj.run/-HJDYcCeIP8, a garden for Red Dress Day in Winnipeg; and /imagine, [the parking lot] https://s.mj.run/-HJDYcCeIP8, a garden for Black Dress Day in Winnipeg, highlighted the current limitations in the engine's access to ideas of social significance. These tests underscore the need for further research in this area. The engine's inability to discern the Winnipeg-specific narratives associated with 'red dress' is

[13] "Red Dress Day, also known as the National Day of Awareness for Missing and Murdered Indigenous Women and Girls and Two-Spirit People, is observed on May 5th. The day honours and brings awareness to the thousands of Indigenous women, girls and two-spirit people who have been subject to disproportionate violence in Canada. Red Dress Day was inspired by Métis artist Jaime Black's *REDress Project* installation, in which she hung empty, red dresses to represent the missing and murdered women. Red dresses have become symbolic of the crisis as a result of her installation."
Available at:< https://www.thecanadianencyclopedia.ca/en/article/red-dress-day> (accessed in May 2025).

evident, as the produced images merely reflect the literal use of the ‘red dress’. The produced images look similar and suggest the literal use of the prompts ‘red’ and ‘dress.’

Figure 4.38 Attempt 2:4:1 – confirmation tests

However, as seen in Figures 4.39 and 4.40, several attempts revealed that including various combinations of relevant temporal connotations (red dress, missing, murdered, Indigenous, commemorate) and spatial orders (a garden, Winnipeg) generates random results of some value.

Figure 4.39 Attempt 2:4:2

Figure 4.40 Attempt 2:4:3

Attempt 2:5 Multiple experiments revealed that when prompted with the visual and conceptual connotations of historically significant landscapes, such as an Iranian char-bagh or a Chinese garden, onto a familiar place like a parking lot in Winnipeg, the AI engine superimposes and aligns the char-bagh's or Chinese garden's spatial order and connotations onto the new context. This move encourages designers to imagine a synthesis of cultural connotations and personal eidetic measures within the site. It stimulates

the imagination to explore and enjoy alternative spatial scenarios, resonating with the affordances of collage. This experiment acknowledges the difference between simply placing elements in a space and the more nuanced process of adapting them to suit a particular location's specific characteristics and requirements. This experiment also shows the role of datasets in AI engines and what AI algorithms include or exclude as relevant. The prompt: /imagine, [the parking lot] https://s.mj.run/-HJDYcCeIP8, Iranian garden.

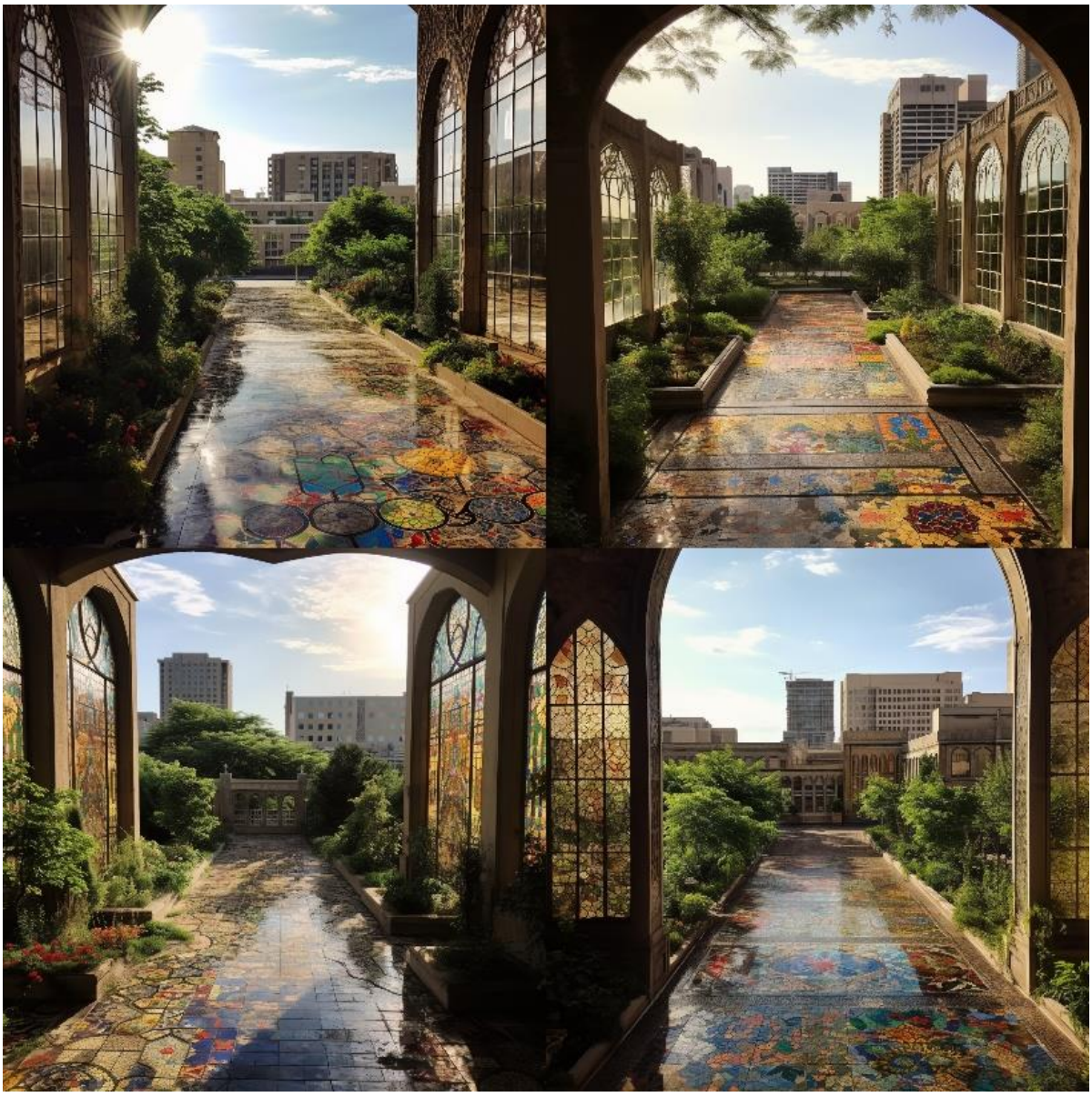

Figure 4.41 Attempt 2:5 – Iranian garden

The prompt: /imagine: [the parking lot] https://s.mj.run/9XCaKGhlS4Q, Chinese garden, huge pond, people, raining.

Figure 4.42 Attempt 2:5 – Chinese garden

Conclusions on Experiment Two — Site is Determined:

The eidetic collage of The Forks (Fig 4.1) inspired intuitive descriptions, which were then organized into spatial and temporal connotations, eidetic discovery measures, and notions of order as perceived in the context of Winnipeg. As shown in Table 4.2, this structured method stimulated alternative interpretation measures, facilitating an extension of eidetic perceptions of The Forks to other sites sharing similar conditions, such as the examined parking lot, within walking distance of The Forks. These two sites share Cartesian and non-Cartesian frameworks for perceiving the City of Winnipeg, enriching the imagination with pluralistic ideas of time, space, place and memory.

Drawn from Corner's writings (1996), the eidetic image inspires 'synoptic' descriptions that summarize place-specific experiences and evoke 'aporia', a sense of tension, puzzlement, and contradiction. Together, they inspire landscape design ideas and experiences that are both imaginative and familiar to Winnipeg's citizens. The eidetic collage of The Forks conveys a subjective synthesis of these experiential aspects of place, prompting questions about Winnipeg's various contextual conditions. The process of shaping and grounding the sense of familiarity in eidetic collages offers insight into the potential of AI-powered text-to-image generation tools in landscape architecture, bridging the gap between landscape imagination and representation.

Midjourney's method of referencing the context, whether The Forks, the parking lot, or the city of Winnipeg, is enigmatic and unclear. It is crucial that prompts inspired by the eidetic collage, further refined and articulated through Corner's method in Table 4.2, are explicit and detailed. These prompts provide pathways to examine Midjourney's capabilities in generating contextually nuanced renderings, highlighting the pivotal role of the designer in providing these prompts.

Experiment Two's findings reveal that the Midjourney engine currently struggles to follow the given input. It generates spatial variations from prompts, often arbitrarily interpreting textual descriptions in ways that alter the input's context. The experiment revealed that the engine modifies the given visual context (e.g., an uploaded image) or introduces unexpected ideas and measures. Users can generate images that resemble the described input and modify the output like Photoshop. However, they do not have control over the specific spatial contents, especially explicit, tangible, and contextual measures and relationships that the eidetic collage references or stimulates.

A significant insight is that, akin to landscape collages, these renderings can stimulate imagination and provoke contemplation about context and its inherent characteristics. However, unlike collages, which

convey situated and intentional concepts of order influenced by social, vernacular, political, or natural ideas, Midjourney prioritizes the temporal aspects of the image. For example, it emphasizes believability and familiarity, conveyed through perspectival depiction and unsolicited yet contextually relevant fragments, over the deliberate prompts that inspire it. Like collages, Midjourney's renderings are charged with emotional qualities. However, while collages reveal intentional context-to-emotion relationships, Midjourney's conception of spatial aesthetics and emotions remains unclear. This disparity hinders the effective communication of how the prompts, as the intended spatial measures, evoke eidetic, memory-engaged interpretations of place.

The engine often miscommunicates the given site-specific measurements and data, failing to follow the geometric and Cartesian measures provided through the prompt box. Additionally, the engine struggles with social and historical prompts like 'Red Dress Day,' reducing them to literal images without significant contextual meaning. The iterative process in Midjourney AI lacks consistency, as one cannot use render X1 as a context for rendering X2 due to changes in accepted conditions. Moreover, the engine often suggests conventionally attractive spaces, enhancing visual appeal rather than stimulating essential ideas. Unless explicitly prompted, it does not add user reactions or daily habits. It does not inherently understand everyday contexts, such as traffic or wildlife (in Winnipeg), requiring specific instructions to include these elements.

While the scope of the experiment was limited to one individual and a single eidetic collage of a specific context, it provided significant insights to how Midjourney generates contextually nuanced images. Midjourney AI, as a non-discipline-specific image-generation engine, can produce provocative images about space, place, and landscape subjects. However, it cannot entirely follow a designer's instructions as prompts. Moreover, as the experiments show, the engine requires constant information and input rather than independently generating critical ideas. The machine produces imagined impossibilities rather than unimagined possibilities. Regarding eidetic landscape spatial measures and interpretation criteria informed by place-specific imaginations and memories, Midjourney is predictable in its content but unpredictable in grounding contextual ideas. However, it could and possibly will evolve with emerging technologies.

4.7 Conclusion

The chapter emphasizes that Midjourney functions similarly to the collage medium, as both methods result in composite images. However, landscape designers have greater control, influence and

intentionality over collage juxtapositions and their intended meanings than the Midjourney engine, which operates on predefined spatial measures grounded in datasets and algorithms. This discrepancy underscores the importance of informed spatial and temporal ideas and memory-engaged, eidetic interpretation measures integral to designing landscape architectural projects, which define spatial order or ways of conceiving and dwelling in space. Designing landscape projects entails reimagining a site context's including natural, social, historical, and cultural significance into spatial designs and temporal experiences. Landscape architectural representations compose these complex and interconnected spatial, temporal, and interpretational factors to evoke rich experiences and ideas for the body and mind. With the application of Midjourney and other AI-enhanced text-to-image generation tools in landscape architectural design, understanding how to articulate and describe these factors becomes critical. As these engines become more integrated into the discipline, shifting conventional representation methods in landscape architecture, designers will increasingly need to assess how these interconnected spatial and temporal factors relate to the site context, focusing on their influence on the lived experience.

While the Midjourney engine may operate swiftly in generating images based on spatial descriptions, it risks flattening the evolutionary interpretation and representation measures inherent in conventional design processes — survey, analysis, and design. This disruption is mainly caused by how Midjourney represents the context of inquiry through momentary finalized images, limited image choices per prompt, and the interpretation priorities embedded in these renderings. Although these renderings can resemble a collage, an abstract image that evokes ideas of context and subject (that can serve as a basis for further spatial investigations), the experiments revealed that Midjourney lacks the *temporal* and *contextual* grounding that characterizes ideational accuracy and the intentionality necessary in eidetic collage-making. The misrepresentation of context in Midjourney directly influences how one imagines, synthesizes and interprets site-specific information.

A structured approach to describing context spatially and temporally can serve as a basis for evaluating both the designer's prompts and the AI-generated renderings. This approach can reveal the engine's limitations and highlight its potential to challenge and extend the designer's understanding of site-specific conditions, contributing to the design process.

The eight interconnected criteria to initiate a spatial and temporal dialogue with eidetic collages through interpretations of space, emotions, hints to references, methods of delivery, context or subject, audience, aspirations, and neutrality-priority paradox can help designers generate targeted and contextually nuanced prompts and renderings. However, Corner's method provides a structure to divide these

descriptive prompts into three categories: spatial and temporal connotations, eidetic discovery measures, and notions of order.

Corner's method is significant for investigating how landscape imagination and representation measures, such as those mentioned above, are interdependent, evolve, and influence the lived experience of a site. In essence, his method enables designers to critically reflect on spatial *relationships*, whether represented in a medium such as a temporal map or collage or experienced in an actual site. It encourages creative and dynamic interpretations of site-specific information in landscape architecture. It advances the view that a contextual, eidetic spatial interpretation measure or criterion can significantly influence the imagination and representation of other criteria.

Midjourney can also reflect eidetic criteria, as its renderings evoke a sense of familiarity. In collage-making, these criteria are interconnected and shaped by intuitively informed and bodily-engaged choices. In contrast, Midjourney relies on computational processes grounded in predetermined and inaccessible spatial measures, where the relationships between words and images are numerically 'mapped' within a 'latent space' (see Dondero, 2025, pp. 113-114). A closer examination reveals that Midjourney's renderings of landscape ideas often feel arbitrarily generated, prioritizing what its dataset and model suggest as relevant interpretations of the prompt. This automated process requires constant vigilance and attention. The experiments demonstrated how informed criteria from an eidetic collage can help interpret or generate Midjourney renderings, giving human designers more agency, creativity, and control over spatial ideas and negotiations in AI-enhanced design processes.

This chapter concludes that using the Midjourney engine as a stand-alone platform to generate images from descriptive prompts currently has several limitations. The flexibility of collage to convey broad and interconnected spatial interpretation measures within landscape projects, reflecting how people inhabit, dwell, and generate narratives about their environments, offers an opportunity to envision AI engines tailored to landscape architecture needs.

Eidetic interpretations of space and subjects in landscape architecture can be effectively conveyed through collages, which reveal underlying structures, ideas, and priorities in subjective and contextual thinking, as demonstrated through collage examples explored in the previous chapter (also see the Appendix). Demonstrated in this chapter, a combined approach, with collage leading and revealing human intentionality in making spatial decisions and interpretations, encourages designers to understand sites within the context of technology and eidetic spatial measures that evolve over time. Both collage and

Midjourney disrupt a ‘linear’ process within traditional survey, analysis, and design methods, prompting a beneficially intuitive and iterative approach to the process. This disruption encourages creative thinking, helping designers deepen their understanding of the context and enhance their communication of design sites and interventions. However, while landscape collages evoke multiple familiar and relatable spatial interpretation measures across broad scales and issues, Midjourney’s text-to-image generation engine remains deterministic in its conceptions of space and its associations between textual descriptions and visual compositions.

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All images were produced by Mojtaba Hassanzadeh. The renderings are produced through Midjourney AI V5.2 in 2023 and 2024.

CONCLUSIONS

Collage has broad applications in the landscape architectural design process. Conventionally, designers use collage as a brainstorming tool and representational method to communicate the complexity behind designing landscape sites. They use collage to demonstrate a wide range of ideas, from subjective thoughts to objective criteria that guide their design visions and decisions. By using collage to communicate subjective and objective design elements, designers create a sense of balance and integration in the design process. More importantly, they enhance the communication of design intentions with the aspiration to foster a sense of connection and understanding among all involved.

Essentially, designers use collage to conduct spatial and temporal dialogues and experiential interactions with a site context, including the *flow* of ideas, processes, and potential reactions they consider contextually relevant and significant to the design process. In Csikszentmihalyi's terms (1990; 1996), this state of flow embodies a mental zone for *creative interaction*, encompassing physical and cognitive tensions between the creator, a domain, and a field of knowledge. The versatility of collage to incorporate a multitude of ideas, such as words, images, charts, and maps enables an opportunity to ground, shape, and communicate these flowing interactions between the designer, the project brief, and the site. It is crucial to note that static spatial representations in landscape architecture, such as maps and plans, cannot adequately convey these interconnected spatial and temporal qualities. This complex characteristic of evoking a flow of both objective and subjective thoughts about space makes investigating collage as a landscape representational medium both relevant and challenging. James Corner's works (1996, 2014) were instrumental in explaining this flow, providing a foundation for bridging the abstraction of collage with the ostensible clarity and objectivity embedded in static landscape architectural media, including AI-generated image composites of spaces, places, and subjects.

Corner perceives collage as a potent tool for eidetic mapping, a *process* he employed to merge Cartesian spatial measures and atmospheric fragments of place. Eidetic collages can empower designers, giving them the ability to flexibly layer, explore, and communicate various essential site-specific factors across the survey, analysis, and design stages (Corner, 2014, pp. 198-258; Corner and MacLean, 1996).

Designers can use collage as a mapping tool and ideogram, juxtaposing fragments of images, planimetric views, words, and analytical symbols and charts to communicate ongoing thought processes. Alternatively, they can use collage to emphasize a specific atmospheric feeling, capturing a site's unique qualities. The versatility of collage as a medium for clients and laypeople is a key aspect, as it facilitates more explicit

expressions of design intentions and priorities, making them feel more engaged, recognized, and included in the design process. This accessibility enables designers to address how clients' understanding of a project brief, particularly their perceptions of the design site's potentials and limitations, influence subsequent spatial negotiations, design decisions, and ultimately, the site.

The thesis argues that landscape designers recognize the value of collage for its unique ability to convey the *duration* of ideas and experiences. It is contended that landscape collages, including digital photomontages, capture the indivisible and evolving spatial and temporal qualities of spaces and places rooted in bodily perceptions of time. As a result, landscape collages are rich in duration-intensive fragments and qualities, making them an indispensable tool in landscape design. Duration-fragments, or 'affect images', as in Bergson (1889; 1896), embody a continuous and indivisible flow of spatial and temporal perceptions, shaped by memory, movement, and lived experience.

It is further argued that representing *site-specific* spatial durations through collage stimulates the imagination. It provokes subjective ideas that influence the human body and mind, a key factor in shaping one's perception of a design within its immediate context. The experience of duration is multisensory and tied to memory, integrating contextual, mental, and bodily perceptions of spaces and places into a singular, *abstract*, yet evolving idea. This flowing characteristic, continuously shaping perception, is challenging to convey through a single 2D and 3D medium such as maps and renderings. These traditional media are rooted in a geometrical representation of space, where a Cartesian understanding of space and time reduces spatial imagination to a measurable entity or model, deterministically shaping the perception of design sites and subjects and ultimately influencing their depiction in design documents.

This thesis seeks to position eidetic collages as critical components of landscape architectural ideation and representation. These collages foster duration-intensive and situated interpretations of context and project briefs, and the thesis aims to demonstrate their unique role in enhancing creativity in landscape architectural ideation and representation. The central question it poses is: What criteria can guide the creation and interpretation of abstract collages to foster creativity in landscape design?

A key challenge and opportunity arising from this question is to explore the landscape design process and the role of imagination (the designer) within increasingly technology-driven representations of space and place (the domain), and how these in turn influence the field of knowledge (landscape architecture).

Exploring collage as an ideational tool is particularly significant in AI-enhanced representational media such as Midjourney, Stable Diffusion, and Dall.E. These AI tools, which are capable of generating images

from verbal descriptions of spatial ideas, have the potential to transform the landscape architecture design process. The interpretation of collages reveals that spatial imagination and descriptions are influenced by objective and subjective experiences, including emotional reflections rooted in memory (duration) that shape how a site and its context is perceived and represented. However, there is a significant lack of theoretical understanding in integrating these text-to-image generation tools into the conventional landscape architecture design process, comprised of survey, analysis and design. Despite not being explicitly developed for landscape architectural endeavours, the ability of these tools to transform text descriptions into compelling visuals is significant. This capability provides insights into how AI might influence future design processes and highlights the potentially profound impact of technological advancements in the discipline. As representational technologies evolve, our expectations and perceptions of design media shift. Landscape representational tools and techniques are pivotal in fostering creative design. Regardless of technological developments, landscape survey, analysis, and design remain fundamental, shaping how designers imagine, interpret, and represent their ideas.

Landscape representational media convey our visions for site designs. The thesis examines this influence by exploring the open-ended and interconnected relationship between landscape imagination and representation. It underscores how a Cartesian, objective approach to spatial representation fosters clarity and certainty in communicating design visions, while a non-Cartesian, subjective approach to interpreting place, including its representations in maps, invites a mental suspension essential to imaginative thoughts. Together, these objective and subjective viewpoints shape a comprehensive vision for the human experience of sites, inspiring subsequent ideas that support this vision throughout the design process. Surveying a site's existing conditions is crucial for imagining and grounding design visions and agendas.

Post-1990s literature in the discipline suggests that understanding of landscape informs our representations of space and, ultimately, the built environment. Through a hermeneutic circle – an iterative process of understanding and interpreting – these representations, in turn, shape how we describe and analytically comprehend human experiences within spaces and places (Corner, 2014; Cureton, 2016; Girot and Imhoff, 2016; Herrington, 2006; 2013; Spirn, 2006; Treib, 1995). This framework is influenced by humanistic approaches to understanding and representing space and its complex role in the built environment's social, political, and environmental fabrics and dynamics. It resonates with McHarg's endeavours toward an analytical comprehension of space and a pragmatic approach to regional planning in his seminal book *Design with Nature* (1969). Post-1990s literature, emerging from a period of significant development in digital media including Xerox, software and the internet, highlights an interest

in landscape agency: how landscape architecture can inspire more imaginative, temporally rich, and contextually adaptive ways of living. Landscape architecture as a discipline, is uniquely invested in improving such human-nature relationships.

In recent years, landscape representational tools such as CAD, GIS, and 3D software have substantially expanded designers' ability to imagine, depict, and interpret landscapes. While these tools enhance one's analytical understanding of space and support pragmatic design approaches, the exploration of collage presents an opportunity to amplify the human role in shaping spatial and temporal significance in landscape design. This potential of collage to enhance human creativity is especially inspiring amid the technological transition toward AI, transforming conventional representational media grounded in Cartesian principles and informed by software algorithms. The ability to use Midjourney to generate synthetic image composites by superimposing multiple image sources, such as a plan and a photograph, further refined through textual spatial descriptions, offers a glimpse into this evolving integration between human creativity and machine intelligence. This integration results in depictions of familiar and strange landscapes, similar to the collage medium.

Corner's writings (1996; 2014) provide a theoretical foundation for understanding how innovative representations of space, such as eidetic mapping through collage, can foster imaginative interpretations of landscapes and vice versa. His works amplify the designer's role in shaping contextually informed spatial representations and interpretations, influencing the evolution of landscape and its agency. This emphasis on the designer's creative engagement with landscapes expands the hermeneutic processes between design media, people, and site.

Corner's collages and photomontages in *Taking Measures Across the American Landscape* (Corner and MacLean, 1996) exemplify the role of eidetic spatial discovery measures in explaining and expanding the hermeneutic circle in landscape imagination and representation. In this work, searching for eidetic discovery measures entails exploring various ideas visualizing and describing a site's durational qualities — spatial factors uniquely depicting its multisensory and memory-informed experiences. His collages demonstrate this search through intentional juxtapositions of Cartesian and non-Cartesian spatial frameworks, synthesizing and revealing the interconnected perceptual qualities that underpin a landscape's unique natural conditions and spatial orders, perceived through time and human interactions.

Corner's collage application is speculative yet constructive, suggesting that the interpretation and representation of landscapes, including those proposed through design, are extensions of eidetic,

memory-informed imaginations of spaces and places. In other words, they reveal how one employs previous experiences to objectively or subjectively understand the quality of experiences within landscape sites. By inviting readers to *survey* other memory-informed discovery measures, his collages emphasize the dynamic nature of landscape sites and designers evolving perceptions, shaped by multiple interconnected social, historical, political, and environmental factors.

Corner's work in *Taking Measures Across the American Landscape* (1996) is significant as it advocates for the exploration of eidetic discovery measures. This search specifically focuses on duration-intensive spatial dynamics between space, people, designers, and landscapes. His work proposes that one can examine the relationships between site-specific spatial and temporal factors of landscapes, which are qualities communicable through collages, and eidetic discovery measures and synoptic words, which enable their interpretation and description. Importantly, he suggests exploring these dynamics can inform one on various notions and manifestations of social, political, historical, and environmental order as experienced within landscape sites. His eidetic collages are a powerful tool for stimulating and expanding the hermeneutic circle between a site's imagination and representation. They foster a rich ideation zone and a flow state in which viewers/readers actively search for other eidetic discovery measures and relationships.

Corner's tripartite framework, consisting of spatial and temporal collage fragments and juxtapositions, eidetic discovery measures, and notions of order, encourages interpreting space as a dynamic entity and landscape as a rich medium. It accumulates multiple traces and layers of anthropocentric constructs and natural processes over time, thereby shaping an understanding and representation of landscapes. This evolving understanding, driven by Corner's framework, enlightens and informs others about the complex nature of landscapes. Eidetic collages visualize this evolving thinking in the design process, encouraging designers to engage with a site's complexity beyond that which traditional maps and renderings can convey. Corner's framework facilitates critically-grounded visual and verbal explorations of landscape sites and their representations, which is significant for two reasons.

First, it stimulates and foregrounds synoptic thinking through eidetic discovery measures, empowering designers to describe verbally, survey *and* analyze, summarizing the spatial duration or the quality of experience in a temporal context of a site. This process synthesizes objective, subjective, spatial, and temporal experiences of the present with perceptual tensions rooted in memory. It intensifies the role of the designer in shaping human imagination of landscapes and the experiences proposed in conventional design documents, such as maps, plans, and renderings.

Secondly, considering the emergence of AI-enhanced text-to-image generation tools such as Midjourney – which require explicit verbal articulation of what the operator seeks to generate as a spatial rendering or vision – the role of human intentionality in shaping the human imagination of landscapes is more critical than ever. By amplifying the role of the designer in how a space and context are perceived, eidetic collages can serve as a significant bridge between human intentionality and AI-generated representations. This emphasis on human intentionality reinforces the designers' position in landscape architecture, particularly within AI-enhanced design processes.

As with eidetic collages, AI renderings can be a decisive ideation stage tool. They evoke spatial, temporal, and contextual ideas, inspiring creative interpretations of spaces, subjects, and contexts. Both eidetic collages and Midjourney renderings are imbued with memory-related emotional dimensions. However, Midjourney renderings can potentially suggest arbitrary relationships between these spatial and temporal factors. This potential can significantly alter the perception of spatial context, influencing how one perceives and envisions the landscape. The role of AI in this alteration is significant. Whether it is a spatial criterion from the site or a temporal factor rooted in the memory of the place/context, understanding what is communicated as a priority in perception is critical for their interpretation.

Establishing the connection between a landscape's temporal qualities and its physical conditions is a complex task. The evolution of landscape sites and their perceptions is intricately shaped by the dynamic interplay between humans and nature, a relationship informed by memory, culture, history, and various social and political factors. Whether at the scale of a small garden, a park, or an extensive regional intervention, landscape projects introduce a multi-sensorial dimension to our experience of time and space. These richly intertwined and interconnected spatial and temporal qualities can only be fully understood through physical interaction with the site over time.

However, these relationships can also be studied through representational documents that manifest spatial order and offer a glimpse into what designers momentarily prioritize. Whether as a singular measure or as a network of measures, these documents serve as a depiction of the existing or envisioned experiences. Eidetic collages of landscapes have the flexibility to both magnify and challenge such intentional or unintentional prioritizations, thereby revealing the crucial role of designers in making informed choices within other representational media, such as maps, plans, and AI renderings.

Collage Interpretation Methods

Like many other designers, Corner (1996) uses collage to provoke bodily-engaged inquiries about landscape sites and elements. His collages stand out for their unique fusion of maps, charts, and visual fragments of specific locations, creating a temporally rich dialogue. This dialogue underscores the pivotal role of imagination in shaping spatial questions, an engaging and intriguing process that establishes alternative measures for understanding landscapes.

Taking Measures Across the American Landscape (1996) introduced the concept of eidetic discovery measures, which refer to a set of measures informed by the body, memory, and history of place to engage with landscape sites. The book unfolds measures of land, control, rule, fit, and faith as examples of eidetic discovery measures. These measures emphasize how spatial imagination influences landscape representation and manifestation, including its synoptic descriptions within different contexts. They ground and shape durational qualities unique to landscape sites, highlighting the role of designers in depicting the landscape as a complex synthesis of memories and experiences formed by social, political, historical, and environmental ideas of order. This complexity can only be conveyed through an *imaginative integration* of Cartesian and non-Cartesian approaches to space. The increasing influence of technology in shaping spatial measures, such as the use of Geographic Information Systems (GIS) and digital mapping tools, is significant. These tools provide new ways to measure and represent space and influence our perception and understanding of the landscape.

Through *multiple* collages, Corner's depiction of the American landscape expands the hermeneutical relationship between the designer, site, people and media. These eidetic depictions, whether seen as an ideogram, an atmospheric scene, or a cognitive map, underscore the subliminal role of time and technology in *fusing* our imagination, representation, and interpretation of the landscape. This fusion, critical to understanding, enables us to see eidetic discovery measures as a vehicle to evoke and bridge other perceptions with different media.

Time and technology influence all people, not just landscape designers, making it critical to keep the search for eidetic discovery measures open to interpretation and representation. This open-minded approach empowers designers to explore new ideas and interpretations in landscape architecture.

Corner's writings and collages (1996, 2014) address this open-ended search by targeting a specific audience, such as landscape designers, whose skills, knowledge, and background influence lived experiences through design. His 1996 work is significant for conveying the designer's role in shaping

human and ethical measures of understanding the landscape. He warns that technology-driven spatial measures, which often distance bodily perceptions from site experiences, can lead to unethical measures or what he terms 'dis-measures'. These 'dis-measures' refer to distorted or misleading representations of the landscape that can contribute to ideas such as resource extraction and exploitation. For example, a GIS map that only shows the economic potential of a landscape, ignoring its ecological value, can be considered a 'dis-measure'. Such a map distorts the true nature of the landscape, leading to potential exploitation. Corner suggests that landscape architectural media can serve as a bridge between the body and the site, between the memory of place and the imagination of space. Hence, like any other representational document concerning the built environment, landscape collages can convey notions of social, political, and environmental order by expanding and including, narrowing or excluding, prioritizing, suggesting and implying, or explicitly or implicitly addressing spatial, temporal, and ethical measures for understanding landscapes. These abstract yet visually rich compilations of ideas delineate the designer's thought processes and contain both immediately visible and invisible temporal qualities that influence perception.

A philosophical investigation centred on human imagination and perception could broaden the scope of collage analysis and eidetic discovery measures in landscape architecture. Chapter Two examined the role of imagination, phenomenology, and hermeneutics, including our perception of space and time through duration, in engaging with the designer's thought processes. Applied to Corner's collages, understood as temporal maps, and compared with Picasso's *Guernica* (1937), a fragmented atmospheric representation of a historical event, this approach revealed that one can ask a broader range of questions addressing how spatial durations, eidetic interpretation measures, and unified qualities of spaces, places, and subjects, are imagined and represented in a medium. These questions can evoke eidetic, memory-involved pathways to engage with how the designer/creator of the media conceives space and expresses spatial and temporal ideas. These questions are tangible to the body, primarily evoking the immediate spatial experience and highlight emotions suggested, lived, or prioritized within a representation. Analyzing collages can include asking questions about space, emotions, hints to references, subject or context, methods of delivery, aspirations, audience, and neutrality-priority paradox.

These criteria are theoretical constructs and valuable tools for investigating site complexities, including spatial, temporal, and ethical relationships and orders within a landscape site. They can help designers explore and articulate these correlations in representational media. The eight criteria can also inspire questions for a site survey, with the answers informing both the analysis and design stages. They convey

durational qualities of spaces and places, which are experiential and memory-informed aspects of perception that are challenging to communicate through conventional representation methods such as maps and renderings.

Collages and Cartesian design media can be perceived as hermeneutically rich documents and significant for landscape design, as they can convey most of the criteria mentioned here. Cartesian maps simplify and reduce these relationships to aim for objectivity, clarity, and certainty in spatial communication, a process that can disguise or underplay the agency of space and how a spatial design is perceived and experienced on a site. On the other hand, collages evoke interpretation pathways such as those mentioned above, a process that may constantly challenge this certainty and objectivity, making it difficult to make a final design decision. Despite their differences, collage and Cartesian design media offer complementary strengths that can contribute to a more layered and comprehensive understanding of place.

As examined in Chapter Three through various collage examples, the first two criteria, *space* and *emotions*, are intertwined, playing a primary role in shaping the perception of subsequent criteria. For example, Picasso's *Guernica* (1937) conveys notions of fear through shattered fragments of a room and public space, while the Situationist International (SI) expressed resistance against capitalism by deliberately distorting the conventional map of Paris in their *Naked City* collage (1957), challenging the state's implied notions of social and spatial order. These works, along with those by Superstudio and Archigram, amplify the role of the individual in deciding what these intentional space-to-emotion relationships mean and how they can inspire further thinking.

Corner's (2014) focus on the open-ended and interconnected relationship between landscape imagination and representation is significant. *Taking Measures Across the American Landscape* (Corner and MacLean, 1996) inspires questions about how designers prioritize various eidetic, intuitive, and memory-engaged spatial and temporal measures to convey existing or envisioned notions of order in landscape representational media. His thinking provides a structure for examining landscape-to-emotion relationships — how subjective interpretations of landscapes can be seen as critical components, delineating what is prioritized in a design document and how this prioritization influences the site over time.

AI-Powered Text-to-Image Representation Tools in Landscape Architecture

As AI continues to evolve, it will undoubtedly influence the imagination and how landscapes are designed, their representations in media, and their physical and temporal on-site manifestations. This technological shift may influence decision-making in the design process, reshaping how human intuition and memory inform ways of dwelling within different spaces and places.

This thesis focuses on the use of collage as a research method to reveal the role of the designer's imagination in understanding and describing spatial visions and design priorities informed by site contexts – a dynamic that requires active engagement with the site and those who occupy it. Understanding how to *describe*, *articulate*, and *evaluate* various design documents that abstractly represent space and place, including those generated by AI-enhanced text-to-image generation tools, is essential and underscores the relevance of this thesis for the future. The study utilized the intentionality and intuition inherent in and amplified through collage-making to investigate Midjourney's text-to-image generation capabilities in addressing site-nuanced complexities in landscape architectural projects. This approach can inspire comparable experiments with similar image generation tools such as Stable Diffusion and Dall.E technologies.

Midjourney's understanding of landscapes and their representational intent remains limited and superficial, downplaying site-specific nuances that shape lived experiences. The experiments revealed that Midjourney conceptualizes space primarily through architectural vocabularies, such as forms, functions, and physical attributes, while evoking Arcadian aesthetics through predefined filters. Though the process starts with spatial descriptions that can be highly informed by the context of inquiry, the renderings revealed a significant gap in translating these duration-intensive, bodily-informed descriptions into site-specific spatial characteristics. These Midjourney renderings often distorted and miscommunicated contextual limitations and potentials. Currently, one cannot alter Midjourney's dataset and model or determine what sources, priorities, or ways of thinking the engine employs.

Despite its limitations, Midjourney could ignite creativity in landscape architecture. It encourages users to articulate their spatial visions and criteria *explicitly*, making it and other AI-enhanced text-to-image generation tools a valuable asset and resource for the survey, analysis, and design stages of the design process. This potential to expand human imagination is a powerful motivator for designers.

Designers can use eidetic collages to explore, uncover, magnify, and describe the 'unforeseen' relationships between objective and subjective discovery measures of landscape sites (Corner, 2014).

These measures, which are essentially the unique and unexpected aspects of a landscape that can be discovered through careful observation and study, can be effectively communicated through Midjourney's renderings. This enhanced intentionality and flexibility in spatial communication can inspire situated prompts and renderings. However, designers must remain cautious of Midjourney's current tendency to generate generic visuals that arbitrarily suggest spaces, places, and temporal qualities without direct input from the designer. This awareness and preparedness are essential for using Midjourney effectively and responsibly, ensuring that designers take the tool's limitations into account.

The eight interpretive criteria for analyzing collage, including ideas of space, emotions, reference, context, method, aspiration, audience, and the priority-neutrality paradox, are significant in inspiring site and subject-specific pathways to generate prompts or investigate the relevance of a rendering to a specific context. These criteria, which serve as a comprehensive framework for understanding and evaluating the *interconnected* elements of a design, underscore the importance of the designer's role in the design process, making them integral to the process and emphasizing their value in landscape architecture.

Drawn from Corner's work, collage interpretations and Midjourney prompts can be divided into those that connote (1) site-specific spatial and temporal factors and (2) those that reflect eidetic discovery measures, speculative and memory informed ideas that enable image interpretations. Regardless of categorising these subjective findings, one needs to ask (3) what spatial order does collage or Midjourney rendering suggest? These relationships can reveal prioritized emotions, whether from memory, context, or experiences.

This intentional recalibration of spatial interpretation measures offers a method to operationalize the text-to-image generation tool Midjourney as a collage, understood as a tool to examine and expand multiple hermeneutical processes between people, sites, designers, and media. These tools transcend traditional representational media and methods in the discipline, intensifying the creative flow between landscape imagination and representation. While collage prolongs, humanizes, and deepens this flow, Midjourney compresses and constrains it, further magnifying the role of the *human* designer in interpreting and expanding the complexity behind spatial durations in its automated process. The 'human designer' refers to the individual's unique perspective, creativity, and interpretive skills critical in the design process. Nevertheless, both these media, seen as ideation tools and methods, remain significant to the discipline, as they can vividly target what is at stake or what constitutes a creative act and decision during different stages of the design process, influencing how spatial order is perceived within a specific site and represented within design documents.

FUTURE INVESTIGATIONS, TRAJECTORIES, AND IMPLICATIONS

It is important to recognize how design media shapes designers' perceptions of space, influencing how they perceive and describe its physical and temporal characteristics. Collage-making enhances this understanding, inspiring the use of AI tools like Midjourney to support creative exploration in landscape architecture.

1. **Collage in Education and Practice:** The thesis advocates for collage-making as a method to intensify creative ideation in the education and practice of landscape architecture. Collage-making enriches and prolongs spatial thinking and requires designers to articulate and outline spatial and temporal findings. This articulation of design characteristics is critical, especially with the growing influence of AI tools in conceptualizing and visualizing design *ideas* for landscape sites. The thesis calls for extensive research into human intentionality and agency in idea generation within landscape architecture. Studies like "Testing the Capability of AI Art Tools for Urban Design" (Philips et al., 2024, p. 37-45) assess the performance of "Dall.E 2, Stable Diffusion, and Midjourney, in urban design imagery based on scene descriptions", incorporating "two independent professional evaluators using an adapted sensibleness and specificity average metric".[1] This *involvement* underscores the crucial role of human agency in deciding and shaping landscape architectural representation and imagination. In this thesis, the medium of collage highlights the role of human intelligence in spatial thinking and narrative creation, and emphasizes the value and significance of this intelligence in landscape architecture, as it conveys complex, duration-intensive descriptions of spaces and places intrinsic to landscape sites and subjects.

2. **AI Tools and Semiotic Relationships:** Semiotics, the study of signs and symbols, is significantly influenced by AI tools like Midjourney. These tools can potentially revolutionize the design process by generating semiotic relationships often unexplored by ordinary users, as they operate on extensive datasets unavailable to designers. Notably, they provide the opportunity to extend

[1] In a paper by Google Research, Brain Team, "Towards a Human-like Open-Domain Chatbot" (2020), Adiwardana et al. proposed the Sensibleness and Specificity Average (SSA) as a "human evaluation metric". Philips et al. (2024, p. 40) assert that SSA was developed to assess "Meena, a conversational AI chatbot and structured the method as a simple and flexible way to evaluate the success of AI in mimicking desired human behavior". In "Testing the capability of AI art tools for urban design" (2024), Philips et al. use SSA to evaluate the engines' ability to produce "realistic and coherent" and 'contextually specific' outputs within architectural and urban design constraints.

human imagination and enhance the design process.[2] As these engines undergo continuous upgrades, their ability to associate text with spatial and temporal characteristics evolves, often granting operators greater freedom to refine or expand these relationships. The evolution of AI text-to-image generation engines promises to transform the design process and open up further possibilities for designers.

Studies like "Semiotics of Artificial Intelligence: Enunciative Praxis in Image Analysis and Generation" (Dondero, 2025) emphasize the role of different AI visualization tools, such as Midjourney, Stable Diffusion, and Dall.E, in *constructing* semiotic relationships that shape future image generations. Though not directly addressing AI, "The Semiotics of Landscape Design Communication: Towards a Critical Visual Research Approach in Landscape Architecture" (Raaphorst et al., 2017, pp. 120-133), highlights the need for critical research on meaning-making in landscape architecture media and its "socio-political implications". This study explores how concepts such as 'visual semiotics, iconography, simulacra and simulation, and power/knowledge' can be applied to examine landscape representation media critically, highlighting the timely importance of this research in landscape architecture.

Similarly, "Semiotics of the Black Box: On the Rhetorics of Algorithmic Images" (Leone, 2024, p. 446, 426-451) explores "the interplay between algorithmic processes and their cultural implications, revealing the multifaceted nature of algorithms as both technical constructs and rhetorical entities". This paper highlights how AI-generated images create a sense of mystery around their creation process, disguising "how these images serve as sites of negotiation between human and computational intelligence, reflecting and shaping social norms and values" (Leone, 2024, p. 446).

Midjourney produces a wide range of images across various subjects, representational styles, and quality levels, ranging from abstract collages and watercolour-style illustrations to hyperrealistic perspectival depictions of speculative concepts. When spatial ideas, including those referencing a specific space or place, are used as prompt inputs, Midjourney's renderings tend to repeat and reinforce familiar yet non-contextualized visual patterns, subtly influencing perception in ways

[2] This observation is evident in Midjourney's V6.1 update (October 2024), which introduces a browser-based editing and retexturing tool. This tool allows users to ask the engine to suggest prompts or describe a scene, revealing how it includes, excludes, or interprets spatial qualities within a rendering. Users can modify the suggested prompts to develop new images and generate multiple 'zoomed out' iterations of previously accepted renderings. These dynamics continue to evolve with new updates, further blurring the boundary between human and machine input.

users may not consciously notice. This insight suggests, whether traditionally created or AI-generated, visual representations privilege specific landscape aesthetics, marginalize alternative design ideas, or reinforce various socio-political power structures in landscape architecture, as discussed in Raaphorst et al. (2017, pp. 120-133). For instance, an AI tool might unintentionally favour certain design styles or cultural references. This realization highlights the need for a critical approach to using AI tools in landscape architecture, focusing on understanding and mitigating potential biases.

Collage-making intensifies the search for more contextual semiotic relationships through synoptic words and eidetic images – relating words to site-specific images. Eidetic memory is the ability to recall images, sounds, or objects in memory with high precision without using mnemonics. In this thesis context, using eidetic memory in collage-making, inspires situated perceptions to guide image generation in Midjourney. This unique potential of collage-making, coupled with eidetic memory, calls for further research into the semiotic associations between words, images, and spatial qualities in landscape architecture.

3. **Philosophy**: Transforming abstract, descriptive, and lesser-known landscape ideas into visual forms through collage-making takes time and requires several iterations. This process significantly influences cognitive processes by defining structures and hierarchies in thinking, enabling findings to be related to the context of inquiry. As seen with Midjourney, this artificial visualization process simultaneously accelerates and narrows gradual thinking. Broadly, the impact of various AI tools and bots, software designed for specific tasks, on landscape communication and representation will shift how we approach learning about landscape architectural projects and their significance in human life. This shift in seeing and doing includes our narratives and procedures for justifying future automated problem-solving methods. AI technologies will significantly influence gradual learning processes and human intuition — how we imagine and think, presenting both challenges and opportunities for the field. This thesis emphasizes the importance of human intelligence, including the philosophies underpinning our understanding of different phenomena, as a foundation for creative thinking. These concerns suggest a reduction in gradual, qualitative, and phenomenological learning methods, favouring instead rapid results. This situation highlights the need for new research, exercises, and educational courses focusing on informed spatial quality generation and its role in human cultural development.

4. **Evolving Intuition:** With the advancement of AI tools, which can homogenize design processes by defining methods and measures, research focusing on the immediate reactions of the human mind to spatially rich experiences, such as in landscape spaces and projects, becomes increasingly important. The proposed method in this thesis highlights the evolving nature of intuition in perceiving landscape spaces and representations and suggests that AI tools can significantly enhance human intuition. By providing new ways to engage with landscape sites and the public, these tools can advance critical methods to harness the potential of AI in the education and practice of landscape architecture, ultimately improving the quality and inclusivity of design decisions.

5. **Evolving Contexts:** Particularly in a multicultural society like Canada, teaching landscape architecture that emphasizes and enhances the agency of landscapes through critical, timely, relevant, and inclusive design approaches is complex and essential. The proposed interpretation criteria investigating ideas of space, emotion, reference, context, method, aspiration, audience, and neutrality-priority paradox offer a practical and direct approach for surveying site-specific spatial discovery measures through collage-making. Corner's tripartite criteria, a search for potential relationships between spatial and temporal connotations in collages, eidetic discovery measures enabling their interpretations, and notions of order created by these visual and temporal dynamics enables an analysis of what spatial measure is prioritized and how this prioritization influences the imagination and representation of landscapes. While providing a method to study the foundational characteristics of landscape architecture, applying these interpretation criteria and analysis methods in different cultural contexts requires further research.

6. **Continuous Engagement:** The approach outlined in this thesis enacts an intensified engagement with landscape spaces and subjects to deepen the understanding of relationships between various factors influencing landscape architectural design approaches and their underlying philosophies and intentions. This method can be integrated into various educational courses as a critical landscape survey and analysis framework, providing a valuable tool for educators and students to navigate the complexity of contemporary landscape architecture. Each element of the proposed interpretation and analysis framework mentioned here can be further explored and applied in different landscape architectural practices to understand the connections between people and the places they inhabit.

7. **Future Vision for Human-machine Integration**: A future research trajectory proposes a diagram to inform an algorithm capable of interpreting landscape site descriptions (texts) and generating imaginative visual images based on Cartesian and non-Cartesian values and measures specified by *landscape architects*. The integration involves leveraging existing Natural Language Processing (NLP) technology to prioritize critical spatial connotations and train Large Language Models (LLMs) to create essential associations between spatial descriptions and the needs of landscape architects. The development of this algorithm would require proficiency in programming languages such as Python, machine learning tools, and access to a wide range of visual datasets. Future research will likely pursue this line of thought, using the collage concept to investigate human reactions, enhance spatial thinking, and include eidetic and site-specific spatial discovery measures as a parameter in training AI models for landscape architectural ideation and representation.

Landscape architecture inherently imbues ideas of nature, notions of time and evolving perceptions of sites and spaces into places where people live. Embracing collage as a creative means to represent how people perceive and respond to space in landscape architectural projects can significantly enrich the conventional survey, analysis, and design process. The central question guiding this thesis is: what criteria can guide the creation and interpretation of abstract landscape collages to enhance creativity in the landscape design process?

This thesis has explored how collages can unfold, generate, and reveal site-specific spatial discovery measures, enhancing the design process by grounding bodily-informed and memory-engaged perception of sites through Cartesian and non-Cartesian measures. The answer lies in the eidetic synthesis of these measures, openly visualizing and articulating various interactions with landscape sites and subjects. Through the proposed criteria, landscape designers can engage eidetically with highly abstract design media, play a more pronounced and creative role in design negotiations leading to spatial interventions, and significantly influence the future direction and human experience of designed sites. The proposed criteria also provide pathways for creating and investigating AI-generated renderings within Midjourney, intensifying the designer's voice in the imagination and representation of landscapes.

Landscape architects, as experts in their field, adeptly navigate complex challenges across scales. They address competing issues and priorities that shape how spaces are perceived, experienced, and acted upon. The discipline of landscape architecture uniquely engages with the subliminal aspects of human

interaction with space, exploring the nature-culture dynamic that underpins human experience. Their role is crucial in shaping the future of design.

In the context of time and evolving human values shaped by technology, landscape architecture plays a crucial role in shaping outdoor spaces that respond to the dynamic interplay between people, nature, and the built environment. As societies develop, relationships with the environment and spatial priorities shift, influenced by cultural, technological, and ecological changes. Landscape architecture thus becomes a medium through which designs address present needs and anticipate people's ways of dwelling. It involves generating creative, adaptable, and resilient ideas that support nature while reflecting the evolving social and cultural values and technologies of the time. By integrating traditional methods with collage and emerging AI-enhanced survey and visualization technologies, landscape architecture can address complex challenges, such as the impacts of climate change, while remaining sensitive to the timeless human experience of space, nature, and place.

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Figure 3.3: Alfred H. Barr, 'Genealogy of Cubism' in Catalog for MoMA, *Cubism and Abstract Art* (1936). Available at:< https://www.flickr.com/photos/dalbera/40385000965/in/album-72157667494900728/> [accessed on June 16th, 2021], distributed by Jean-Pierre Dalbéra, available under Creative Commons Attribution 4.0 International (CC BY 4.0).

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Figure 3.6: André, (2019). *Iteration of the New Babylon* (1970-71) by Constant [Online]. 2005 Gemeentemuseum Den Haag En.W. Available at: <https://www.flickr.com/photos/andrevanbortel/46634183325/in/photostream/ > (accessed: 20 November 2023). [open source]

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Figure 3.9: *Plug-in City* (1964), by Wyliepoon (2019). Museum of Modern Art (MoMA) [Online]. Flickr. Available at: <https://www.flickr.com/photos/wyliepoon/49224543288/in/photostream/> (accessed: 20 November 2023). [open source]

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Appendix 1

Year	Individual, group, or practice	Discipline	Application and Method	Country	Remarks (projects, books, date, URL)
1990	Adrian Geuze (West8)	Landscape architecture	Montage + collage (post-post Avant-garde, 1980s + Palimpsest of colour and cultural symbolism)	The Netherlands	Schouwburgplein perspective collage 1990 (the Theatre Square) (Waldheim and Hansen, 2015, pp. 196-197)
1990	Dieter Kienast	Landscape architecture	Ink+ montage + Xerox (Aesthetic potentials of weathering and seasonal changes)	Switzerland	Moabiter Werder, "Spiel und Sport" 1990; Expo 2000 "Paradise" 1995-96 (Waldheim and Hansen, 2015, pp. 174-177)
1990	Yves Brunier	Landscape architecture/ artist	Drawing + layered collages	France	Museum Park Rotterdam (Waldheim and Hansen, 2015, pp. 158-161)
1991	Richard Weller (Room 4.I.3)	Landscape architecture	Layered planimetric montage (cultural and anthropological references)	Australia	The earthwork (1991), the day/night theatre (1992), the machine Elysium, the living machine (1992); all in Berlin (Waldheim and Hansen, 2015, pp. 184-191)
1994	Hargrave Associates (here, Christopher Grubs)	Landscape architecture	Montage drawing (the experience)	USA	Parc do Tejo e Trancao (Lisbon), promenade, traversing restored wetlands and dendritic landform (Waldheim and Hansen, 2015, pp. 180-183)
1996	Ken Smith	Landscape architecture	Montage with prints (Whimsical Monumental)	USA	Exhibitions (Study for Chandeliers along 5th avenue) (Waldheim and Hansen, 2015, pp. 150-153)
1996	James Corner	Landscape architecture	Eidetic collages /montages	USA	Book of 1996 + Nest, Toolonlahti Park, Helsinki (Waldheim and Hansen, 2015, pp. 162-165)
1997	Teresa Gali-Izard (Arquitectura Argonomia)	Landscape architecture	Collages (study of soil, water, vegetation, …)	Spain	Contecellle Park (1997), and Puig Garden in Barcelona (Waldheim and Hansen, 2015, pp. 192-195)
1998	Mathur + da Cunha	Landscape architecture	Montage+ collage+ drawing (Flux)	USA+ India	*Mississippi Floods* (2001) (Mississippi + Mumbai) (Waldheim and Hansen, 2015, pp. 178-179)
2010	Reed Hilderbrand (Gary Hilder)	Landscape architecture	Photo collage on paper (framing landscape, inside/outside, ..)	USA	Glass house reflection II (Waldheim and Hansen, 2015, pp. 146-149)
2013	Christoph Girot	Landscape architecture	Montage with point cloud	Switzerland	Sudroum, Leipzig (1994) (Waldheim and Hansen, 2015, p. 112)
2013	Valerio Morabito	(Professor of) landscape architecture	Drawing + collage+ photomontage + iPad drawing	Italy	Landscape and Memory (The real and imaginary + abandoning geographical fidelity)

					(Waldheim and Hansen, 2015, pp. 154-157)
2013	Claude Cormier	Landscape architecture	Collage (conceptualist of the 1980s, celebrating the artificial, whimsy and wit)	French-Canadian	Garrison Point with Toronto Skyline over David Hockney's "paper pool 25" (2013) (Waldheim and Hansen, 2015, pp. 198-200)
2017 (1988)	Michael van Valkenburg (MVVA)	Landscape architecture	Photomontage (the potential of natural in urban environment + planting as spatial structuring device)	USA	Minneapolis Sculpture Garden, and the Tuileries in France (Waldheim and Hansen, 2015, pp. 166-173)
2024	George Byrne	Photography	Analog collage (memory)	Los Angeles imagination	https://thephotographicjournal.com/interviews/george-byrne/
2024	Topophyla (Eric Arneson and Nahal Sobhati)	Landscape architecture	AI engines (for ideation, mood boards, and plant pallets)	California based practice	https://land8.com/ai-image-generation-in-landscape-architecture-practice/ + https://www.topophyla.com/projects
2024	Cadence	Landscape Architecture	AI engines (plants+ regional style and materials + dream scenes)	Florida based practice	https://land8.com/ai-image-generation-in-landscape-architecture-practice/ + https://cadence-living.com/
2024	Smith Group	Architecture + Landscape architecture	AI (site specificity) + ChatGPT+ sketch	USA + China practice	https://smithgroup.com/
2024	Wayside Studio	Landscape architecture	AI + collage (relationships + social+ BLM black life matter +makings things hyper visible+ growing audience)	Cambridge based practice + Harvard GSD	https://www.wayside.studio/
2024 (1999)	MVRDV	Architecture + Landscape architecture	AI+ Composite images (Narrative+ funding+ workflow) (digital montage)	Netherlands	https://www.archdaily.com/tag/mvrdv (Sector waste 1999)
2024	Tatiana Bilbao	Architecture + Landscape arch	Collage + sketch (workflow)	Mexico	https://www.archdaily.com/tag/tatiana-bilbao
2024	Fala Atelier	Architecture	Digital collage (resemblance with built object)	Portugal	https://www.archdaily.com/office/fala?ad_name=project-specs&ad_medium=single
2024	KWY	Multiple	Collage composite	Portugal	https://www.k-w-y.org/
2024	Viar Estudio Arquitectura	Architecture	Composite	Spain	https://projects.viarestudio.com/post/116548767483
2024	Office KGDVS	Architecture	Photo composite	Belgium	https://www.officekgdvs.com/
2024	OMXX	Multiple	-	London UK	
2024	DRDH	Architecture	-	London UK	https://www.drdharchitects.co.uk/#