

Drawing Towards a Collaborative Turn

CHENG-CHUN PATRICK HWANG

National Cheng Kung University

PETER FERRETTO

The Chinese University of Hong Kong

Keywords: Co-creative Partners, Inclusive Participation, Drawing.

ABSTRACT

This article summarizes a three-year project, *Drawing Together*, which aimed to address the predominant individualistic approach in architectural education despite architecture's inherently collaborative nature. The project emphasized the potential significance of multiple authorship in drawing, engaging students from diverse programs and academic levels. The project utilized a series of drawing sessions progressing from speedy exercises to lengthy and complex drawing engagements. The project facilitated both teamwork and individual creative development by fostering a collaborative-friendly drawing approach that encouraged shared contributions. Adaptations to the Covid-19 pandemic allowed for in-person and online sessions. *Drawing Towards a Collaborative Turn* questions the purpose of drawing, encouraging students to view it as a multiplicity tool: as a means of communication, critical thinking tool, and social interaction platform rather than merely a talent-based skill. Collaborative exercises redefined drawing as a platform for relational authorship, inspiring improvisation, and contextual adaptability. The project's culmination, "The Massive Individual," showcased the potential for creativity and individual growth within collaborative efforts. *Drawing Together's* relational collaboration approach empowered participants to enhance their skills through shared knowledge and creative autonomy, distinguishing it from transactional collaboration prevalent in architectural practice. By advocating a collaborative mindset, the project offers an alternative model for architectural education, equipping students with technical proficiency and effective teamwork. It provides a novel insight and pedagogical implications for balancing creative individuality with collaborative necessity in future architectural curricula.

I did not write this book alone. I couldn't have. True enough, my fingers wrote or typed its various chapters in various drafts, but I didn't write or type alone. I couldn't have. Nothing is written alone. Writing is folding heterogeneous materials together, egg whites into pancake batter. True enough, it may be your fingers around the wooden spoon, but your fingers are not alone; with them always there is the family recipe and the irreplaceable Sunday breakfasts still alive in your affections. Nothing is written alone. Writing is writing together.¹

—Gordon C. F. Bearn, *Life Drawing A Deleuzean Aesthetics of Existence*

MULTIPLE AUTHORSHIP

Despite architecture being inherently collaborative, interdisciplinary, and team-based, its education has predominantly focused on individual learning. This observation becomes especially evident in drawing, visual studies, and design communications courses. These courses traditionally prioritize acquiring skills that enhance students' skill development and dexterity, emphasizing cultivating their "individual talent and creativity" rather than their ability to collaborate and work effectively with others². In light of this observation, exploring alternative methods that foster a more collaborative approach to teaching these subjects becomes essential. *Drawing Together* explores these observations through a deliberate "collaborative turn," shifting the focus from the singular towards the multiple authorship.

By embracing this collaborative approach, the project seeks to challenge the conventional notions of architectural education and encourage students to develop their skills within an underlying premise of teamwork, cooperation, and collective creativity. It aims to reshape the pedagogical landscape, especially during the foundation stage of a student's education, by reimagining drawing, visual studies, and design communications as subjects that thrive on peer interaction and the synthesis of diverse perspectives, a core aptitude that is inseparable from the future of practice³.



Figure 1. The cave paintings from the Paleolithic depicting wild animals and lines are one of the earliest forms collaborative drawings made by the human species. It is one of our species' earliest known cultural representations, with some dating back more than 40,000 years.

Drawing Together attempts to equip students with technical proficiency and nurture their ability to engage in dynamic collaborations. By encouraging students to work together, share ideas, and co-create, the project creates an environment that fosters the development of valuable “push and pull” between the participants, unlocking the potential for unforeseen and serendipitous outcomes that emerge from the collective effort.

By embracing the concept of multiple authorship and emphasizing collaborative practices, the project aims to bridge the gap between traditional architectural education's individual-centric focus and the architectural profession's collaborative nature. It seeks to prepare students for the realities of working in interdisciplinary teams, where the ability to collaborate and synthesize ideas is as crucial as individual talent and creativity. Through this project, a new paradigm emerges, one that envisions drawing and related subjects as powerful tools for collective expression, problem-solving, and creative co-synthesis.

This elective focuses on the agenda of reclaiming the drawing as an instrument and activity of thought. To draw not as a way of showing but a way of seeing. Therefore the study is less concerned with what the eye sees, — the optical— but rather, for what the mind sees, the visual. Furthermore, the

action of the drawing will gather together the students to partake in a journey of discovery. The origin of collective drawing dates back to the Palaeolithic period and can be found in cave art. It is one of the earliest forms of human civilisation that preceded language. It is also primordial evidence of a collaborative creation process, which serves as a motivation for this research. Although drawing has always been integral to architectural education, in most schools of architecture this intrinsic skill is acquired independently through drawing lessons that are conducted on an individual basis. This elective aims to investigate the synthetic potentials of collective drawing as a platform to draw out the full potential of drawing.

—Cheng-Chun Patrick Hwang, *Drawing Together, Not Together, elective syllabus*

Spanning a duration of three years, the project diligently documented the active participation of diverse groups, encompassing small pairs and expanding to encompass large collectives of twenty individuals or more. Students hailing from various programs and academic levels eagerly engaged in extensive drawing sessions, immersing themselves in the collaborative process. The workshops were designed to follow a structured



Figure 2. The drawing begins with one student sketching the full figure to the right of the page, gestured and rendered in a lighter shade of gray. It is then passed on to another contributor, whose marks are noticeably darker and intentionally interact with the initial drawing, drawings by Hiu Sun LEUNG and Tin Fung MAN.

and progressive trajectory, carefully guiding the participants from research to synthesis, simplicity to complexity, and speed to slowness. This deliberate approach nurtured a drawing style that thrived on collaboration and shared contributions, cultivating an environment where collective effort took precedence⁴. It is worth noting that the timing of the drawing project coincided with the onset and peak of the global Covid-19 pandemic, presenting both challenges and opportunities. In response to the circumstances, the project embraced the zeitgeist and adapted accordingly. The team conducted in-person sessions titled *Drawing Together*, allowing participants to gather and collaborate physically. Simultaneously, we organized online sessions named *Drawing Together, Not Together*, acknowledging the need for remote engagement and the inherent limitations of social distancing measures.

This dual approach facilitated a parallel exploration of collaborative drawing techniques, leveraging both physical and virtual platforms to create meaningful exchanges. The in-person sessions fostered a tangible sense of shared presence, allowing for

immediate interaction and exchanging ideas. On the other hand, the online sessions provided a unique opportunity to transcend physical barriers, enabling participants from different locations to connect, collaborate, and contribute to the project's overarching vision. By embracing both modalities, the project successfully navigated the challenges posed by the pandemic while capitalizing on the advantages presented by each format. The project team effectively adapted their methodologies to accommodate the evolving circumstances, ensuring the continuation of the collaborative drawing journey while remaining sensitive to the prevailing global context. Due to the happenstance of amalgamating in-person and online sessions, the drawing platform expanded its reach, engaging participants from various backgrounds and locations. This inclusive approach facilitated a diverse exchange of perspectives, enriched the collective pool of ideas, and fostered an environment of collaborative exploration and creative synergy.

*No lines are objective: they are always before or after where we look. Lines do not imitate the visible; they make visible.*⁵

—Maurice Merleau-Ponty, *The Visible and the Invisible*

LEARNING TO DRAW WITH OTHERS

Not all learning processes are equal. Between three types of knowledge: declared (knowing what), procedural (knowing how), and tacit. Tacit knowledge is particularly important as it is connected with embodied experience⁶. The workshops started with engaging activities and exercises designed to explore contour, gesture, and tonal drawings. These techniques, widely taught in foundational fine arts classrooms, formed the basis of the participants' learning journey. The introduction of burst modules, ranging from 10 seconds to 5 minutes, aimed to ignite the learners' intuition, cultivate a sense of immediacy in their artistic expressions, and enhance their hand-eye coordination. John Dewey's "learning by doing", has been and continues to be the most effective way of acquiring tacit knowledge for learners. Despite its importance, learners are challenged by the over-reliance on digital technologies in their contemporary curricular activities. The social isolation, lack of tactile engagement, and unequal access associated with the use of technology is not only unsustainable, but also inequitable.

Throughout this immersive process, the participants actively absorbed tacit knowledge, acknowledging that this knowledge cannot be acquired passively but only through active involvement. They realized that hands-on engagement and personal experience can only achieve genuine understanding and growth. Moreover, when depicting observed subject matter, the students were encouraged to let go of the pressure and desire to achieve an exact resemblance. This tendency is often observed

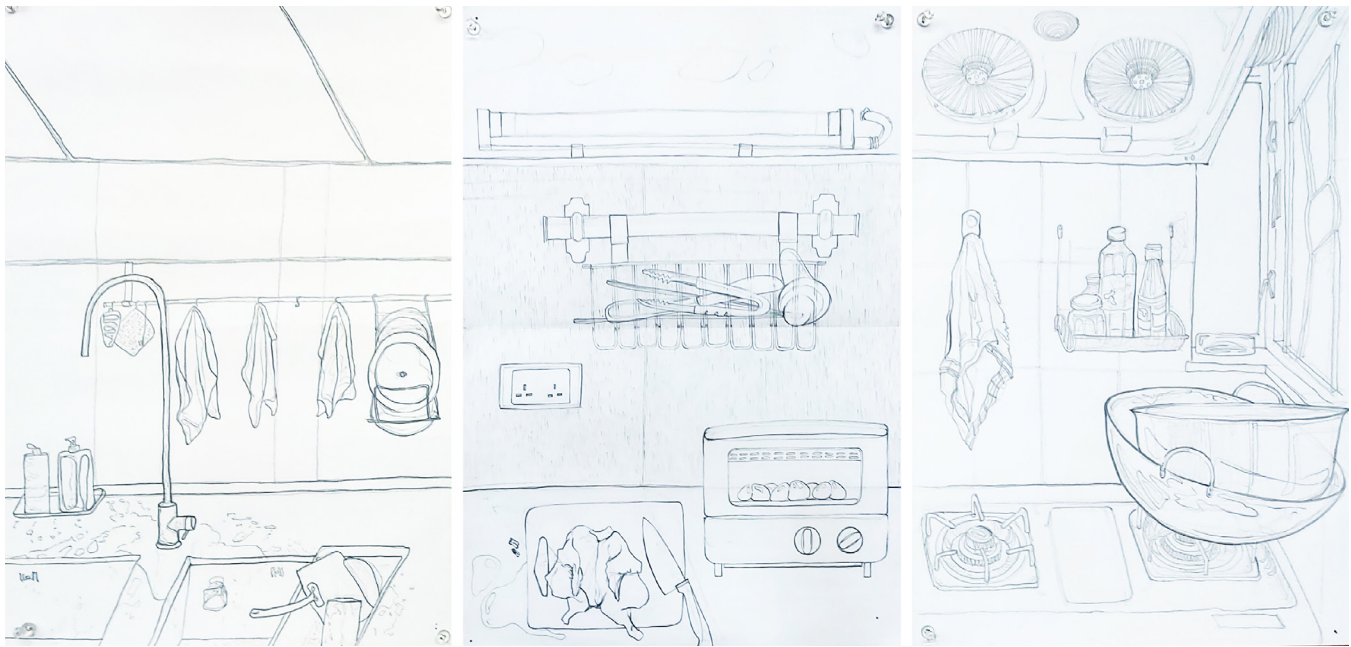


Figure 3. The drawing process starts with a conversation among three contributors in school, where they discuss using a horizontal datum (the back edge of the countertop) as a common thread in their individual drawings. The drawings are completed in their respective homes at different times and spaces. The triptych is assembled for the first time during a sharing session with the rest of the classmates, drawings by Yi Wing SO, Sien Yi CHENG and Hoi Lan CHEUNG.

in individuals who lack confidence in their abilities. By embracing imperfections and focusing on personal expression, the participants could unleash their creativity and develop their unique voices. The workshops fostered a mindset shift, empowering the students to approach their artwork with freedom and authenticity. As a result, they gained confidence in their abilities and learned to appreciate the beauty of their individual interpretations. Overall, the workshops aim to provide experience combining fundamental techniques, bursts of focused activity, active participation, and the promotion of self-acceptance. The participants left the workshops equipped with a deeper understanding of creative expression, improved technical skills, and a newfound confidence to continue their learning journeys.

We make drawings not to 'show' but to 'see'. This simple turn of phrase expresses an inversion: rather than starting with a pre-formed/pre-existing image or idea that we then project upon the world, the act of drawing becomes a site of exploration and inquiry. This site extends to our studio that now too becomes a site of receptivity and listening. This receptivity allows our works to emerge within the atmosphere of our embodied situation, mingling our questions with the specific spatial and material imaginations of our making. This receptive exploration invites the world into our questions, transforming our perceptions and consequently our worldviews. Understanding emerges in direct conversation with the situations within which we ask our questions⁷.

—David Gersten, *TED Talk 2017*

FROM QUESTIONING, LISTENING TO DRAWING

Questioning was vital in the project, initiated at the beginning and throughout the workshop. These questions explored both the conceptual and practical aspects of drawing, such as: What defines a drawing? Is it primarily a means of communication, a tool for thinking, or could it be viewed as a process or platform for social interaction? Should we exclusively approach drawing from an aesthetic standpoint, or can it serve as a vehicle for inclusion? This question frees the drawing to become for and by everybody and situates this research within other scholars working on the theme of co-creative partners, including Tania Kovats' research which has noted that drawing does not belong to artists; it belongs to everyone⁸.

Moreover, the notion of emancipating the drawing to an everyday act rather than a high and exclusive art form⁹. Instead of treating drawing as a talent-based skill set, can we accept it as a fundamental form of literacy, equivalent to writing, math, and science? Can drawing be approached as a game-like activity (e.g., Exquisite Corpse) characterized by serendipity, creativity, enjoyment, and therapeutic qualities? On a practical level, discussions focused on drawing methodologies, including methods, processes, drawing instruments, and duration, among other considerations.¹⁰

As Richard Sennett asserts, collaboration is a craft, and the foundations for skillful collaboration lie in learning to listen and discuss. In "Together" he argues the various ways in which people can cooperate online, on street corners, in schools, at



Figure 4. Drawing Together elective during summer of 2021, photograph by author.

work, and in local politics. Sennett warns that we must learn the craft of cooperation if we are to make our complex society prosper, yet he reassures us that we can do this, for the capacity for cooperation is embedded in human nature. Drawing together works within this context, and departs for examples observed through Sennett's empirical studies.¹¹

DRAWING EXAMPLES

The first example I would like to delve into is the "Drawing Life" project exercise, as depicted in Figure 1. This particular activity revolves around a collaborative effort between two individuals set within the space of a design studio. The task at hand is to sketch a life model, with each participant given a brief time frame of 5 minutes to complete their speedy interpretation. The process unfolds intriguingly as the first student captures the model's essence and gesture within their initial sketch. As the allotted time elapses, the drawings are swiftly handed over to a neighboring colleague, introducing an element of unexpected surprise. The second student, now possessing their peer's artwork, is prompted to build upon the existing lines rather than starting from scratch. This interruption of the conventional single-authorship dynamic ignites a renewed sense of spontaneity and improvisation. As the drawing project primarily involves architectural students, as part of the departmental course offering, they are encouraged to approach these passed-on drawings not merely for their aesthetic merits but also as potential "contexts" of inspiration for inclusive interventions and co-authorships. Drawing upon several architectural analogies, the exercises prompt the students to respond to the passed-on contexts, compositions, drawing styles, and circumstantial conditions encapsulated within the collaborative artworks.

Through this process, we challenge the participants to think beyond their own perspectives and embrace the concept of shared creation. The exercise cultivates a deeper understanding of the interplay between different voices and the potential for collaborative synergies to enhance and transform the creative output. By exploring and responding to the drawings in this context, the students are exposed to a broader range of possibilities and learn to embrace the richness of collective authorship. As the workshop progresses and the notion of single authorship is challenged, the drawings evolve into a platform for what can be described as "relational authorship." In this new paradigm, individuals actively engage with and respond to each other's creations, forming a collaborative tapestry of expression.

In the second example, titled "Life of Three Kitchens," depicted in Figure 2, three student participants embrace a triptych format to portray their respective home kitchens. The process begins with initial discussions held in the studio, where ideas are conversed¹², and concepts take shape, including the rules of engagement and underlying framework, such as compositionally dividing the portrait paper into four parts and allowing the

lower one-quarter as the horizontal datum for the countertop and upper-quarter as the underside of cabinets or exhaust fan. Subsequently, each participant embarks on their individual drawing, producing lines within the private settings of their own homes, at different times, and in distinct spaces. This asynchronous method of creation stands in contrast to the first example discussed. Here, the surprise factor comes into play when the triptych drawings are finally brought together in the studio, and reassembled as a unified composition for the very first time. The distinctiveness of this approach lies in the unveiling of the collective creation, where the individual contributions harmonize, interact, and potentially reveal unexpected connections. Combining the separate kitchen drawings in the studio offers a moment of revelation for the participants and provides an unexpected visual experience for viewers. Seeing the synchronicity of three interpretations within the triptych framework sparks intrigue as the individual perspectives coalesce into a multifaceted narrative. This method showcases the power of collaborative creation and the ability of artists to inspire and build upon each other's work, transcending the boundaries of traditional single authorship.

During the workshop's progression, we delve into various methods of collaborative drawing, exploring the differences between supervised and unsupervised approaches and synchronous and asynchronous participation. As we venture further, the scale of collaboration expands gradually, starting with two, then four, and eventually eight collaborators. The climax of our collective effort culminates in a final piece that involves the grand contribution of 20 students. What began as a workshop for students soon became an immersive experience, prompting them to invite their friends and family to partake in the drawing process. Consequently, the question of who can contribute and draw becomes a topic of discussion and contemplation.

The result of this collaborative endeavor is "The Massive Individual," a large scroll graphite drawing spanning a length of 10 meters by a width of 1.5 meters. Drawn over an intensive four-day period in June 2021, this scroll captures a surreal blend of fiction and reality. Rather than depicting the Mass Transit Railway (MTR) stations in their actual settings and geographic locations, the drawn MTR stations are linked through shared atmospheric qualities as interpreted by students' observation and analysis. This turn of interpretation pays homage to the Psychogeographic Map of Paris by Guy Debord in 1957¹³, which sought to uncover the hidden and implicit atmospheric connections between various districts within Paris. In Hong Kong, the MTR is an economic, social, and spatial infrastructure. As such, it serves as the common ground for the 20-plus contributors and becomes the focal point of exploration regarding the relationship between the individual and the city. This collaborative mega-drawing brings questions surrounding personal identity and urban dynamics to the forefront, offering viewers a visually paradoxical experience.

Static versus Dynamic: Some forms of collaboration assume that the task is simply to get participants to contribute existing resources or knowledge. These forms focus on coordination of static capabilities. Other forms of collaboration take as a starting point the challenge of creating new knowledge and capabilities so that participants individually get better as a result of the collaboration¹⁴.

—John Hagell III et.al., *Defining Common Collaborative Tensions*

RELATIONAL COLLABORATION

Single authorship remains the predominant motivation and premise for architectural teaching and learning. Despite a few well-tested prototypes like the design-build studio that encourages peer-to-peer learning, most group work frequently found in architecture curriculum tends to be task-oriented, focusing on group on-site analysis, construction reports, community interface, 1:1 installations, or large-scale urban projects. Although these forms of collaboration offer opportunities for inclusiveness, idea sharing, compromise and discussion, their potential in offering creative agency is questionable. As the process tends to build upon existing knowledge rather than nurturing the potential for “relational collaboration”.

Relational collaboration, as described by John Hagel involves the challenge of creating new capabilities and knowledge that enable participants to enhance their individual growth through collaboration. Its primary goal is to facilitate the exchange of tacit knowledge and provide creative autonomy while simultaneously learning from and with others¹⁵. *Drawing Together*, as a project, actively cultivates relational collaboration by carefully designing a conducive learning environment and establishing a framework that includes rules of engagement, atmosphere, time, and space. It recognizes that productive collaboration is contingent upon the unique contributions of the individuals involved and is therefore a scalable approach adaptable to diverse contexts.

In contrast, transactional collaboration, characterized by a linear progression reminiscent of Fordist division-of-labor, although commonplace in architectural production, contributes relatively little to the creative synthesis sought in the educational context. The project presents a systematic inquiry as it endeavors to scrutinize the intricacies and paradoxes associated with attaining synthetic teamwork, a distinct attribute prevalent within architectural education. The project astutely acknowledges the formidable task faced by educators in cultivating designers who can adeptly fulfill the dual mandate of exercising creative individuality while seamlessly integrating as effective team players. Central to this endeavor is the emphasis on relational collaboration, seeking to transcend the constraints of conventional individual-centric pedagogy. Instead, it

aspires to cultivate an enriched educational milieu that fosters the development of collaborative proficiencies, fosters critical thinking acumen, and instills innovative problem-solving ca-



Figure 5. Interior view of the Engineering Room showing draughtsmen working at the Ford Motor Company Willow Run Bomber Assembly Plant, Willow Run, Michigan, United States.

pacities among students.

Through a conscientious consideration of relational collaboration within the workshop process, *Drawing Together* presents an alternative approach that transcends mere surface-level acquisition of skills and knowledge. It fosters an environment wherein students are motivated to partake in meaningful interactions, exchanging diverse perspectives, and actively engaging in the co-creation of knowledge and design outcomes. The project acknowledges the essence of authentic creative synthesis, emerging from the collective contributions of individuals who are empowered to express their unique insights while collaborating with others. In this collaborative framework, *Drawing Together* endeavors to redefine the established boundaries of architectural education, stimulating novel paradigms of learning, thinking, and professional practice within the discipline.

FORDIST DIVISION-OF-LABOR OR CREATIVE COLLABORATION?

Architectural drawings, particularly construction documents, have a long standing history of division of labor. It is not uncommon for a single drawing to undergo multiple revisions by different individuals throughout its lifespan. Before the use of computers, paper drawings will often include the names of the draftsman in the title block. Denoting authorship and

responsibility. Over the past three decades, collaborative efforts are often facilitated through various tools such as Xreference in AutoCAD and Link in Revit, among others. These tools enable simultaneous contributions from multiple participants, allowing for efficient coordination and synchronization. However, it is worth noting that such collaborations often need to catch up in terms of yielding creative contributions.

The argument supporting group work often draws upon its prevalence in professional practice. Advocates assert that complex projects in the real world are rarely accomplished through a single person's individual efforts but rather through a team's joint contribution. They emphasize that each team member has a designated role in the project's delivery process. While this viewpoint may hold true in professional settings, it fails to fully capture the dynamic relationships that exist within an academic environment. A chain of command is established in business practices, guided by explicit or implicit hierarchies, rules, and established practices. Roles and responsibilities are often clearly defined, with individuals occupying specific positions within the organizational structure. However, in an educational context, particularly in the realm of group work among peers, such a chain of command does not exist or, if present, takes on a different form.

The facture of collective drawing is not to be interpreted as simply group work, as in Fordism's division-of-labor. But rather as an act of drawing engagement that is relational and contingent upon the actions of those contributing authors. This approach of the collective/ collaborative is particularly provocative today, as it offers an alternative voice to the current debate and theorization of post-digital representation. Venetian architect Marco Frascari describes the word facture as "derived from the past participle of the Latin verb 'facio', 'facere', meaning both to make or to do; it thus has the same derivation as "fact", which might be defined as something evidently done. Understood in this way, 'fact' and 'facture' are closely related; to consider an artifact the same way as its facture is to consider it as a record of its having been made."¹⁶

In the final semester of my undergraduate studies, I took the opportunity to participate in the course "Drawing Together 2.0". "I would never, ever have the chance to sit with a group of people, merely for drawing together after graduating", I thought. Throughout the 13 weeks, I could draw whatever I saw in my mind, taking part in a journey of discovery through drawing without being judged on how well I draw. Despite drifting from Drawing Together to "Drawing Together, Not Together" due to the pandemic, the course ended up as one of the most memorable courses in my four years of architecture studies. Unlike traditional architectural drawings where every line were drawn carefully with measuring instruments, the drawings in this course focus on the mutable potential that collective drawings create. Individuals lost control of

the overall composition of the drawing but where they gain the opportunity by responding and negotiating with what others has drawn. I truly enjoy the moment when receive the message of how the drawings evolved. It was always surprising and often evoke new inspiration for what else could I add to the drawings. In the last semester of my bachelor's degree, I fell in love with drawing again, my sketchbook is no longer filled with comments from studio lessons, but with sketches, doodles, and whatever came to my mind. The course reminds me of why I chose to be in the Architectural School ----- to Draw.

—Yuen-Ching Rani LI, *Afterword of course booklet*

CONCLUSION

Drawing towards a collaborative turn, challenges the prevailing practices of architectural collaboration by exploring the paradoxical and intricate nature of achieving synthetic teamwork within architectural education. It recognizes the unique challenge of educating designers to fulfill their traditional role as creative individuals while enabling them to understand the benefits of being effective team players. The project aims to bridge the gap between individual creativity and collaboration by exploring alternative engagement models. It seeks to redefine the boundaries of architectural drawing and push the limits of what can be achieved when multiple minds come together to create. It recognizes that the traditional division of labor in architectural drawings often results in a fragmented approach, where individual contributions are isolated and fail to generate genuinely innovative and cohesive outcomes. By cultivating collaborative skills and fostering a collective mindset, *Drawing Together* challenges the notion that creative contributions are sacrificed in the pursuit of efficient division of labor. It encourages shared responsibility and power, implying the establishment of a creative platform, tending towards a democratic ecosystem. Through this exploration, the project aims to unlock the potential for genuine creative synthesis within the collaborative process. *Drawing Together* recognizes the importance of balance in architectural education—the need to nurture individual creativity while also equipping students with the ability to effectively collaborate and contribute to collective endeavors. By tackling the complexities of synthetic teamwork, the project offers a transformative approach to architectural education, one that embraces the simultaneous development of individual talent and collaborative skills. Through *Drawing Together*, students push the boundaries of what is possible when multiple perspectives, ideas, and talents converge, ultimately redefining the landscape of architectural collaboration.

The work described in this paper was substantially supported by a grant from the Research Grants Council (GRF) of the Hong Kong Special Administrative Region, China (Project No. CUHK Project No. 14605022)

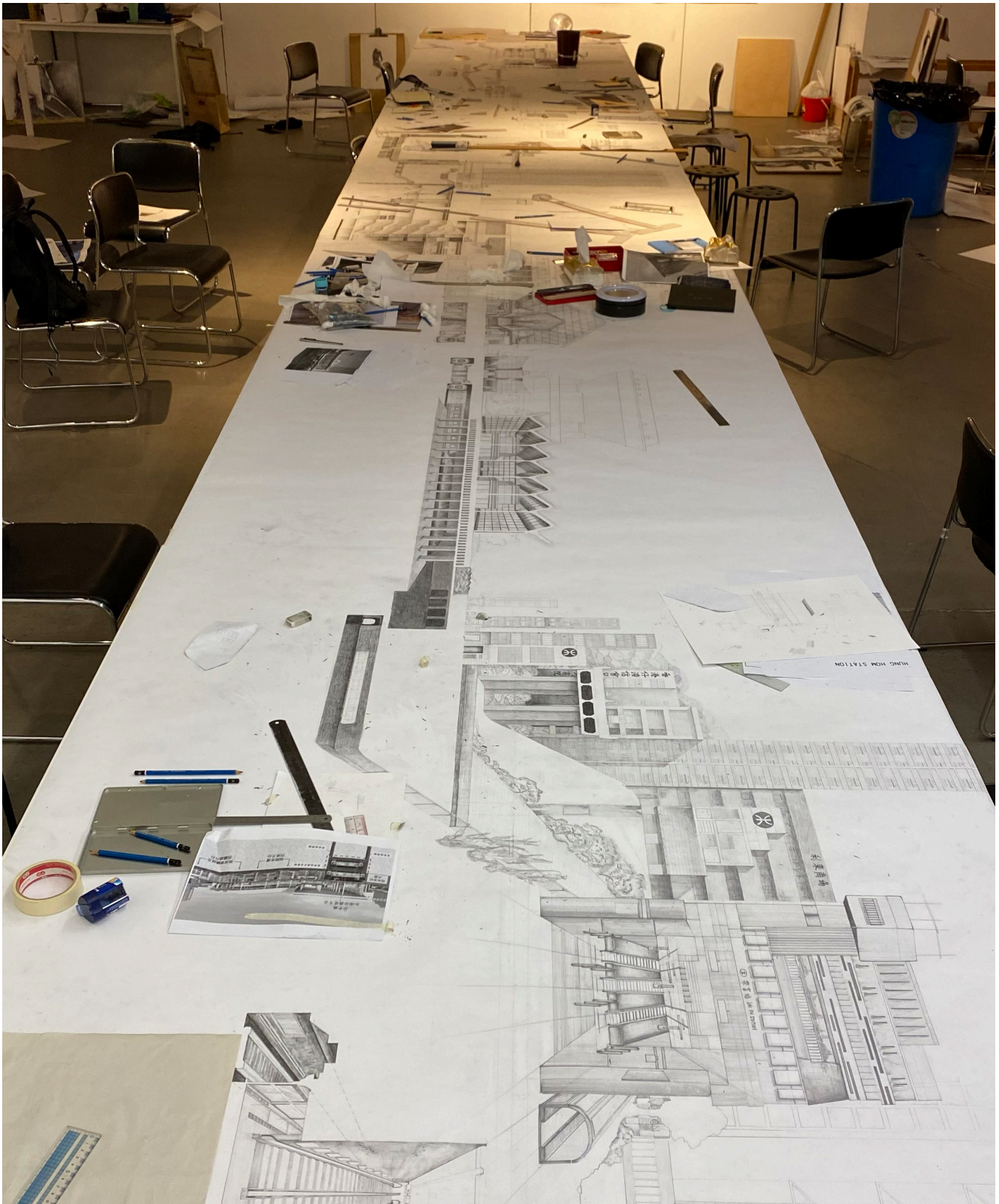


Figure 6. The Massive Individual work in progress. The 10 meters x 1.5 meter long drawing involves the participation of twenty students from the School of Architecture, CUHK.

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