

Critical Pedagogy and the Pluriversal Design Studio

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Abstract: Studio learning is central to the teaching of design. However, the disruption of the COVID-19 pandemic, alongside emerging and historic critiques of studio pedagogy, creates a space for critical engagement with the present and potential futures of design education in studio. In this paper, I outline historic critiques of studio pedagogy, drawing primarily from critical pedagogy literature to frame issues relating to disempowerment, student agency, and monolithic representations of the student role and student development. I build upon this critical foundation to re-imagine studio practices as pluriversal, recognizing the challenges and opportunities of bridging epistemological and ontological differences and facilitating the potential for pluralism in design curricula, our student experiences, and the future of design professions.

Keywords: studio pedagogy; design education; critical pedagogy; pluriversal thinking

1. Introduction

For generations of design students, the studio has served as the center of educational practices in a range of art and design disciplines (Anthony, 1991; Cennamo, 2016). While there is undoubtedly tremendous value to the practices, rituals, and routines of studio—honed over centuries in response to numerous shifts in design culture, theory, and society—there is also an under-inspected and under-theorized danger to studio practices that warrants further investigation. While critique of studio is not new (Anthony, 1991; Chrysler, 1995; Dutton, 1991; Gray, 2013; Koch et al., 2002), radical shifts in the orientation and core knowledge of design disciplines, rapid globalization and increasing diversity in design disciplines, and challenges brought about by the COVID-19 pandemic set the stage for new critical inquiry on studio education practices.

The recent pandemic circumstances may allow us a once-in-a-generation questioning of our pedagogical practices, our warrants for determining who is included and who is excluded, and what instructional practices serve as the core of design studio educational experiences.



We can begin our inquiry by inspecting some of the key rituals of studio: critique and the development of design competence.

In a classical sense, critique is often pictured through the lens of Schön as the intimate interaction between a tutor and a student (Schön, 1983, 1985), revealed through an extended conversation that has been challenged by previous scholars to be fraught with power inequality, lack of acknowledgment of the lived experiences and knowledge of the student, and the underlying assumption that design work is a solitary endeavor (Webster, 2008). How might Schön's vision of critique look in a world where physical distancing is the only way to participate in person, where collaborative and dynamic engagements among multiple designers are the norm, and where students bring with them a vast store of cultural and social knowledge that can be brought to bear in a design project. What is the role of the instructor? How can the voice and experiences of the student be amplified? While the result may be a critique that is chaotic, cacophonous, and perhaps even relies upon digital means of communication in some instances to convey meaning and facilitate full participation, perhaps this points to a new "ideal speech situation" for design critiques? Similarly, the development of competence has often been framed as an almost monolithic movement from a "novice" to "expert" state, with the underlying assumption that students are in "deficit" rather than having skills that can be built upon or transformed. In this framing, cognitive apprenticeship is almost solely unidirectional, with knowledge flowing from instructor to student as the student moves from "non-designer" to "designer" status (Siegel & Stolterman, 2008), moves from "uninformed" to "informed" (Crismond & Adams, 2012), or crosses a series of thresholds that mark their increased expertise (Kharrufa & Gray, 2020; Osmond et al., 2009).

In this paper, I will seek to problematize studio pedagogy practices through two main arguments. First, I will build upon critical pedagogy investigations of studio education to characterize key challenges to student autonomy and development. Second, I will frame opportunities for a pluriversal approach to studio education, identifying new instructional practices and means of supporting student agency within a pluralistic ontological design space.

2. Critical Pedagogy: A Very Brief Introduction

The concept of a critical pedagogy first emerges in the work of Freire (1970/2000) drawing on Marxist theory, characterizing the modern educational system as being dominated by oppression and dehumanization—a struggle between students looking to be recognized as free, autonomous beings, and the distortion or subjugation of this freedom by the oppressor. This so-called "banking" approach in traditional, oppressive educational systems assumes that students are empty and need to be filled, where the teacher knows everything and the student knows nothing, resulting in a dehumanization of the individual student. While this approach to the study of educational systems through the lenses of oppression and power are common in the broader educational literature is common (see Darder et al., 2017 for a comprehensive introduction), this critical framing of education is less common in

the context of design and studio education. Thus, this brief introduction centers on rare examples of critical pedagogy scholarship across multiple decades. Crysler (1995) reflects on how this banking approach emerges in the studio, describing one goal of studio enculturation to “return the student to a state of intellectual infancy in an attempt to produce in the budding architect what Kazys Varnelis has called an ‘innocent eye.’” In contrast, Freire calls for a “problem-posing” form of education, which “affirms men and women as beings in the process of *becoming*—as unfinished, uncompleted beings in and with a likewise unfinished reality.” (1970/2000, p. 84, emphasis in original). In this respect, critical pedagogy and progressivism have a substantial area of overlap, both calling for a humanization of the student, giving them freedom to work out their own educational experience.

The critical pedagogy perspective, however, moves beyond a call for individual freedom of the student to an accounting for power relations and norms taught in the hidden curriculum, and how these isomorphisms link to the larger social system in which students and faculty live and teach. This perspective is currently used in a wide range of critical explorations of educational systems, drawing on feminist theory, queer theory, critical race theory, and others to describe oppression and struggle in traditional education. Critical pedagogy is positioned in opposition to the increasingly positivist, market-driven orientation of teaching (Giroux, 2011), even while scholarship on teaching has become more dominantly post-positivist, and is used as a way to reflect on inequalities that are intrinsic to certain forms of education from both student and instructor points of view (Darder et al., 2017). Freire’s (1970/2000) concept of “banking education,” then, applies not only to the transmission of objectified content to students that are empty and need to be filled, but also to training in rule-based procedures and norms that reproduce the structures of the larger social system (cf., Giddens, 1984).

A critical pedagogy perspective has previously been applied by Dutton (1991) and Crysler (1995) in architectural education, but this perspective has not been commonly used as a framing in other areas of design education. In an architectural design context, this perspective revealed and described the unequal power relations inherent to traditional forms of studio education (Dutton, 1991; Willenbrock, 1991), and Crysler’s (1995) claim that design educators need to identify a more democratic model of studio practice that moves beyond a transmission model of teaching. In traditional studio pedagogy, the professor and students are cast in a master-apprentice relationship, with interactions dictated through high stakes evaluations that are often public in nature (Anthony, 1991; Webster, 2006). While other educational scholars may be uneasy with the framing of studio pedagogy as “transmission-focused” due to its action orientation and frequent focus on projects and other forms of applied instructional practices, Crysler focuses on transmission as it relates to the assumptions that students are “blank screens ready to receive unmediated transmissions of skills and information as delineated by experts” (1995, p. 210), leaving students with little opportunity to express alternate values through predetermined genres of studio work. Studio activities are centered on design activity, focused implicitly on the development of professional judg-

ment, with regular opportunities for evaluation, just-in-time teaching of concepts and methods, and visible work-in-progress. Anthony (1991) and Dutton (1991), among others, consider these interactions to be unidirectional in focus within a traditional studio implementation, with legitimized teaching only occurring in professor to student interactions. Gray and Smith (2016) reflect on more recent work relating to issues of equity and power in studio education, engaging with characteristics of studio that may inhibit flexibility, diversity, and sustainability—with many key concerns also relating to the resource-intensive and power-laden nature of this pedagogical approach.

2.1 Hidden Curriculum

The “hidden curriculum” is one analytic framing inspired by critical pedagogy (cf., Snyder, 1970), referring to the things that students learn even though they are never explicitly taught—framing this learning as inherently normative and often fraught with unequal power relations and sexism. The hidden elements of the learning experience in studio are structural and systemic, implicit, frequently unacknowledged by instructors or students, and are both individually and collectively experienced. The hidden curriculum is also difficult to define or pin down, since it exists across social actors, contexts, programmatic elements, and courses or modules, and are not fully contained in any one area of the curriculum. Problematically, hidden elements of the curriculum frequently reproduce power imbalances and other forms of harm that are systemic and can produce harm across generations and other sectors of society beyond the design discipline (e.g., racism that is reinforced as part of the hidden curriculum that then has the potential to permeate city planning or architectural decisions). Dutton (1987) described the utility of this concept in uncovering and evaluating studio practices through the lens of hidden curriculum as follows:

“educators can clarify the relationship between social practices and power. That is, injustices and inequities of society are not simply nestled in the mind, but are embodied in forms of lived experiences and social relationships that penetrate to the innermost recesses of human subjectivity—forms that in this society tend to legitimize top-to-down models of authority and types of social control characteristic of most institutions.” (p. 17)

This attitude towards inequity and power imbalance is focused on making such things visible and working with them directly, rather than suppressing or continuing to hide them. While portions of the hidden curriculum may be best to leave hidden, at least in some instances, things that are hidden in studio curricula and experiences can also be revealed and articulated. However, there is a significant difference in *deliberately* employing a hidden curriculum as opposed to simply “doing it” without knowing or questioning it. Gray and Smith (2016) note “the disjuncture between the planned curriculum and what is experienced by students” (p. 262), and in addition to this student-facing tension, there are also differences in how educators’ awareness of the hidden curriculum may impact particular pedagogical decisions. While the hidden curriculum in its historical and critical framing is often the sum

of many uninspected practices that are inherently power laden and normative, Gray, Parsons, and Toombs (2020) argue that the hidden curriculum has the potential to be *de-signed*—shaped in intentional ways to limit unequal power relations and harness particular norms that can then be progressively disclosed to students throughout their educational experience. Gray et al. (2020) articulate that this design of the hidden curriculum requires educators to “attend not only to the designed curriculum (i.e., what is intended by us as program designers) but also the lived experience—what is actually felt and experienced by students in terms of both learning and socialization” (p. 45). While many tutors and students are unaware of the hidden curriculum of their individual design studios, these hidden norms and structures can be revealed through reflection and instructional scaffolding. Building on this awareness, tutors can then engage more intentionally in evaluating the appropriateness or otherwise of hiding or disclosing elements of the curriculum, describing how these elements of the hidden curriculum impact the intended and actual student experience and how that contributes to students’ learning, immediately or over time.

2.2 Historical Reflections on Studio through the Lens of Critical Pedagogy?

Early literature connecting critical pedagogy and the design studio included a range of recommendations that may create more inclusive learning environments where students could experience increased agency and control. Many of these early reflections parallel contemporary calls for diversity, equity, and inclusion in higher education, which I will draw together in the final section of the paper.

Even in the early 1990s, there was burgeoning interest in moving beyond a defined and prescribed (largely) Western canon, with Crysler identifying one key challenge as the immovable and restrictive nature of curricula in many design programs. Through the undergraduate-focused lens of Willenbrock (1991), tensions around the power-laden design jury and assumptions of only unidirectional knowledge transfer, with the recommendation to “overturn the asymmetrical power structure and its noncritical ideologies, and adopt a simple philosophical platform of equality for all people.” Similarly, Crysler (1995) identified the need to “allow different voices to be heard and to participate in a nonhierarchical fashion in the ongoing construction of society.” Dutton (1991) provides even more specific guidance towards what he referred to as a “democratization of the studio.” To make this democratization real, Dutton advocated for making “students’ subjectivities [...] central to pedagogy [such that] educators make these problematic and critically engaged, so that students and teachers can see how their subjectivities are constituted, promoted, or constrained by configurations of power within class, race, gender, ethnicity, and culture.” Multiple strategies could be used to support the more central role of the student, including realigning power relations among students that support student-student engagement and not only instructor-student engagement, and building in pedagogical flexibility to allow students to investigate issues that they are interested in.

2.3. Emerging Critical Perspectives

Increasingly, alternative perspectives have begun to permeate design education and design scholarship and imagine a new set of futures. Escobar's (2018) call for a design pluriverse, "a world where many worlds fit," resonates with this emerging call for pluralism, and is supported by multiple, increasingly convergent strands of critical scholarship. For instance, Rosner (2018) uses an approach she calls "critical fabulations" to create new stories about the design of technologies that de-center traditional stakeholders and voices and privilege the perspectives of those that have been neglected, disempowered, and in many cases, forgotten. Winchester (2018) makes a similar argument in foregrounding a conceptual and methodological approach known as Afrofuturism, considering other sources of knowledge and meaning beyond white and Western hegemony that might meaningfully guide and inspire the design of future technologies. These historically marginalized perspectives have also been highlighted in a recent book describing *The Black Experience in Design* (Berry et al., 2022), where design scholars illuminate marginalized—and often previously undocumented—voices that bring further dimension to the study and practice of design. These perspectives, and others, join with increasing calls within design scholarship that seek to identify and privilege indigenous knowledges and voices that are typically less represented in design studies and design education. (O'Sullivan, 2019; Tunstall, 2013), alongside efforts to decolonize design and critically question the largely White and Western roots of the modern design canon (O'Leary & Turner, 2020; Schultz et al., 2018).

3. From Pedagogies of Fear to Pedagogies of Emancipation

Building upon historical conceptions of critical pedagogy, I frame opportunities for moving studio education from a pedagogy focused on fear to one focused on emancipation. As documented by multiple scholars across four decades, studio practices have often been used in a transmission-focused mode to reduce students' agency, value, and ability to speak. This dominant pedagogy of fear¹, as experienced by students, can be articulated through multiple aspects of the pedagogy. Fear is operationalized most dramatically through power-laden critique practices such as the design jury and large studio critiques, which Anthony (1991) described as being on the "firing line," Willenbrock (1991) described as a "tool of oppression," and Blair (2007) characterized as feeling "gutted." These practices reproduce, on a cultural level, what Scagnetti (2017) describes as a "climate of fear, defensiveness, and anxiety" (p. S782). While some commitments have been made to improve the climate of studio (e.g., Blythman et al., 2007), contemporary accounts—both from my own scholarship and from other scholars—suggest that fear still has a substantial impact on students' experiences of studio practices.

¹ This framing of "pedagogies of fear" emerged through a conversation among participants of the *Studio Matters* symposium in 2020, and I gratefully acknowledge the shared authorship of the concept.

As design educators consider how studio practices might be productively shaped and re-designed in the post-COVID era, we should consider not only the guidance of past critical pedagogy scholars in art and design, but also take a structural approach to consider which elements of studio we choose to feed and nurture, identify new forms of knowledge that students bring with them, and anticipate new pathways and identities that studio education might support. In other words, embrace a studio pedagogy that is defined by its emancipatory qualities rather than primarily its use of power-laden tactics that inspire fear and anxiety. I will characterize three lenses through which studio can be inspected, conceptualized, and re-formed: hegemon(ies) of the studio, instructor capacity and roles, and student capacity and roles.

3.1 Hegemon(ies) of the Studio

When considering studio in its historical sense, we can ask: Where has studio been most unifying? Most divisive? Most concerned with human rights and the future of the planet? Concerned primarily with supporting capitalism and profit? Considering the potential—and historical—hegemonies of the studio may provide a platform through which to engage differing philosophical and pragmatic ways of being in studio.

One level of hegemony might relate to the model of acquisition of skill in relation to the sociality of the studio. Is there a unitary definition of what competence looks like, and how it is attained? Is this skill acquisition a result of reflection? Or an engagement in often decried “crunch culture”? Another social dimension of this acquisition might relate to what kinds of social and political values are prized. Is individualism and competition celebrated, or is collective engagement and collaboration? Are assessments structured as a zero-sum game where students are pitted against each other, or are opportunities in place for every student to grow, develop, and succeed? Are juries used to “weed out” students in an intentional culling of the student population, or are instructional strategies used to provide support for equitable development of competence?

Another level of hegemony might appear in relation to dominant philosophical modes within a given disciplinary setting. Are certain approaches prized and awarded at a higher rate than others? Does a certain style, aesthetic, or means of arguing for quality work dominate? Are there spaces for different disciplinary traditions to enrich, question, and produce tensions within the primary design discipline? What is the proposed or actual relationship between scholarly, pragmatic, and practice-led forms of engagement in design and other knowledge-building outcomes? And what pathways into future professions are considered?

3.2 Instructor Capacity and Roles

Within broader hegemonic conceptions of the studio, we can also consider the roles, archetypes, and pedagogical “moves” that instructors may use to form a broader umbrella of learning experience. When considering a transition from a pedagogy of fear to one domi-

nated by emancipatory opportunity, instructors may consider: What are the different perceived and actual archetypes that a studio instructor can bring with them to pursue student learning? How can these archetypes be co-constructive and co-constitutive in aiding student learning in multi-dimensional ways? For example, while a pedagogy dominated by fear as an edge case is a pedagogy that preys on the weak, using power as currency to intimidate instead of to nurture in ways that often impact future generations of students through a structural perpetuation of fear. A pedagogy foregrounding only nurture and care could provide an environment that would aid those students already in control of their metacognition and reflective capacities, providing a space to play, to explore, to grow; however, for students with other neurodiverse profiles or students with less developed metacognitive control, this lack of structure could result in student outcomes that are highly polarized and bimodal. In practicality, student abilities and experiences are diverse, and so too must be our pedagogical toolkit. Consider the contrasts and opportunities as a continuum, anchored on either end by roles that reinforce fear and roles that reinforce emancipation (Table 1).

Table 1 *Continua of Instructor Roles.*

Pedagogies of Fear	Pedagogies of Emancipation
Instructor as drill sergeant	Instructor as caregiver and nurturer
Instructor as critic	Instructor as facilitator
Instructor as dogmatic	Instructor as translator and connector

These roles or archetypes can productively connect to both specific instructional moves and a broader philosophy of engaging in studio education, impacting individual student interactions, key project and program milestones, methods of assessment and enculturation, and encompassing notions of studio culture. These roles will also connect to instructor beliefs that relate to instructional and disciplinary norms, attitudinal and emotional commitments, philosophies of learning, and engagement with various forms of design knowledge.

3.3 Student Capacity and Roles

Students bring their lived experience with them into the studio and cross characteristic thresholds to think in ways that are consistent with professional design practice (Kharrufa & Gray, 2020; Osmond et al., 2009). However, this transition could be viewed as less of an acquisition of knowledge—broadening the focus to the acquisition of new worldviews, perspectives, habits of mind, and mindsets. In this sense, a pluralistic approach to studio practices and pedagogies is necessary to avoid a hegemony of one monolithic and fully known or knowable studio—one which by its very definition excludes and gate-keeps. Instead, we might consider the connecting interface of the early design student, the instructor, and the

space of professional practice as a broad space that both provides a conceptual infrastructure through which to communicate and build competence and a plurality of potential paths, areas of focus, and connections of different forms of disciplinary and trans-disciplinary knowledges.

As part of this pluralism that rejects traditional hegemonic norms of student capacity and progression, recognizing that students come into design programs as full people already, we should be able to identify other ways to characterize competence, thereby rejecting the *tabula rasa* assumptions implicit in much of traditional design pedagogy. This recognition can come in two forms. First, the assumption that there is a “correct” or “normal” profile for a discipline, which often relies upon access to training, education, and resources at primary or secondary educational levels. In traditional art and design domains, this often presents through identity claims around creativity or technical artistic skill that frame one’s experience in ways that can be assessed to be “correct” (e.g., requirements to have a portfolio prior to even beginning a program represents a substantial barrier to entry). This first assumption limits who feels as if they are able to participate as a designer. Second, the assumption that one is not an artist or designer unless they start at the very beginning along a linear and prescribed course of design projects rejects the designerly involvement of humanity more broadly (cf., Manzini, 2015; Nelson & Stolterman, 2012), and the ways in which even a beginning design student has already used everyday design approaches to intentionally change their own reality and environment. This second assumption leads to a unitary model of progression and competence development in studio that obscures differences among students rather than celebrates that difference.

5. The Studio as Pluriversal

The pluriversal studio is a space where multiple ontological realms come into contact. While the role of instructors and students is already well established as part of the concept of studio in an educational sense, there are other structures which may be useful in revealing and describing the complexity of studio through a more critical gaze. How can instructor and student archetypes be productively mapped and choreographed? If we start with the notion of student goals and professional competencies as pluriversal, *a priori*, what spaces do we open up to consider the diversity of our curriculum, our student experiences, and the future of our professions? In the sections below, I consider how a pluriverse of knowledges, pathways, and instructional moves may positively impact the emancipatory qualities of studio education experiences and scholarship of teaching and learning in these environments. My aim is not to detail specific details of how these changes might be enacted, but rather to use this section to provide a foundation for conversation, critical inquiry, and future elaboration of potential changes in pedagogical practices.

5.1 Knowledges

In the past decade, there has been increasing interest in decolonizing, indigenous perspectives (e.g., O’Sullivan, 2019; Tlostanova, 2017) in parallel with interests in anti-racist and social justice-informed scholarship (e.g., Costanza-Chock, 2020; *DAP Collective*, n.d.). Both of these movements challenge the hegemony of the Western design canon, which undergirds much of the Bauhaus tradition of studio education that implicitly structures many contemporary design programs even a century after its formation (Forlano et al., 2019). In imagining a pluriversal studio, we may consider shifting from the assumptions of *tabula rasa* that Freire criticized, and instead focus on the knowledge and experiences that students enter their program with, whether viewed as repertoire that is informed of precedent (Boling, 2020) or “funds of knowledge” (Smith & Lucena, 2016) that students leverage based on their cultural, social, and cognitive life experiences. These forms of “everyday” knowledge have a substantial potential to counter the deficit assumptions that are built into much of modern educational practice, shifting the question of knowledge from transfer—implying a dominant sender and passive receiver—to transformation, which leverages discovery and translation of knowledges across multiple disciplinary spaces in relation to lived experience. The inclusion of a wide diversity of knowledges might include the explicit acknowledgement of alternative perspectives, accounts, and theories of design (e.g., Afrofuturism; critical fabulations; craft-based accounts of practice engaging with materiality; queering, reforming, and de-familiarizing “known” practices through the eyes of another; the making of an anti-racist curriculum), activated through inclusion as core readings, extending or replacing elements of the traditional canon, and as a foundation for project briefs that include social responsibility.

5.2 Pathways

Design disciplines are rapidly evolving in response to both the pace of technological innovation and the increasing need for interdisciplinary and transdisciplinary engagement. This volatility has the potential to challenge traditional monolithic design pathways, while also stimulating the creation of new, potentially more versatile pathways. As anticipated by Buchanan’s four orders of design (Buchanan, 1995) or Krippendorf’s (2005) focus on semantics, the movement from sign and symbol systems and physical artifacts to interactions, experiences, systems, and discourses has prompted new consideration of what formal academic preparation in design and related disciplines should contain. Increasingly, it is clear that students do not pass through the same “gates” in the same order and the same time frame, and many current students desire social impact and value-centric reasoning in a wide range of industry contexts. How can we model and better describe this layered and converging and diverging set of pathways within one student; across multiple students with similar professional goals; across entire cohorts and programs?

To address pluriversal studio practice in relation to pathways, we may consider diversity across three exterior dimensions and one interior dimension. Exterior dimensions include: a) types of industry environments with defined organizational structures and philosophies

(e.g., digital agencies, consultancies, in-house agencies, embedded designers); b) types of industries which invoke particular kinds of problems to be addressed (e.g., healthcare, education, enterprise software, non-governmental organizations); and c) collections of skills that are recognized as coherent or related to a job role in an industry context (e.g., visual design, architecture, and industrial design as common traditional disciplines; UX generalist and product management roles as emerging and volatile disciplines). These exterior dimensions—complex as they already are—then interface with the student’s *design philosophy* (cf., Nelson & Stolterman, 2012). This philosophy invokes that student’s particular aspects of design focus and preparation, areas of passion and desire to be “in service,” prioritizing certain skills, abilities, and mindsets, and ultimately, the student’s integration of design with their own unique humanity and lived experience. If all of this diversity exists, how then can we support inclusive pedagogical efforts that support—rather than undermine—this emergent specialization in our students, acknowledging both current and potential future areas of diversity?

5.3 Instructional Moves

Demanding a pluralistic set of knowledges and pathways towards the development of competence also implies changes—perhaps radical alterations or replacements—of core studio instructional moves. While documentation of the “essence” of studio is only in its most emergent phases in the design education literature, I identify opportunities in three key areas: reworking critique practices to reduce power and increase student autonomy; making critical norms and values explicit in the discourses of studio; and considering the use of technologies and practices that empower new voices and reject ableist assumptions.

First, while recent scholarship has begun to address the normative infrastructure of critique practices, building upon the historic work of Anthony and Webster (e.g., Gray, 2013; McDonald & Michela, 2019; Wolford et al., 2021), the COVID-19 pandemic has provided insights into even more ways in which critique practices might be reworked and expanded to change power differentials and allow for new means of participation. Guidelines in art and design fields have begun to reject some of the power and barbarism of formal design juries (cf., Blythman et al., 2007), yet many other critique events are power-laden, only in ways that are more covert and structural. As one optimal edge case, design educators might consider how critique practices in many formulations could work towards Habermas’ “ideal speech situation”—where subjectivity and pluralism is assumed *a priori*, but the goal is not resolving or objectivating this subjectivity but rather reaching mutual understanding free from institutional or other forms of power. Thus, critique practices might be increasingly pluralistic both in form and in means of participation, with a primary goal of emancipation of the developing designer rather than a simple evaluation of student work.

Second, foregrounding critical norms and values in studio practices has the potential to reveal—and perhaps lead to the rejection—of characteristics which should have been long since discarded. Rather than embracing and extending the worst excesses of studio, often

bound up in ruthless competition, exclusionary review practices, and an embracing of “crunch” culture, how might inspection and reinvention allow for instructors and students alike to remake the studio in a way that engages feminist values of advocacy, care, participation, and plurality (cf., Bardzell, 2010)? Rather than a studio that constructs a dominant habitus in which students are enculturated through forcible, but often opaque, means, how might a plurality of such spaces emerge that engages students in relation to their lives experience on their own terms and in relation to their own knowledge and future pathway (cf., Gray, 2013)?

Third, given the increased digitalization of studio practices during the pandemic, building upon decades of work in online studio education (cf., Jones et al., 2019), how might technology aid the fuller participation of students that have traditionally been excluded? The use of digital technologies to augment or replace portions of traditional studio interactions may empower new voices and realign or even productively disempower existing voices—allowing perspectives from non-native speakers, the neurodiverse, and disabled to more fully be part of the studio discourse and culture. The pandemic shift also revealed a multiplicity of accessibility and ableist assumptions embedded in studio curricula that were revealed only when shifting modality. How might these revelations lead to lasting changes in studio practices that value multiple forms of legitimate participation, many ways of making and producing, and many pathways towards competence?

6. Conclusion

In this paper, I have outlined historic critiques of studio pedagogy through the lens of critical pedagogy, revealing opportunities to increase student autonomy and development, reduce institutional power, and identify new means of empowerment. Building upon a proposed shift from pedagogies dominated by fear to those characterized by emancipation, I articulate different potential hegemonies that traditional and future studio cultures might present and identify instructor and student roles within these hegemonic forms that can limit or increase agency, autonomy, and empowerment. I conclude by calling for a re-imagining of studio practices as pluriversal—a place where multiple worlds, sets of knowledge, and pathways can exist and be nurtured—revealing opportunities for expanding the knowledges, pathways of progression, and instructional moves that may increase the emancipatory thrust of the studio, informing future design education scholarship and studio practices.

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7. References

- Anthony, K. H. (1991). *Design juries on trial: The renaissance of the design studio* (p. 257). Van Nostrand Reinhold.
- Bardzell, S. (2010). Feminist HCI: taking stock and outlining an agenda for design. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 1301–1310. <https://doi.org/10.1145/1753326.1753521>
- Berry, A. H., Collie, K., Laker, P. A., Noel, L.-A., Rittner, J., & Walters, K. (2022). *The Black Experience in Design: Identity, Expression & Reflection*. Simon and Schuster.
- Blair, B. (2007). At the end of a huge crit in the summer, it was crap I'd worked really hard but all she said was fine and I was gutted. *Art, Design & Communication in Higher Education*, 5(2), 83–95. https://doi.org/10.1386/adch.5.2.83_1
- Blythman, M., Orr, S., & Blair, B. (2007). *Critiquing the crit*. The Higher Education Academy, Art, Design and Media Subject Centre.
- Boling, E. (2020). The Nature and Use of Precedent in Designing. In J. K. McDonald & R. E. West (Eds.), *Design for Learning: Principles, Processes, and Praxis*. EdTech Books. <https://edtech-books.org/id/precedent>
- Buchanan, R. (1995). Rhetoric, humanism and design. In V. Margolin & R. Buchanan (Eds.), *Discovering Design: Explorations in Design Studies* (pp. 23–66). University of Chicago Press.
- Cennamo, K. (2016). What is studio. In E. Boling, R. A. Schwier, C. M. Gray, K. M. Smith, & K. Campbell (Eds.), *Studio Teaching in Higher Education: Selected Design Cases*. Routledge.
- Costanza-Chock, S. (2020). *Design Justice: Community-Led Practices to Build the Worlds We Need*. MIT Press.
- Crismond, D. P., & Adams, R. S. (2012). The informed design teaching and learning matrix. *Journal of Engineering Education*, 101(4), 738–797. <https://doi.org/10.1002/j.2168-9830.2012.tb01127.x>
- Crysler, C. G. (1995). Critical Pedagogy and Architectural Education. *Journal of Architectural Education (1984-)*, 48(4), 208–217.
- DAP Collective. (n.d.). Design As Protest. Retrieved December 1, 2021, from <https://www.dapcollective.com/index>
- Darder, A., Torres, R. D., & Baltodano, M. (2017). *The Critical Pedagogy Reader*. Routledge.
- Dutton, T. A. (1987). Design and Studio Pedagogy. *Journal of Architectural Education*, 41(1), 16. <https://doi.org/10.2307/1424904>
- Dutton, T. A. (1991). The Hidden Curriculum and the Design Studio: Toward a Critical Studio Pedagogy. In T. A. Dutton (Ed.), *Voices in Architectural Education: Cultural politics and pedagogy* (pp. 165–194). Bergin & Garvey.
- Escobar, A. (2018). *Designs for the Pluriverse*. Duke University Press. <https://doi.org/10.1515/9780822371816>
- Forlano, L., Steenson, M. W., & Ananny, M. (2019). *Bauhaus Futures*. MIT Press.
- Freire, P. (1970/2000). *Pedagogy of the oppressed*. Continuum.
- Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration* (p. 402). University of California Press.
- Giroux, H. A. (2011). *On critical pedagogy*. Continuum International Publishing Group.
- Gray, C. M. (2013). Informal peer critique and the negotiation of habitus in a design studio. *Art, Design & Communication in Higher Education*, 12(2), 195–209. https://doi.org/10.1386/adch.12.2.195_1

- Gray, C. M., Parsons, P., & Toombs, A. L. (2020). Building a Holistic Design Identity Through Integrated Studio Education. In B. Hokanson, G. Clinton, A. A. Tawfik, A. Grincewicz, & M. Schmidt (Eds.), *Educational Technology Beyond Content: A New Focus for Learning* (pp. 43–55). Springer International Publishing. https://doi.org/10.1007/978-3-030-37254-5_4
- Gray, C. M., & Smith, K. M. (2016). Critical Views of Studio. In E. Boling, R. A. Schwier, C. M. Gray, K. M. Smith, & K. Campbell (Eds.), *Studio Teaching in Higher Education: Selected Design Cases* (pp. 260–270). Routledge.
- Jones, D., Lotz, N., & Holden, G. (2019). OpenDesignStudio: virtual studio development over a decade. In N. Börekçi, D. Koçyıldırım, F. Korkut, & D. Jones (Eds.), *Insider Knowledge, DRS Learn X Design Conference 2019*. <https://doi.org/10.21606/learnxdesign.2019.01083>
- Kharrufa, A., & Gray, C. M. (2020, May). Threshold Concepts in HCI Education. *2nd Annual ACM SIGCHI Symposium on HCI Education (EduCHI 2020)*. <https://educhi2020.hcilivingcurriculum.org/paper/threshold-concepts-in-hci-education/>
- Koch, A., Schwensen, K., Dutton, T. A., & Smith, D. (2002). *The redesign of studio culture: A report of the AIAS Studio Culture Task Force*. American Institute of Architecture Students.
- Krippendorff, K. (2005). *The Semantic Turn: A New Foundation for Design* (p. 368). CRC Press.
- Manzini, E. (2015). *Design, When Everybody Designs: An Introduction to Design for Social Innovation*. MIT Press.
- McDonald, J. K., & Michela, E. (2019). The design critique and the moral goods of studio pedagogy. *Design Studies*, *62*, 1–35. <https://doi.org/10.1016/j.destud.2019.02.001>
- Nelson, H. G., & Stolterman, E. (2012). *The design way : Intentional change in an unpredictable world* (2nd ed.). MIT Press.
- O’Leary, S. R., & Turner, B. (2020, May). Towards a Decolonized Future: Desettling HCI. *2nd Annual ACM SIGCHI Symposium on HCI Education (EduCHI 2020)*. <https://educhi2020.hcilivingcurriculum.org/paper/towards-a-decolonized-future-desettling-hci/>
- Osmond, J., Bull, K., & Tovey, M. (2009). Threshold concepts and the transport and product design curriculum: reports of research in progress. *Art, Design & Communication in Higher Education*, *8*(2), 169–175.
- O’Sullivan, N. (2019). Walking backwards into the future: Indigenous wisdom within design education. *Educational Philosophy and Theory*, *51*(4), 424–433. <https://doi.org/10.1080/00131857.2018.1476236>
- Rosner, D. K. (2018). *Critical Fabulations: Reworking the Methods and Margins of Design*. MIT Press.
- Scagnetti, G. (2017). A dialogical model for studio critiques in Design Education. *The Design Journal*, *20*(sup1), S781–S791. <https://doi.org/10.1080/14606925.2017.1353024>
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Basic Books.
- Schön, D. A. (1985). *The design studio : an exploration of its traditions and potentials* (p. 99). RIBA Publications for RIBA Building Industry Trust.
- Schultz, T., Abdulla, D., Ansari, A., Canli, E., Keshavarz, M., Kiem, M., Martins, L. P. de O., & J. S. Vieira de Oliveira, P. (2018). What Is at Stake with Decolonizing Design? A Roundtable. *Design and Culture*, *10*(1), 81–101. <https://doi.org/10.1080/17547075.2018.1434368>
- Siegel, M. A., & Stolterman, E. (2008). Metamorphosis: Transforming Non-designers into Designers. *Undisciplined! Design Research Society Conference 2008*, 378:1-13.
- Smith, J. M., & Lucena, J. C. (2016). Invisible innovators: how low-income, first-generation students use their funds of knowledge to belong in engineering. *Engineering Studies*, *8*(1), 1–26. <https://doi.org/10.1080/19378629.2016.1155593>

- Snyder, B. R. (1970). *The Hidden Curriculum*. Cambridge: Mass., Mit Press. <https://philpapers.org/rec/SNYTHC>
- Tlostanova, M. (2017). On decolonizing design. *Design Philosophy Papers*, 15(1), 51–61. <https://doi.org/10.1080/14487136.2017.1301017>
- Tunstall, E. (2013). Decolonizing design innovation: Design anthropology, critical anthropology, and indigenous knowledge. *Design Anthropology: Theory and Practice*, 232–250.
- Webster, H. (2006). Power, freedom and resistance: Excavating the design jury. *International Journal of Art & Design Education*, 25(3), 286–296. <https://doi.org/10.1111/j.1476-8070.2006.00495.x>
- Webster, H. (2008). Architectural education after Schön: Cracks, blurs, boundaries and beyond. *Journal for Education in the Built Environment*, 3(2), 63–74. <https://doi.org/10.11120/jebe.2008.03020063>
- Willenbrock, L. (1991). An undergraduate voice in architectural education. In T. A. Dutton (Ed.), *Voices in Architectural Education: Cultural politics and pedagogy* (pp. 97–119). Bergin & Garvey.
- Winchester, W. W., III. (2018). Afrofuturism, inclusion, and the design imagination. *Interactions*, 25(2), 41–45. <https://doi.org/10.1145/3182655>
- Wolford, C., Zhao, Y., Kashyap, S., & Gray, C. M. (2021, September). Critique Assemblages in Response to Emergency Hybrid Studio Pedagogy. *LearnxDesign: The 6th International Conference for Design Education Researchers*.

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