Steven Doctors
University of San Francisco

Historical Problematics of the Collaborative Divide

Collaboration is ubiquitous as a signifier of collective action in the contemporary discourse on inter- and trans-disciplinary practices. While this undoubtedly foregrounds the collective nature of architectural production — that is, architects do not produce buildings in isolation — in a quest to optimize such practices, the discourse tends to overlook historical problematics of collaboration relative to architectural identity and authority. In this paper, I examine these problematics as a framework for critically assessing the twenty-first century re-emergence of collaboration as a technologically-driven practice.

The general object of study here is a recurring discourse promulgated by architects since the late nineteenth century that assigned transformative attributes to collaboration with non-architect 'others.' Notwithstanding disparate efforts in academia and practice, realization of this transformative promise has repeatedly fallen short of its idealization. In the first half of this paper, I consider past motivations for the idealization of collaboration, mechanisms employed in its promotion, and barriers precluding realization of its transformative promise. In the second half, I theorize that absent critical consideration of these historical problematics, the twenty-first century re-emergence of collaboration as a transformative paradigm is bound to sustain the divide between idealization and realization, and between architects and non-architect 'others.'

I focus here on the discourse as it unfolded after the Second World War, when the so-called 'endless frontier' of scientific knowledge inspired a corporate embrace of rationalized methodologies. Taking a cue from their patrons and other fields inspired by technical rationality, architects similarly pursued systemization of the design process, while proffering collaboration as a unifying methodology. The ensuing discourse, characterized by competing theorizations on the interrelationship of art, science, nature, and technology, proved to be less about collaboration as technique — that is, how to collaborate — than an unrealized project to re-cast architecture in the image and authority of science-like professions now privileged by society.

SERGE CHERMAYEFF AND THE POST-SECOND WORLD WAR DISCOURSE

As a protagonist in this discourse, architect-educator Serge Chermayeff sought to transform the profession through its absorption into a unified field of design that, in collaboration with the sciences, would mediate amongst societal and environmental demands.[1] It is here, in the working relations between a unified design field and the sciences, that Chermayeff's most articulate propositions for collaboration may be located: collective over individual interests; scientific reasoning and process over typology of form; and the obliteration of boundaries between design professions long separated in academia and practice.

Chermayeff's transformative notions flowed from two principal hypotheses. First, that considerations of the human condition were inseparable from the state of the environment.[2] Secondly, that to play a mediating role in that equation, architects would shed the outmoded training, practice, and identity of a pre-industrialized past in favor of a scientific paradigm.[3] While architectural practitioners had indeed forged rationalized design processes responsive to the scale and complexity of post-war growth, these new practices, Chermayeff contended, continued to value "the individual, special, expressive and localized," while scientific advancements thrived on the "collective, typical, anonymous, universal in character and function."[4]

Chermayeff's interest in the collective was undoubtedly influenced by his own engagement from the 1930s onwards with an array of professional associations nurturing "free interchange" on architectural matters. Each of these groups assembled with great enthusiasm for the potential of collective effort. Each ultimately collapsed, as Chermayeff observed, from internal conflicts between "collective intentions and the individual concern with the immediate present."[5] These diverse experiences nonetheless grounded Chermayeff in a collective approach to decision-making, akin to the "communica-

tive transparency" – to borrow from Reinhold Martin – motivating contributors to the Bulletin of the Atomic Scientists after the Second World War: an open exchange of ideas within the scientific community, and between scientists and society to safeguard against misappropriation of scientific knowledge for destructive purposes.[6]

Chermayeff's first significant public sentiments on collaboration appeared in a series of articles on air raid precautions.[7] Linked with overt expressions of patriotism, he proffered collaboration as a means of transparent communication between society and government, suggesting that architects would overcome historical disciplinary boundaries to closely collaborate with scientists and technicians in the public interest.[8] Despite this advocacy, the "responsible" role Chermayeff sought for architects failed to materialize. Indeed, as Pencil Points editor Kenneth Reid observed at the time, architects were marginalized in favor of engineers who garnered the majority of war-readiness commissions.[9] This exclusion of architects and their characterization as "impractical esthetic dreamers" foregrounds an epistemic authority, following Thomas Gieryn, granted to the sciences and science-like professions.[10] It was the quest to gain such epistemic authority for architects that would become foundational to Chermayeff's subsequent efforts to transform architectural education and practice.

These efforts unfolded with the evolution of Chermayeff's own teaching career. At Brooklyn College in New York, the Institute of Design in Chicago, at Harvard, and subsequently at Yale, Chermayeff pursued pedagogical strategies in support of an integrated field of environmental design, and to embed into that field scientific principles and collaborative methodologies. At the Institute of Design, he refined a Foundation Course emphasizing interrelationships amongst multiple fields of endeavor. For Harvard, he crafted a first-year course of students and instructors from architecture, landscape architecture, and planning to emphasize the interrelatedness of their disciplines. Later, at

Yale, he formulated a Master Class on urban design premised on collaboration amongst students, faculty, and outside specialists.

For all of his talk on organic unity, however, Chermayeff saw collaboration as ultimately ineffective against the individualistic tendencies of specialization, which mask the underlying collective nature of architectural production. Rather than promote collaboration amongst the design professions, Chermayeff instead called for erasure of disciplinary boundaries in what he saw as a single set of concerns: environmental design.[11] Intriguingly, though, beyond the carefully prescribed boundaries of environmental design, Chermayeff continued to promote collaboration amongst a lofty circle of synthesized architect-designers and their scientist-technician colleagues. Through collaboration and "continuous and essential research," he aspired for architects to work closely with scientists, to evolve as "well integrated functionaries in the field as a whole . . . within which social purpose, technical means and pleasure content are organic parts."[12] Collaboration in this context was no longer the physical outcome of architectural production as with earlier historicist or competing modernist paradigms. Chermayeff's iteration instead de-coupled collaboration from physical manifestation and re-constituted it as a rationalized, stylistically-neutral process, thus anticipating by several decades its twenty-first century digitally-fueled iteration.

Chermayeff's transformative propositions encountered barriers to realization, however, not the least of which was that his aspirations remained largely confined to academia. Operating on the other side of a deepening academia/practice divide, architectural practitioners in this post-war era were already consumed with irreconcilable demands: public outcry for attention to dire societal exigencies, and corporate demands for alternative project delivery strategies to reduce the risk proposition of architectural production. In this highly charged and competitive environment, architects remained more concerned with pragmatic matters of eco-nomic survival than with Chermayeff's lofty ambitions for epistemic authority.

A second barrier was the absence of consensus on collaboration, ostensibly a prerequisite for collective action. While Chermayeff's objective at the Institute of Design, for instance, was to "bring the original intention of Gropius up to date," the two architect-educators held significantly different positions on collaboration.[13] Gropius's oft-repeated twelve-point prescription for architectural education prepared students to serve as "coordinators" of the multiple disciplines engaged in architectural production, suggesting an assertion of the architect's authority over allied professionals.[14] By contrast, Chermayeff rejected presumption of the architect's dominance in collaborative undertakings, viewing the architect instead as a critical but not necessarily dominant participant.[15]

These conjoined issues of identity and participation contributed to a further barrier to Chermayeff's transformative aspirations for collaboration. Notwithstanding the collective character of his propositions, there was an exclusionary aspect that relegated engineers to a secondary role. Chermayeff, for one, had no doubt that engineers played an important role in the built environment but, as specialists, they were not in his mind the architect's equal.[16] This exclusionary aspect of Chermayeff's propositions -- the engineer was neither collaborator nor invited to join under the broad umbrella of environmental design -- not only differed from Gropius's teamwork-collaboration allowing for the participation of "engineers, manufacturers, contractor," it suggests that when Chermayeff marginalized the engineer, it was both an instinctive re-enactment of the academic studio and a pragmatic response to a perceived disciplinary threat.[17]

THE TWENTY-FIRST CENTURY DISCOURSE

This foregrounding of disciplinary boundaries brings us forward to the twenty-first century,

and to the re-emergence of collaboration as a transformative paradigm. There are two principal problematic aspects here. First, the contemporary architectural discourse remains intriguingly disconnected from its own past, instead residing within and drawing inspiration from a broader societal discourse that uncritically embraces collaboration as an innovative practice. Secondly, underlying both the broader societal and architectural discourses is a faith in the seemingly limitless potential of technology to realize the collaborative ideal.

To elaborate, collaboration in the broader societal discourse shifts from a bounded social practice — that is, face-to-face relationships organized along class and professional lines —to a host of practices more often than not mediated by technologies promising connectivity across spatial, temporal, cultural, and disciplinary boundaries. Despite nagging uncertainties about the efficacy of technology, this "techno-romanticism," as Richard Coyne labels it, fuels the belief that 'true' collaboration may be at hand, that humans may someday be, as Kevin Kelly notes, "cross-linked" and "woven" together much as we aspire for once isolated pixels of data.[18] This metaphor of digital connectivity is evident, for instance, in the entertainment and media industries, where the audience is seen not only as consumers of visual material but as interactive participants in its creation.[19] Equally so is the highly variable nature of collaboration in the artistic realm, which envelopes, as Harold Cotter observes, countless structural and methodological strategies including "couples, quartets, teams, tribes and amorphous cyberspace communities."[20] Most notably, collaboration is pervasive in the corporate mentality as a signifier of 'best-of-practice,' ubiquitously employed with tripartite exhortations exemplified by Cargill's "collaborate> create > succeed" tag line.

Of greater concern is that the technology-collaboration nexus underlying this discourse — and its overt suggestion of inclusiveness — bears consequentially on the architectural discourse, which operates on the premise that

vast offerings of applications for design communication, information exchange, and visualization enable collaboration as a transparent and egalitarian practice. This paradigm extends to tripartite architectural tropes modeled on the broader discourse — "listen, collaborate, create," "question, collaborate, create," "advance, collaborate, build" — that mimetically employ collaboration as a marketable signifier of inclusive practices. As Daniel Friedman observes, however, this optimistic paradigm presumes the existence of a practice structure and methodology suitable for collaboration, yet realization of such optimum conditions in the fragmented design and construction industry would require, as Yehuda Kalay notes, "techno-organizational change" of the underlying structural and procedural nature of architectural production.[21]

Despite uncertainty the industry is open to such transformation, the American Institute of Architects seeks to codify collaboration through the promotion of Integrated Project Delivery (IPD), intended to "leverage" through advanced technologies the "collective capabilities" of clients, architects, consultants, contractors, and suppliers.[22] The promotional strategy extends to the latest generation of AIA contract documents, employing a vocabulary suggestive of shared responsibilities and liabilities paired with consensus-based decision-making and collaboration.[23] The AIA glossary behind the new IPD rhetoric includes an entry for collaboration, but its definition — a "process or mind-set by which all integrated parties involved in a project are willingly doing whatever it takes to work together"— offers scant pragmatic guidance to practitioners, while framing collaboration as the sacrifice of individual motivations in favor of collective interest.[24] The intrinsic quandary here is that if collaboration is indeed a process, what are its means and methods? If, alternatively, collaboration is a mind-set, what are the conditions necessary to attain it?

As Chermayeff discovered from his own activities, there exist a host of unpredictable and often irreconcilable human considerations that under-

mine collective action regardless of signifier employed. These are the motivations, objectives, temperaments, experiences, methods, organizational structures, and politico-economic considerations that thwart realization of collaborative theorizations such as Jurgen Habermas's "ideal speech situation," Thomas Gieryn's "boundary-work," Susan Leigh Star's "boundary objects," and Peter Galison's "trading zone."[25] If, as Richard Coyne offers, basic communication between individuals encounters a "perilous territory of multiplicity and ambiguity," then communication across disciplinary boundaries would, as Chermayeff suggests, render the transference of meaning that much more difficult.[26]

This is the point at which digital connectivity as metaphor and model for collective action faces its biggest challenge, for pixels of data have neither personality nor emotion, neither ulterior motive nor conflicting priorities. As Howard Rheingold notes, technology may indeed facilitate the connecting of humans through "collaborative" endeavors such as document generation and modification, but it does not necessarily correlate to "consensus decision-making."[27] Linda Carroli adds that critical distinctions between physically proximate communities and those connected digitally preclude mere transference of the commonality associated with face-to-face collaboration to a virtual context.[28] She concludes ultimately that in the "fragmented space" of the digital world, "consensus is impossible and irrelevant, a utopian ideal."[29] If Rheingold and Carroli are correct, then the unbounded, technologically-fueled connectivity foundational to the twenty-first century iteration of collaboration may be as ineffectual against entrenched disciplinary and procedural barriers as Chermayeff encountered in his own quest to alter the identity and epistemic authority of architects through collaboration.

CONCLUSION

From one perspective, this recurring discourse on collaboration captures the essence of archi-

tecture as a profession, a continuous re-fashioning of identity in response to fluid disciplinary boundaries.[30] Indeed, much as with Ernst Gombrich's interest in moments of rupture as most expressive of culture or Paul Rabinow's attention to "irruptive events" as markers of substantive societal change, the relational processes and tensions at disciplinary boundaries can be most illuminating about the core characteristics of a profession.[31] From another perspective, the discourse suggests that the identity of the profession may be irreconcilable with collective action as idealized past and present. Following Magali Sarfatti Larson, lacking the autonomy and capacity to monopolize its field of action, the architectural profession continues to a great extent to be defined by what it is not; it is reliant upon the continued presence of the very boundaries that collaboration ostensibly seeks to erase or blur.[32] For, absent these boundaries, the architect's identity — and the co-mingled issue of authority — loses its disciplinary clarity.

The implication here is that given the historical problematics of collaboration relative to architectural identity and authority, the contemporary discourse on collaboration — intent as it is on easing, if not obliterating, spatial, temporal, personal, or disciplinary boundaries — warrants closer scrutiny. The unbounded collaboration suggested by the discourse, coupled with free-flowing digital networks that allow, for instance, clients to directly access product specifications or interact with contractors, strains the architect's ability to participate in that flow while retaining control of the process and outcome of architectural production. Any effort to produce the opposite condition — bounded collaboration — would be equally problematic, for it would prompt uncomfortable questions from the past as to how it might be delineated. Would engineers once again be excluded, as Chermayeff proposed? What of clients, contractors, and the spectrum of non-architect 'others' such as business partners, lovers, photographers, critics, and curators that Beatriz Colomina foregrounds in the production and representation of architecture?[33]

To conclude, I suggest that beyond the innumerable challenges of optimizing communication across disciplinary boundaries, architectural aspirations for collaboration encounter a paradox: while collaboration is a persistent reminder in the professional consciousness that architecture is not produced in isolation, it nonetheless is oppositional to the normative hierarchical and procedural realities of practice that privilege architectural identity and authority. Compounding this paradox is that in the endless quest for an idealized professional identity and authority, architects render difficult the alignment of individual/collective motivations necessary for cohesive action with non-architect 'others.' Wary of transformations of practice that might diminish this professional ideal, architects have historically promoted collaboration not to ease disciplinary boundaries, but to re-assert or re-draw them in service of architectural identity and authority. Given these historical problematics, a challenge for the contemporary discourse — and for this conference in particular — is to reconcile architectural aspirations for identity and authority with parallel efforts to nurture inter- and transdisciplinary practices through collaboration. Absent reconciliation, such efforts may similarly succumb to the collaborative divide between idealization and realization, and between architects and non-architect 'others.'

ENDNOTES

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