

Pedagogy With and Against the Flow: Generational Shifts, Social Media, and the Gen Z Brain

“Philosophical, political, and scientific truth have fragmented into proliferating swarms of ‘little’ truths appearing and disappearing so fast that ascertaining whether they are really true is impractical if not altogether impossible.”-Michael Speaks¹

GABRIEL FUENTES
Marywood University

INTRODUCTION

In *The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes our Future; Or, Don't Trust Anyone Under 30*, Mark Bauerlein—English Professor at Emory University and former Director of Research and Analysis at the National Endowment for the Arts—argues that the cultural and technological forces of the Digital Age are turning America's young into its dumbest generation, an intellectually anemic generation bred by social media to engage *each other* rather than aspiring to new modes of higher learning and deeper levels of historical/cultural consciousness.² Generation Z'ers (Gen Z)—a term used to designate the post-Millennial, digitally integrated demographic born roughly after 1991—navigate their world ephemerally and *horizontally*, immersing themselves, Bauerlein argues, in a trivial peer-to-peer ecosystem of online gaming, adolescent dialog, and pop culture at the expense of more enriching activities *outside* of their social network, i.e. reading philosophy, history, or, for that matter, writing complete and coherent sentences. Rather than building (on) knowledge—philosophical, political, and scientific truth—Gen Z'ers merely retrieve and redistribute bits of information, rarely understanding (much less interrogating) their broader implications.

Contra Bauerlein, historian, economist, and demographer Neil Howe argues that these attributes make Gen Z the next great generation. They are intellectually agile, have a deeper sense of community, and are motivated to trigger political change from *within* the system. Interested less in moral and philosophical complexity, authenticity, and “original” culture, they have developed (a capacity for) a new kind of forward-looking *derivative intelligence* that sheds historical baggage and privileges pragmatic *doing* over deep *thinking*.

Although indirect, Bauerlein's and Howe's quasi-political debate recalls recent debates within architectural discourse, namely a generational tendency to pit architectural theory (presumed to be high-browed thinking from above)

against architectural practice (presumed to be pragmatic doing on the ground). Ideological propensity notwithstanding, the cultural, technological, and psychological shifts they identify among youth necessarily problematize both design teaching and learning. But maintaining such a hard distinction between deep thinking and pragmatic doing is counterproductive to effectively teaching Gen Z architecture students, failing to leverage their horizontally-wired brains and handicapping their ability to navigate an increasingly fast-paced and flattened world as intelligent and productively critical designers; that is, as designers capable of calibrating the degree of their negation and/or affirmation of the status quo. If we take on architectural pedagogy as a project, we must learn to operate as double-agents, to work with and against the flow, to leverage Gen Z's best tendencies while filtering out their worst ones. Before projecting architecture's discipline onto them (in all its complex histories, methodologies, and ideologies) we must learn to operate both *within* and *against* Gen Z's collective milieu.

This paper constructs that milieu as a generational constellation of demographic, historical, and techno-social forces that frames our students' attitudes, abilities, and tendencies and unpacks some of its implications for architectural design pedagogy.

GENERATIONAL SHIFTS

In *Generations: The History of America's Future, 1584 to 2069*, Howe and William Strauss—historians and fathers of contemporary generational theory—claim that generations mature in four phases (childhood, young adulthood, midlife, and elderhood) over a span of 80–100 years (roughly one human life).³ With a birth span of 20–25 years in between, each generation manifests a collective persona grounded in their particular location in historical time and space. That is, each generation matures *within* and operates *upon* their collective milieu—that kaleidoscopic constellation of events, trends, and technologies that defines their values and system of meaning. Within a gradient of effect, their collective persona—peaking during young adulthood and midlife—lends them a collective agency forceful enough to challenge (although not always overturn) the strictures of previous generations while constructing the milieu of the next.

The American milieu has been defined over the last century by a constellation of 7 different generations: 1) the Lost Generation (born 1883–1901), 2) the G.I. Generation (born 1902–1924), 3) the Silent Generation (born 1925–1942), 4) the Baby Boom (born 1943–1960), 5) Generation X (born 1961–1981), 6) Generation Y or The Millennials (born 1982–1991), and 7) Generation Z (born 1992–2009).⁴ As the offspring of late-Generation X/early Generation Y and the first generation born into an integrated, fluid, and globally connected world, Gen Z'ers are *Digital Natives* of an eco-informational society. Their milieu is defined by the effects of technology and network culture layered onto the institutional structures left in place largely by their Silent and Boomer elders. Hence while their connectivity offers them all of the advantages of being the most global generation in history, the knowledge economy also links them to a dark world of dysfunctional politics, global terrorism, economic uncertainty, social inequality, corporate corruption, and environmental crisis, forces that have increasingly dominated architectural discourse, education, and practice over the past few decades.

As architectural educators we cannot ignore the effects of these realities and forces on youth culture and, in turn, youth culture's influence on architectural theory and practice. Currently entering young adulthood, the first wave of Gen

Z students have already graduated high school and have begun to affect a range of social and artistic platforms, from politics to education to pop culture. In fall 2013 they began filling our first year design studios. And because their collective persona and location in history differs radically from ours (usually but not always, their Gen X and Baby Boomer teachers), we must carefully avoid the “pedagogy of the cult;” that is, our tendency to teach them the way we were taught. Just as architectural culture has changed radically over the past two decades, and just as our students’ social-cultural landscape has also changed, so too should architectural education adapt without sacrificing neither the discipline’s core nor its professional responsibility to society at large.

Since the late 1990s, a strengthening generational conflict has gained momentum within architectural discourse centered around the influence of “theory” and “criticality” on education and practice, a conflict that our young students will enter academically and eventually mediate professionally. In “After Theory,” written for *Architectural Record’s* June 2005 issue, Michael Speaks—architecture critic, professor, and dean of Syracuse University’s School of Architecture—attacks architectural education’s failure to “recognize the fundamental nature of the challenges confronting architecture in a world increasingly dominated by technological change and marketization,” insisting that while schools have adequately instilled digital competency, they have “largely failed to develop an intellectual culture that would enable students to make the best use of these skills in a marketplace that puts such a high value on innovation.”⁵ Theory, he claims, handicaps innovation by advancing old Enlightenment ideals of ultimate truth and by splitting *thinking* from *doing*. He asserts that “manifestos guide political action; that architectural theory guides architectural practice.” In a *post-theoretical* world, architectural theory must give way to pragmatic frameworks capable of *engaging* our market-driven world horizontally rather than *resisting* it from above via anachronistic models of thinking (e.g. Deconstruction or Marxism). Architecture must operate, as Stan Allen writes, “*in and on the world,*” not as commentary *about* the world, as if both modes were mutually exclusive.

To their credit, both Speaks and Allen (early-Gen X’ers?) recognize that architecture has failed to adjust to a cultural shift that David Harvey calls *flexible accumulation*—a mode of capitalism that resists the long-term and large-scale rigidity of industrial capitalism (read G.I., Silent, and Baby Boomer modernism)—by operating flexibly and ephemerally within the patterns and processes of contemporary network culture. Such practices, as Michael Hardt and Antonio Negri argue in *Empire*, mark a transition from a *disciplinary society* to a *society of control*, one that leverages the biopolitical as both the source and site of innovation.⁶

But while otherwise sharp, Speaks’s argument for “post-theoretical” practices is neither “anti-theoretical” nor “post-critical” (a term applied to him by George Baird that he, in any case, denies).⁷ To be sure, Speaks “resists, negates, and attempts to create alternatives” to the established modes of architectural thinking and practice promoted by K. Michael Hays and Peter Eisenman. In other words, he is not *acritical* but rather *critical of a particular kind of criticality*.⁸ In his *theory of atheoretical practice*, architecture engages the world affirmatively by resisting resistance (*Oppositions* anyone?).

Enabled by digital technology and a strengthening collective force, Gen Z is (or will be) *affirmatively* and *productively* critical as opposed to narrowly negative; that is, rather than searching for the unattainable (utopian) essence of

architecture through negative dialectical strategies that resist capitalism and attempt to overturn it—i.e. the Neo-Avant-Garde’s Autonomy Project—they (will) opportunistically carve out niches within society itself. In other words, their energy is (will be) *in the making* of new worlds (structures, systems, institutions, practices, etc.) from the bottom up, working innovatively, as Speaks argues, with “the existent (capitalism included) but unknown in order to discover opportunities for unpredictable design solutions.”⁹ They will do this, not necessarily by desire alone, but also by virtue of their place in history.

HISTORY INSIDE-OUT

In *Millennials Rising: The Next Great Generation*, Howe and Strauss predicted that, similar to the G.I. Generation of World War II, the Millennial Generation (according to some, a generational constellation of Gen Y and Gen Z) would be (or manifest traits of) heroes and rebuilders during America’s next crisis age, which they have since claimed was triggered by the economic recession of 2008.¹⁰ More numerous, affluent, educated, and diverse than previous generations, this generation, they argued, would recast the Baby Boomer’s narcissistic emphasis on talk over action and Generation X’s youth image of free-agency and alienation with a range of social habits that emphasize collaboration, modesty, kindness, good conduct, ethics, and social justice. They based their prediction on a scholarly study of Anglo-American history that reveals cyclical patterns and generational archetypes. If history spawns generations, and generations make history, they argue, then both form a symbiosis between time and life. And if one is seasonal, the other must also be. In other words, it has all happened before and it will all happen again.

In *The Fourth Turning: An American Prophecy—What the Cycles of History Tell Us About America’s Next Rendezvous with Destiny*, Howe and Strauss argue that humans have theorized time in three ways: 1) chaotically in which history unfolds randomly, 2) cyclically in which history repeats and resets itself structurally in direct connection to nature (i.e. the cosmos, etc.), and 3) linearly in which history exists outside of nature and moves forward along a trajectory with an absolute beginning and end.¹¹ Privileging the latter, the modern west crafted a worldview of society as rational and self-determining, one capable of altering “destiny” and crafting a “new” future in the name of progress. Their system of meaning was defined in many ways by Ford’s assembly line, which transcended the factory to inform the political, economic, and cultural structures of modern society. Social development was controlled scientifically and quantitatively through rationalism and technology (from the mechanical clock to the mass production of food to environmental controls) and society defined their values along specific moral and material goals. “Originality” and “authenticity” validated the ideals of “unprecedented” change (hence the early Modern Movement’s obsession with a “clean break from the past”).

While such a “modern” view of time still defines much of our social, cultural, and economic practices today, Howe and Strauss claim that, in reality, (social) history unfolds cyclically in response to generational patterns and conflicts. In other words, HISTORY—in all its socio-ecological complexities—is ultimately rhythmic and seasonal. It moves forward and backward in small circles yet eventually loops back onto itself in order to preserve the “natural” order of things.

The structure that binds these historical rhythms is the *saeculum*, an ancient Roman term used to define a long human life or a natural century.¹² Within

each *saeculum*, Howe and Strauss argue, societies turn at least four times in line with both the life-phase shifts of current generations and the birth of new ones, roughly every 20-25 years. Each generational turning is akin to a climactic season in a four-season cycle with two extreme periods (summer and winter) and two mild ones (spring and fall). And because we can rely on the certainty of seasons, and yet no two seasons are exactly alike (i.e. no two identical winters) HISTORY always *resets* itself (meta) structurally without ever *repeating* itself particularly.

Hence every generational turn brings significant and predictable changes in collective moods and attitudes as generational constellations re-shift and current generations compensate for the perceived excesses of older ones (particularly the one currently in midlife). Howe and Strauss have characterized each turning along with their most influential generational archetype as follows:

- First Turnings (mild springs) are *High Periods*, a time when new civic structures replace old values, collectivism is strong, and individualism is weak. The generational archetype coming of age is the *Artist*, born during a crisis and known for their adaptation and conformity. (e.g. Silent Generation)
- Second Turnings (extreme summers) are *Awakening Periods*, a time when youth are volatile and critical of the civic and institutional structures of previous generations. The inner (spiritual) world is built up while the outer world is threatened and attacked. The generational archetype coming of age is the *Prophet*, born near the end of a crisis and known for their fervor and antipathetic confliction. (e.g. Baby Boomers)
- Third Turnings (mild falls) are *Unraveling Periods*, a time when civic/institutional structures are at their weakest (buckling under the pressures and attacks of the previous turning) and individualism peaks. The generational archetype coming of age is the *Nomad*, born during an Awakening and known for their alienation and self-interested pragmatism. (e.g. Generation X)
- Fourth Turnings (extreme winters) are *Crisis Periods*, a time of major social change, collective restructuring, and civic / institutional rebuilding. The generational archetype coming of age is the *Hero*, born after an Awakening and known for their civic-mindedness, energetic optimism, and collaborative spirit. (e.g. G.I. Generation and Gen Y/Gen Z)

According to Howe's and Strauss's generational theory, Gen Z is *Hero* generation located in the Fourth Turning Crisis of the Millennial Saeculum, the lineage of which began in the U.S. with the American High (First Turning, 1946-1964), transitioned to the Consciousness Revolution of the late 1960s and the Culture Wars of the 1980s, 90s, and early 2000s (Second and Third Turnings, respectively) before transitioning to our current Global Financial Crisis Period (2008-2029?).¹³ As the generational constellation continues to shift (i.e. as Prophet Boomers replace Artist Silents as elders, Nomad X'ers replace Boomers in Midlife, and Hero Z'ers replace X'ers in young adulthood), the Fourth Turning is predicted to host significant changes to our civic / institutional structures as the dot.com Boom of the Roaring 90s fade into memory and Z'ers rebuild the social systems they deem broken.

Architecture, of course, is not immune to these generational shifts. Within architectural culture—that complex synthesis of theory, practice, and education—each turning has generated strong ideological shifts, from high modernism (first), to critical early postmodernism (second), to anti-foundational late postmodernism (third), to early 21st century realism, materialism, and pragmatic idealism

(fourth). And while critics of cyclical history argue against the cleanliness of its symmetry (and perhaps rightly so), such historiography—that is, historical analysis through generational theory—helps to pry open the fissures of Gen Z’s collective milieu and situate them within contemporary culture at large, architectural culture in particular, and the architectural curriculum specifically. Digitally-driven and socially motivated, their abilities, attitudes, and tendencies are both educational opportunities and challenges.

THE GREATEST GENERATION, THE DUMBEST, OR BOTH?

I believe I drank too much wine last night at Hurstbourne; I know not how else to account for the shaking of my hand today. You will kindly make allowance therefore for any indistinctness of writing, by attributing it to this venial error.
- Jane Austen

Thanx for ur txt last night. ended up gettin totaly maggots n my hands r still shakin dis mornin so if any typos thats y. - Jane Austen via text message.¹⁴

Gen Z is grounded in the digital. Hence unlike their X’er and Boomer counterparts, their angst does not stop at discourse. According to educator and writer Marc Prensky, the digital communication tools available to today’s youth are not as remarkable in themselves as they are in their capacity to enable.¹⁵ In other words, their inherent programmability lends youth the ability to channel mass critique toward collective action. In “The Death of Command and Control?,” he argues that today’s youth, influenced by unprecedented changes in digital technologies, can radically shift our core concepts of democracy and leadership *from within* as their collective agency strengthens and expands. “Hacking” the systems once deemed closed—from corporate and political leadership to education, pop-culture, and indeed architectural practice—they are (re)designing and/or supporting the very software that enables large-scale institutional change. The tools to “make things happen,” in other words, are in their hands, and they know how to use them...or, more importantly, *code* them.

For Gen Z, *difference*—that poststructuralist term evoked by Gen X in the name of anti-foundational individuality—is muted within ubiquitous digital networks. They categorically reject badge branding and avoid *exclusive* social cliques that celebrate individual difference over collective individuality. Rather, their tendency is to exploit social media networks *inclusively* as platforms for creating and sharing content horizontally. They are proactive curators and uploaders; rather than use their individuality as a critical weapon to escape the system, they seek validation from the system itself for their opinions, ideologies, and agendas (in the form of Facebook “likes” and Twitter “followers” at one end of the spectrum and aggressive political reform on the other). As the Occupy Movement and the Arab Spring have recently shown, their ability to “hack” into the system can have powerful effects.

For architectural culture, this has significant implications. Aside from shifting attitudes toward the subjects and objects of architectural theory (a renewed emphasis on urbanism, participatory practice, parametricism, object-oriented philosophy, post-criticality, and post-theory to name a few), architectural practice itself is changing as it scrambles to adapt to the complexities of a networked and globalized world. Advances in communications, building, and environmental technologies coupled with a strong sense of entrepreneurship are enabling fresh architecture graduates to transform the analog document-driven business models of their Boomer elders into digital data-driven models capable of processing

multiple layers of information and projecting the effects of their design action across multiple scales.¹⁶ In the process, generational conflicts arise as older generations remain “stuck in their ways” or struggle to find meaning in what they perceive to be blatant hyper-optimization over reflective iteration. Privileging the outer world over the inner one, they lament, the new generation has the public good at heart but is essentially dead inside.

This generational conflict affects the academy too. Walking to the city subway with a colleague after a long studio session, I was struck by his dismay at the status of “this generation of students.” Engaged in a lively studio critique that day, he was consumed by a lengthy discussion with a student about the “algorithmic potential of moiré patterning on urban architecture.” “I’ll take a Mondrian painting,” he said with obvious frustration, “were he moved a line a quarter of an inch to the left or thickened a line at the right place by one-sixteenth in order to gain visual clarity over 1,000 different moiré patterns!” Trained architecturally in the Bauhaus tradition and peaking as a teacher and designer during the Consciousness Revolution, my Boomer colleague was interested in the *visual/compositional meaning of architectural form retrospectively*; his Millennial/Gen Z student, on the other hand, was interested in the *potential effects of urban and social relationships on the architectural object*. One wanted the formal clarity attained through slow, deep, and disciplined thinking; the other wanted the programmatic effects triggered by fast cycles of flexible action and immediate verification.

What he failed to understand was that unlike hyper-reflective Boomers who grounded themselves passionately inside architecture’s disciplinary strictures searching for autonomous meaning, or alienated X’ers which contaminated those same strictures with a plethora of multi-disciplinary and anti-foundational theories, Gen Z, for better or worse, is a *platform generation* whose system of meaning is in constant flux precisely because it is both grounded pragmatically in the world (socially, physically, economically, etc.) and digitally filtered. As Mark Wigley pointed out recently during an hour-long debate at Columbia University with Peter Eisenman regarding the status of “ground” in architecture, “this generation is grounded in the digital,” not, as Eisenman would have it, in (the questioning of) the metaphysics of presence. That same night he humorously expanded:

(Today)...kids use their iPads before the age of two, which means that they use it as their primary interface before they use the toilet...and when they do use the toilet there is probably some iPad app saying...‘well done!’ ...for this generation, input/output issues are digital first and somewhat strangely physical second.

He continues:

...the concept of ‘ground’ has moved into the digital...(hence) it is more true to say that a building today stands on the digital platforms with which it was conceived than on the (actual) site. Or to restate that same point, digital platforms ARE the site; buildings are literally constructed in the space of digital transactions, a version of which could be dropped onto what we used to call a (physical) site...¹⁷

With obvious gaps in his logic, Wigley claims that today’s generation filters the physical through the digital and vice versa in a kind of double-grounding. For design faculty, this problematizes and challenges conventional notions of both place and making (and, of course, place-making), for both terms—rather than remaining grounded in physical actuality (i.e. an actual place physically made over a linear and

quantifiable timeframe)—are interlaced with digital and ephemeral connotations; they become products of both slow linear thinking and fast non-linear action.

SOCIAL MEDIA AND THE GEN Z BRAIN

The Gen Z brain, in fact, is hardwired for speed, flexibility, customization, and collaboration—useful qualities for a “hero” generation charged with rebuilding the civic and institutional structures left behind by their Boomer elders but also challenging to those charged with building them up as the reflective and productively critical designers that will do it. According to Katherine Savitt, Gen Z has *Acquired Attention Deficit Disorder* (AADD), chronic mass distraction triggered by constant immersion in multiple media platforms simultaneously (texting while Facebooking while YouTubing while eating while studying, for example).¹⁸ And while they have an unprecedented ability to collect and process large quantities of information at lightning speeds, AADD handicaps their ability to process small bits slowly and critically. In other words, as curators of a content-driven world, they can find answers quickly (or find the quick answer) yet struggle to generate meaningful questions. Digital speed supplants cognitive slowness.

In *iBrain: Surviving the Technological Alteration of the Modern Mind*, authors Gary Small and Gigi Vorgan argue that digital technology has radically altered the way we think and behave, that it has affected both our outer and inner worlds (social and cognitive).¹⁹ Some psychologists agree. According to Maryanne Wolf, digital media doesn’t simply affect thinking; it becomes a way of thinking that structures our cognitive ability to retain and process information. “We are not only what we read,” she says, “we are how we read.”²⁰ Similarly, in the article “Is Google Making Us Stupid?” author Nicholas Carr expresses concern with his own reading and thinking patterns. “I’m not thinking the way I used to think,” he says. “The deep reading that used to come naturally has become a struggle...and what the (inter)net seems to be doing is chipping away my capacity for concentration and contemplation.”²¹ Media and technology, he worries, supplants his reflective faculties with the instant gratification of efficiency and immediacy. It also handicaps his ability to formulate and retain knowledge.

Studying the implications of social media on American youth, Bauerlein argues that while digital culture offers unprecedented access to historical, scientific and artistic knowledge, America’s young—those 18–23 year-olds entering the most crucial intellectual stage of their lives and having unlimited access to such vast knowledge-base—are the dumbest in history; that is, despite every opportunity to cultivate and satisfy intellectual curiosity, their intellectual habits have shown otherwise, declining steadily over the last two decades.²² Not coincidentally, this decline in youth intellectual culture has paralleled the increasing influence of social media in all aspects of their lives. As America’s young has immersed themselves in digital culture, Bauerlein argues, they have become overly absorbed with peer-to-peer relationships at the expense of activities that build higher knowledge. In a live debate with Neil Howe that aired on C-SPAN in 2008 he puts it this way,

While we see improvements in behavior, improvements in ambition, improvements in course time and college attendance and AP courses, we do not see a corresponding improvement in knowledge and skill levels and intellectual habits (which continue to deteriorate). And the paradox is... WHY? My answer is this: The Digital Age has come about...And digital tools have entered young people’s lives in an avalanche; they are incredibility

ENDNOTES

1. Speaks, Michael. “Design Intelligence: Part 1, Introduction” in *A+U Magazine*, December 2002. p 10-18.
2. Bauerlein, Mark. *The Dumbest Generation: How the Digital Age Stupefies Young Americans and Jeopardizes our Culture: Or, Don’t Trust Anyone Under 30*, Penguin Group: New York, NY. 2008.
3. Howe, Neil and Strauss, William. *Generations: The History of America’s Future, 1584 to 2069*, William Morrow and Company, Inc.: New York, NY. 1991.
4. There is some discrepancy in the way certain generational theorists define the beginning and end of generations, particularly the most recent ones, born into an age of rapid change enabled by digital technology. While Howe and Strauss mark the Millennial Generation as born between 1982-2004, followed by the Homeland Generation born in 2005 and beyond (they do not recognize a Generation Z), Australian researcher Mark McCrindle argues that the speed of social, political, and economic change enabled by technology has triggered the emergence of a new generation born after 1991 (what he calls Gen Z). Hence what Howe and Strauss consider one Millennial Generation, McCrindle considers two, Gen Y (1982-1991) and Gen Z (1992-2009), respectively. McCrindle calls the next generation (2010 -) Generation Alpha.
5. Speaks, Michael. “After Theory” in *Architectural Record Magazine*, June 2005.

immersed in these tools and it is hard for us, as digital immigrants, to recognize how much these tools are a part of their lives.

He continues,

...while the digital age could (produce) knowledge/taste-inducing tools, while it could open them (Millennials and Gen Z'ers) up to the great big world of history and politics and the fine arts and foreign affairs and so on...in fact, what these digital tools mean to young people is something different; when we look at their ACTUAL practices, when we look at what they ACTUALLY do with these tools, it is a great big window into what they ACTUALLY care about: themselves.²³

While Bauerlein rightly identifies a deficiency in among Gen Z's intellectual curiosity, the weakness in his argument is that he measures Gen Z intelligence against Silent, Boomer, and X'er criteria. In other words, while critical of Gen Z's inability to thrive within America's educational system (designed, in many ways, to prepare workers for the assembly line), he fails to look critically at the educational system itself, which teaches students "to-the-test" and often mistakes actual intelligence for mere factual memorization.

It is easy to see the implications for today's design students. Their uncanny ability to multitask, engage multiple platforms, and navigate an endless field of digital content is undermined by their inability to tame fast access with critical reflection. In other words, young Z'ers often read *over* massive amounts of information without ever reading *through* it. Substitute "information" with a range of architectural terms ("site," "program," "context," "concept," "process," "material," etc.) and one can understand how Gen Z design students often mistake rigorous design research for mere power-browsing (through abstracts, web pages, etc.). It also helps explain why they can easily flip through many possible design solutions (or design "answers") if guided yet struggle to frame meaningful questions and/or construct arguments for their projects on their own. Their brains synthesize disparate bits of information tactically yet struggle to structure them cohesively and strategically. Hence they either commit to one possible alternative too quickly and/or struggle to sift through, filter, edit, and craft their work.

While these tendencies are symptomatic of generational shifts, techno-social change, and a failing secondary educational system that privileges passive and vertical lecture-style learning (indeed an outdated mode of knowledge-transfer), the architectural design studio—as an open, horizontal, collaborative, and project-based educational model—is an effective platform to leverage Gen Z's best tendencies while correcting their worst ones, for working *with* and *against* their collective milieu.

6. Hardt, Michael and Negri, Antonio. *Empire*, Harvard University Press: Cambridge, MA. 2000.
7. Baird, George. "Criticality and Its Discontents" in *Harvard Design Magazine*, Number 21, Fall 2004/Winter 2005.
8. It should be noted that Speaks never used the term "post-critical."
9. Speaks, *After Theory*.
10. Howe, Neil and Strauss, William. *Millennials Rising: The Next Great Generation*, Vintage Books: New York, NY. 2000.
11. Howe, Neil and Strauss, William. *The Fourth Turning: An American Prophecy—What the Cycles of History Tell Us About America's Next Rendezvous with Destiny*, Broadway Books: New York, NY. 1997.
12. According to Howe and Strauss, Anglo-American history has gone through 6 full seacula and is currently on its seventh: 1) Late Medieval Period (?-1486), 2) Reformation Period (1487-1593), 3) New World Period (1594-1703), 4) Revolutionary Period (1704-1793), 5) Civil War Period (1794-1864), 6) Great Power Period (1865-1945), and 7) Millennial Period (1946-1929?).
13. For an in-depth study of generational history, theory, and dynamics, refer to Neil Howe's Life Course Associates Website: www.lifecourse.com/.
14. McCrindle, Mark. "Influences on 21st Century Language" in *Word Up: A Lexicon and Guide to Communication in the 21st Century*, McCrindle Research: Sydney, AUS. Excerpt assessed on January 13, www.mccrindle.com.au/resources/whitepapers/McCrindle-Research_Word-Up-02_Influences-on-21st-Century-Language_Mark-McCrindle.pdf.
15. Prensky, Marc. "The Death of Command and Control?" in *Technology Alliance Partners*, January 20th, 2004. Assessed February 18, www.marcprensky.com/writing/prensky-sns-01-20-04.pdf.
16. Dickinson, Elizabeth Evitts. "Children of the Revolution," in *Architect Magazine*, January 2013, 110-118.
17. Wigley, Mark. "Wobble: The Cat has Nine Lives," debate with Peter Eisenman at Columbia University, Graduate School of Architecture, Planning and Preservation on September 20, 2012. Available at: www.youtube.com/watch?v=Gu4-ErX6hDA.
18. Savitt, Katherine. "Gen Z: The Age of the Curator," lecture presented at the Web 2.0 Summit on November 17th, 2010, accessed Feb 20, www.youtube.com/watch?v=ZfqF1r7LBCA.
19. Small, Gary W. and Vorgan, Gigi. *iBrain: Surviving the Technological Alteration of the Modern Mind*, HarperCollins Publisher: New York, NY. 2008.
20. Carr, Nicholas. "Is Google Making Us Stupid? What The Internet is Doing to our Brains" in *The Atlantic Magazine*, July/August, 2008, www.theatlantic.com/magazine/archive/2008/07/is-google-making-us-stupid/306868/.
21. Ibid.
22. Bauerlein, *The Dumbest Generation*.
23. Bauerlein, Mark. "The Millennials: The Dumbest Generation or the Next Great Generation," debate with Neil Howe at The American Enterprise Institute on September 29th, 2008, accessed Feb 21, www.c-spanvideo.org/program/281855-1.