How does the culture of your school contribute to your education?

Growth mindset, efficiency, data based decisions.

Makes me not hate the space I work all day

I actively search out the people who strive to think differently, I think.

My school (YSoA) is a very collegial and close-knit environment, which is why I wanted to go here. The small community helps me learn from my peers more, which is a crucial part of my education

SOM's friendly and PC culture creates a barrier to open feedback and dialogue which is tough

Immensely! I appreciate how open and collaborative SOM culture is — it makes me feel more comfortable among my peers and like I can take risks without being judged.

It contributes. I guess. Gucci Mane once said "If a man does not have sauce, then he is lost. But the same man can get lost in the sauce." That's the culture here.

How are problems framed or presented in your educational program?

They typically come as "briefs" but ignoring or inventing the brief is also a practice that is encouraged. Briefs contain program requirements as the problem to be "solved" with spaces and architecture.

Cases! Long stories where you're taught to notice details and question results.

In an average course, problems are framed as if they can be solved deterministically, in a nice little bow. In the good courses, problems are presented as messy and hazy but can be better tackled by providing models that will produce better decisions over the long run.

Multi-faceted. Not clear and not always mutually exclusive.

It's discussed but I don't think a solution is ever reached. We just continue knowing there is a problem.

Problem or goal is presented, rarely with sufficient context/information to outline the process.

Usually through case studies — context, main actors, problem at hand. And then the problems are solved through various frameworks and best practices.

What characteristics does a "good" solution to those problems have?

Maximizes the number of stakeholder needs met, optimizing for the needs/factors identified as most important, and minimizing the effect (sensitivity) of constraining factors.

Some indefinable combination of realistic and unrealistic.

Cuts through the noise. Presents a compelling positive case for your case (Why X) and negative case (Why not Y)

A "good" solution is supported by a rigorous investigation of that solution. It does not usually matter what sort of aesthetic qualities a project has, as long as it has been iterated and tested before its presentation to a critic.

Usually lines up nicely with a framework, and can be applied to other contexts

How would you describe the overall approach to design education at your school?

YSoA prides itself on having a range of design pedagogies, and that has been my experience, but I've intentionally taken classes/studios with professors with a range of design approaches.

Precedent heavy. Even when the project is abstract. Nothing ever exists within a vacuum.

SOM focuses design education on innovation and the firms that have been able to replicate innovation with a given process or formula

Old school basics and not up to date on the latest industry trends

What is the most important thing you've learned in class? What class did you learn it in?

Optimization of complex (and underdefined) systems through languange multipliers (System Design)

It's okay to take risks and it's okay to be thoughtful about those risks. It's still risky. (Modeling Managerial Decisions)

"Stop saying I don't know all the time" - Michael Sivos

Effects of randomness and covariances. (Applied Quant Finance)

"Stop hating things you haven't even made yet" - advice overheard from a critic to another student, but taken to heart. Coming to school with a background in architecture, I think I needed to learn to re-loosen up and be exploratory again and not set in my ways.

All models that humans use to view and evaluate the world are wrong. This is true for every field. Some models are better than others. Having a better model than others can prove to be very useful. (Applied Quantitative Finance)

What skills have you learned that you expect will be most important in your career?

How to manage and maintain clients and provide the right recommendation and design for a client

I think that the skills which will be most important in my career are thinking critically about the task at hand, and then being able to apply that criticality to iterative designs. Being at Yale has opened more questions than answers, but that has the potential to become a strength rather than a hindrance.

Everything Corporate Finance. I now know how to "follow the money" - Lester Freamon

Making mistakes is part of the process

Structured decision-making

Networking, communication, problem framing and data-based decision making

Probability and statistics, set theory, system architecture/ validation, logic, coding (Python, SQL, R)

Describe a formative experience in your design education?

Visiting Grace Farms by SANAA years ago. That is experiential and life-changing architecture.

I worked with a startup that supported 140+ tech firms, many hardware focused. The details were crucial in product development because the smallest inconvenience would impede adoption and customer retention. I worked with one company that had an amazing product but they refused to go to market because they felt it too heavy. I am eager to see how they are able to reduce the size

Doing a workshop at the art school led by a world renowned artist where I was forced to design a project but only after taking into consideration every possible field from History to Finance to Science before making any design decisions.

Pouring a concrete foundation during the Building Project. It allowed me to truly understand what it takes to make a building.

A few D+I meetings into my first year, the moment when I realized that design was more than architecture/graphic design/UX/UI — that it was about making intentional choices with a particular stakeholder in mind, and experimenting early and often — that opened my eyes to the potential design has to bring change to traditionally rigid fields (such as healthcare).

Developing an app

What computer program do you use the most?

Lenovo X1 Carbon

Adobe Illustrator

GitHub/BigQuery (I'm working in data engineering)

Chrome

Rhino

AutoCAD

Microsoft Word

Rhino + Adobe suite

Rhino

Excel

Adobe Suite (can't pick one, sorry! though Photoshop will always be my favorite)

Excel

Illustrator

Bluebeam

How do Architecture students design?	*How do Graphic Design students design?*	*How do MBA/business students design?*	*How do Engineering students design?*

Architecture students design in a number of ways, but they most often begin with a "low-resolution" framework of ideas, with which they proceed to clarify through research, iteration, and refinement.

Graphic design students create ideas for how to convey a message or feeling through imagery or words.

They take the needs of the case and try to meet as many as possible, as effectively as they can.

Engineers identify a problem and then problem-solve, iterate, etc. to solve the problem.

Collect stakeholders' needs and wants and translate them into requirements and constraints. Then, through an iterative and idea generation process, they work with the stakeholders to refine and optimize for space, aesthetic, or other factors.

Perhaps drawings.

MBA students might design by "filling in the blanks." I would guess that they begin with some end goal, some starting conditions, and some benchmarks, then work to connect the dots with more detailed information.

Use stakeholder needs and wants to determine design requirements and constraints. Then, through an iterative process, they apply domain knowledge and validation/testing techniques to refine the design to a point it can be produced as the end product.

They take the needs of the the users and the site, prioritize them, and then meet as many as possible as effectively as they know how.

I think graphic designers consider a message they are trying to communicate and develop images that communicate that message in a variety of consistent ways.

Perhaps discussing and talking.

Architecture students design by balancing a projection of what they would like to see in the world with the limitations of what they feel can exist in the world. In order to find success in the balance or pushing the limits of that balance, students have to have values or an agenda for form, aesthetics, environmentalism, politics, social equity, etc.

Similarly, graphic designers are preparing to work for clients, and they have to balance those demands with their artistic vision. Like architecture, I imagine that graphic design starts from a point of inspiration and then develops to address all of the problems/needs of the project.

I think MBA students follow a formula of group brainstorming and innovation that has been designed to capture diverse ideas and then build on them. First by capturing ideas independently, consolidating ideas that are similar, voting on the best ones and building further on the most popular designs/features.

They don't. Only further implementing architects' designs.

Architecture students design physical spaces and the built environment. They consider issues of accessibility, usability, and the feelings that a particular design invokes in those who encounter it.

Always connected to the cloud

Engineers design through realistic applications. Taking principle theories and applying them to real world applications.

Spreadsheets?

A combination of intuition and formal moves that have been taught or imbibed by looking at precedents, rarely does it start with the material but that is also another way of designing.

I think that graphic design students design, in a way, quite similarly to architecture students, except they start by loosely arranging the space of the page or the web instead of the plan or the section.

MBA students don't design physical things in the same way the architects or graphic designers do, but they design projects or business models. I imagine that the design of these models is driven my efficiency, profit, and the values of the company/business that the model is for.

Engineers design by providing further clarity to an already-established design. This does not mean that engineers cannot be creative, but their creativity is primarily limited to the bounds of safety and material limitations.

What does it mean to "sell out" in your profession?	*Do you consider yourself a sellout? Do you see yourself selling out at some point in the future?*	*How do you perceive the idea of aesthetic taste?*	*How does critique contribute to your education, if at all?*

Only provide the recommendation to earn a profit and not what is right for the client.

No, and I certainly hope not in the future. But I can also understand that with the current state of salaries in architecture, people with certain financial burdens would need to change their priorities. In some ways, not selling out is a position of privilege.

I like it. To me, aesthetic taste is feeling that something looks and feels the way you want.

Theoretically this is how design knowledge is passed, but it doesn't always work that way. There's a lot of baggage in critique.

It does not contribute to my education.

Join a large soulless corporation whose only goal is to make profit.

No comment

It is a difficult but necessary daily exercise

It's developed through education, exposure, culture. There is variety in aesthetic taste within boundaries defined by the field as "acceptable". It's hard to say when aesthetic taste is actually defining good v. bad design or just defining in the circle of influence v. out of the circle of influence.

I think critique is really important. Despite improvements that can be made to reviews, I think that presenting your work to an audience is important. I also think that critique from peers and critics on a regular basis is important. I do my best work with my toughest critics.

When you make a glass and steel monstrosity somewhere in Asia or Dubai. Or Hudson Yards these days.

I am sure it may happen from time to time but that is never my professional intent.

Investment banking or M&A consulting.

Important

It provides a contrasting perspective that stress tests my assumptions and thought process, ultimately to help refine and better the solution.

Yes of course. I went from very fulfilling nonprofit work to very for-profit work.

I don't believe there is a "sell out" in engineering.

Typically subjective, however given a particular culture there are some similarities (think generations, geographically)

It contributes negatively even if the outcome is a positive critique. The build up is an anxiety inducing wait for a tearing down.

No, but I tread a thin line. I believe you can join a large soulless firm and make the most of it to further pursue your passions. But if you stay too long and start to tie your identity to your company, then you've sold yourself.

I think it is completely intuitive

Not really, but there are few courses where I have learned how to think better by having my models of the world questioned.

Business schoolers probably can't "sell out" but from a Yale SOM perspective this probably means to take a job that delivers value for corporations that do not value impact, or will pay employees enough to ignore negative social or environmental impact

What a designer intends in their design.

Innate

The opinions of others are always useful to consider even if you don't agree with them. It helps to remind me that architecture is really about everyone but the "creator" — if there can even be one creator. It helps remind you that you have to distance yourself from your work enough to be able to amend it according to criticisms you receive, even if you are emotionally invested.

Not right now maybe who knows how broke I will be and having to give up the dream of starting my own firm with my best friend and working for a corporate place. I just want to make a movie.

As a personal brand that one curates for themselves

Luxury condos

Vol 5 Issue 11: Design Education

In the past century, design—in its various forms and industries—has been professionalized. From the 1900s, the fields of architecture and engineering developed systems of licensure and formalized education. In the 1950s, Josef Albers oversaw the first US graduate program of Graphic Design at Yale. In 2017, IDEO founded IDEO U, with online resources to disseminate their Human-Centered Design philosophy. However, Oscar Wilde once quipped that "Education is an admirable thing. But it is well to remember from time to time that nothing that is worth knowing can be taught."

Most would agree that there are some core design methodologies and skills that can easily be transmitted to students (the Design Thinking framework, the basics of typography, etc.), but are these skills alone sufficient to produce a capable design professional? If not, what is missing? What other formative experiences are important in this developmental process, and how are they currently addressed in our educational system?

In an increasingly complex and collaborative world, the different perspectives of design collide within organizational hierarchies. Do all designers speak the same language, or do their formative educational experiences give them different vocabularies, syntaxes or dialects? How do educational environments differ across schools and academic specialties (for example, in the School of Management vs. the School of Art), and what effect does this have?

For this issue, we surveyed 15 students from the fields of architecture, engineering and business about their design education. By exploring these formative experiences, we can begin to understand the varied perspectives that design professionals ultimately bring to the workplace.
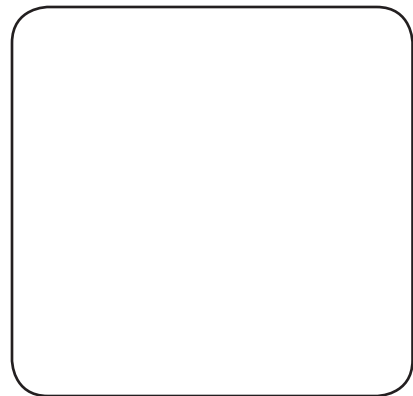
Architecture

Engineering

MBA/Business

Desk Crits: Architectural Education, Licensure and the A.R.E. 5.0

Scott Simpson,
M.Arch I, 2021

Desk Crits: The Insider's Guide to the A.R.E. 5.0 includes everything you wish you knew about the tests. It features exam outlines, study sheets and general tips and tricks to help you pass all six exams.

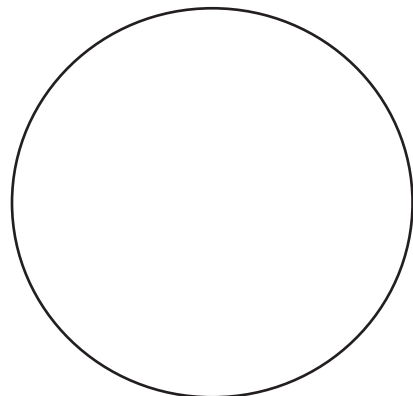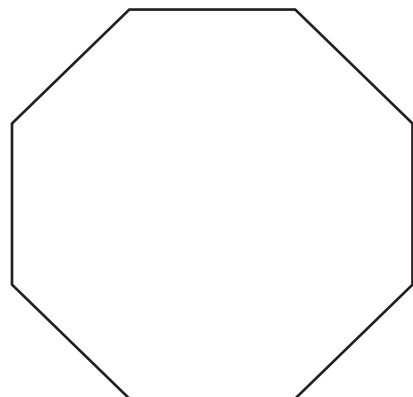**The founders of Desk Crits are YSOA Alumni Tess McNamara (M.Arch & M.E.M. 2018), an environmental designer at Atelier Ten, and Sam Zeif (M.Arch 2018), an architectural designer at Herzog and de Meuron in NYC.**

Scott Simpson From the website, Desk Crits looks like an amazing project. What would you say is its mission?

Tess McNamara The mission is largely that the A.R.E. is terrible, and we think it shouldn't have to be. NCARB has recently redone the tests and they're a black box. Figuring out what's on the exams is more than half the battle. We struggled through all six, but somehow managed to pass six in a row. Once we had time to regroup and figure out what just happened...

Sam Zeif We decided we wanted to do it again.

TM Yeah. [Laughs] We realized that we had collected a lot of valuable information that would be helpful for other people. We found that existing exam guides completely misrepresented what was actually on the tests. We were knee-deep in NCARB forums just trying to figure out the specific topics covered on the exams! We spent almost as much time gathering information as we did studying. With Desk Crits, we're trying to cut out that first part of the process.

SZ The book is in three chapters. The first is a general introduction that includes FAQ for the A.R.E. What order should you take tests? How should you budget your study time? What should you eat/drink/wear on test day?

TM [Laughs] Don't drink too much water before you sit for five hours. We both made that mistake.

SZ The second chapter consists of outlines for each of the six tests. This includes a topic list and the precise pages we recommend reading from external resources to cover the required content. The third chapter consists of 27 study sheets. This is a polished and illustrated version of the notes we accumulated along the way—Tess writes A+ notes—curated to include the baseline material we feel you must know. This is a solid foundation

to supplement the primary and secondary resources that are admittedly more in-depth, but easy to get lost in. Think Spark Notes.

SS What resources did you end up consulting? There are a few companies that do publish guides. Did you end up purchasing any of them? It's crazy that this is something every architect has to go through and there is a veil around it like it's supposed to be a huge secret. But it's the final and most critical step to becoming an architect.

SZ Yeah, we did use those resources. There are a few major ones and we actually reference all of them in our book. A few of them claim they're a one-stop shop. They're not. You need something that's a road map between these various resources so that you don't end up reading 600 pages of Ballast (author of the A.R.E. 5 Review Manual) and wasting your time.

SS I want to ask you about the role that licensure plays today. How does this process overlap with the issues that architecture faces in terms of diversity and access to the profession? Does it provide a common language for design professionals or is it something exclusionary? Should it exist?

SZ There are tons of barriers to entry in architecture, but I wouldn't have mentioned licensure as one of them. The bigger problem is the exorbitant amount of money needed for graduate school and the unfortunate reality that this doesn't translate into a salary that can catch up with your debt on the other side. Licensure should be a way to recover some of this debt. It should definitely be much cheaper, more intertwined with school, and more transparent, but it shouldn't disappear.

TM If you're living in New York on an entry level architecture salary and your firm is not paying for your exams, it's difficult to shell out the $1,500-ish required to take all the tests—and that's just if you pass them all the first time. I was lucky that my firm paid for my exams, and actually paid for my licensure fees. You have to ask about this in your job interviews. I was surprised by how many firms don't pay for exams.

To answer your question about a common language, I do think that licensure creates one. As an environmental consultant, I work directly with other architects every day. The fact that I'm a licensed architect gives design teams an immediate understanding of my background, and communicates the depth of my knowledge. I think the same applies if you're an architect dealing with consultants.

SS Do you feel you approach practice differently after licensure?

TM There are two exams that test you on how to run a practice and how to run a

project (PcM and PjM). They cover firm financials, budgeting, work plans, things like that. I found these really interesting. They made me think differently about how my time was budgeted between phases of projects, and helped me understand how my firm sets their fees. For the last few exams, you need to have command over the International Building Code and the ADA. That's important in practice as you draw wall types, bathroom elevations, or even handrail details.

SZ Coming off the heels of Yale's Advanced Studios, it is a huge comedown to spend your Sundays learning about push and pull door clearances, but I think it's healthy. Graduate school is a luxury, and it's really not what practicing architecture is like on a daily basis. In a way, the experience of studying for these tests is more true to the profession.

SS Relating your experience of creating this resource to your experience in academia, do you feel school should be more tailored to these tests?

TM We talk about this a lot. The truth of the matter is that architecture school is so fun. You're thinking about these amazing ideas that are critically engrossing, and you're making amazing visuals to communicate those ideas. The classes that cover exam content are the classes no one wants to spend time on: Environmental Design, Professional Practice, Systems Integration, etc. I think a happy medium would be to take A.R.E. exams during school. For example, if your Professional Practice final were your "Project Management" and "Practice Management" A.R.E. exams...

SZ Definitely. The fact that you can't start taking your exams until you're done with school creates an artificial divide. It reinforces the idea that what you're learning in school is not professional experience.

SS Do you feel like you'd ever want to expand on the Desk Crits project?

SZ I think for the time being, we're trying to expand this product's reach, rather than the number of products we have. We just made this to help our peers and to push back on the fact that this information is so hard to come by. We would still rather be architects than test-prep professionals!

You can check out Desk Crits at desk-crits.com or @desk_crits on Instagram

YSOA students get 20% off with code RUDOLPH20

The Dean's List: Pickles

Welcome to the Dean's List: your weekly destination for Deborah Berke's most on-topic, off the beaten path rankings.

Penthouse: Bread and Butter
7th Floor: Dill and Hot (tie)
6th Floor: Pickled Beets
5th Floor: Half Sour
4th Floor: Gherkin
Basement: Sweet
Sub-basement: Mango Pickles

Comments: "I really like pickles—especially Bubbie's Bread&Butter"

The Cult of Inspiration

David Keim, MBA 2021

Broadly speaking, design can be understood as a combination of process and art. The process-driven parts seem easy enough—simplified ideas like the Design Thinking Framework present a reliable, predictable approach to design that can easily be planned for. If only it were that easy. Every designer I've ever spoken to on the subject, on the other hand, has indicated that there may be a bit more to it than that. These simple, well-defined processes alone are in fact insufficient to create good design. Call it taste or inspiration, but there seems to be something else at play that turns an ordinary project into something that truly resonates with people—something that moves beyond mere utilitarian design into the realm of art.

For millennia, humans have wondered about the origins of artistic inspiration. The Ancient Greeks saw it as a divine force by which the thoughts and ideas of the gods Apollo and Dionysus would be revealed to the artist. In the modern world, even as we learn more about the human mind and emphasize the importance of creativity in the workplace, the mechanism of inspiration nevertheless remains elusive and unpredictable. Designers cannot force themselves to be inspired at will, and no external factor that we know of can reliably induce it. It visits at unpredictable times, paradoxically absent when working on the problem at hand, and striking when the mind is occupied with something completely unrelated (for example, "shower thoughts"). Despite its elusiveness, inspiration is absolutely unmistakable when it does occur—a thrilling moment of clarity when everything seems to come together. With these characteristics, one can understand why the ancients would have attributed such an exhilarating yet unpredictable feeling to some kind of divine influence.

As an MBA student with an undergraduate degree in chemical engineering, I may be uniquely unqualified to write about such a nebulous, fundamentally unscientific topic. However, for those of us who may one day end up working alongside designers, it is necessary to come to grips with all aspects of the design process, especially when it comes to our different approaches to it. From a management perspective, the process elements of design are certainly seductive. Processes, after all, are nicely predictable and lend themselves well to business purposes. With a well-defined process, one can build detailed project plans, project budgets years into the future, and calculate all kinds of metrics that will tell us, in unflinching detail, exactly how much "value" a project has. Inspiration, however, does not fit into this model. Such an unpredictable, unquantifiable thing doesn't seem to lend itself well to the world of business, yet it nevertheless seems to be an essential component of good design. So what is an MBA to do?

Perhaps the best thing to encourage inspiration is to simply do nothing. Instead of trying to catch lightning in a bottle, we should just allow it to strike naturally. Ceding this much control over the design process is certainly uncomfortable for the business world, with its Gantt charts, weekly status updates and shareholder meetings, but is our usual approach in fact counterproductive when it comes to achieving truly good design? As an alternative, maybe we can simply learn to trust the designers that we work with—a kind of faith (or at least suspension of disbelief) that inspiration will arise even without our constant prodding. If we choose to make room for unstructured processes—albeit not the most predictable nor the most efficient approach to design—with a little luck we can achieve something truly inspired.

The Capable Design Professional of 2020

*Nikolaj Junker Madsen
MSc, Copenhagen
Business School, 2020*

Ever since Walter Gropius founded the Bauhaus in Weimar in 1919, our understanding of design and design education has been formally conceptualized and developed. Part of the prospectus of the Bauhaus school reads:

"We know that only the technical means of artistic achievement can be taught, not art itself. The function of art has in the past been given a formal importance which has severed it from our daily lives; but art is always present when a people lives sincerely and healthily. Our job is therefore to invent a new system of education that may lead — by way of a new kind of specialized teaching of science and technology — to a complete knowledge of human needs and a universal awareness of them. Thus our task is to make a new kind of artist, a creator capable of understanding every kind of need: not because he is a prodigy, but because he knows how to approach human needs according to a precise method. We wish to make him conscious of his creative power, not scared of new facts and independent of formulas in his own work" (Walter Gropius quoted in Munari, 1966:27)

As we enter into 2020, I was asked by *Paprika!* to inquire into how we can create the "right" 'new kind of artist' capable of solving the problems of tomorrow. In doing so, I naturally turned to academia in search of answers. In 2012 Rasmussen, Mortensen & Jensen (from the Department of Design at the Aarhus School of Architecture) published an article titled "Preparing design students for strategic design", in which they clearly conclude that traditional design skills must be extended with new skills from various other disciplines to prepare designers for increasingly strategic problems.

They write: "In recent years there has been, in both design practice (Brown 2009) and design research (Buchanan 2001), a focus on how designers can move 'upstream' from a tactical level in the innovation chain, and have a greater impact on the strategic decisions a company makes. The strategic questions that a company faces in this 'fuzzy front end' of the innovation process are, according to Rhea (2003, p. 143): 'what to make, who to make it for, why to make it, and the attributes of success'. He continues by saying that executives with an education in management consider the process of the 'fuzzy front end' ill-defined, random and mysterious. Therefore, several researchers with a background in management, such as Martin (2009) and Boland & Collopy (2004), point out that the open approach to a process from the design profession, especially techniques for visual representation and sketching, should be combined with existing practices from management. These should be used by multidisciplinary teams to create an overview of the strategic options at the 'fuzzy front end'. However, some parts of the design community, like VanPatter & Jones (2009) and Bruns et al. (2006) are concerned that designers may fail in the multidisciplinary strategic field if they just bring their traditional methods and techniques, developed for far less complex problems, directly into the new context without adapting them. In other words, the exchange of knowledge needs to go both ways between the design profession and other disciplines such as management, if designers are to work successfully on this level" (Rasmussen, Mortensen & Jensen, 2012:15).

The authors are quite clear that the future of design (at least with-in organizations) lies in-between the worlds of management and traditional design. The authors present this new approach as strategic design. "The design field is presently undergoing a transformation that is expanding the boundaries of how design is considered. The problems to which design is applied are becoming more numerous. However, who is actually doing the designing is becoming less clear. The largest design firms are moving from focusing on the design of products, services and experiences to also working with transformation processes at a strategic level, where they tackle complex issues in companies, organizations and public institutions (Brown 2009)… Designers working at a strategic level should take a holistic and interdisciplinary approach to complex problems, and make sure that what is designed makes sense in relation to a wide range of parameters ranging from user experience to the environmental and societal impact. Esslinger (2009, p. 53) describes the designer of the future in this complex context as: "highly creative, strategic designers who are fluent in convergent technologies, social and ecological needs, and business"" (Rasmussen, Mortensen & Jensen, 2012:17).

What management can learn from design

Any business school student who has ever worked side by side with a designer, or vice versa, knows that these two "worlds" have very different ways of working. "A common suggestion for how designers can have real influence at the strategic level is to teach executives with management backgrounds, who are currently making such decisions, to think like designers. In recent years the design company IDEO have promoted the concept of 'Design Thinking' where executives learn what designers do when they create a synthesis of different parameters by 'integrating what is desirable from a human point of view with what is technologically feasible and economically viable' (Brown 2009, p. 69). Several researchers from management see a 'designerly' focus as a means to break with a worn-out paradigm in management that focuses on optimizing the solutions of the past through repetitive analysis and efficiency. For such a 'designerly' mindset to work in organizations Martin (2009) states that executives should allow new suggestions to be proven to validity (focused on the future) rather than the traditional focus on reliability (focused on the past). Michlewski (2008, p. 387) points out that designers, when focusing on the future, work in an assertion-based way rather than an evidence-based way, and create novel, original forms that challenge the status quo instead of working with predetermined frameworks. According to Hamel (2002, p. 25) this focus makes executives with a focus on reliability see the process of innovation as 'a rather dangerous diversion from the real work of wringing the last ounce of efficiency out of core business processes'. Rhea (2003, p. 145) notes that this 'management attitude' makes the first part of an innovation process, often referred to as the 'fuzzy front end of innovation', seem ill-defined, random and mysterious because: 'the impetus for new products often comes from a wide array of sources, and the way these products gets manifested is not considered predictable'. Martin (2009) sees user understanding and visualization from the design profession as tools that can help executives get a better overview and make sense of the many parameters in this situation. Boland & Collopy (2004) say that leaders should adopt an outright 'design attitude' through which one aims at creating products, services and processes that are both profitable and humanly satisfying. They add that executives who want to learn 'managing as designing' should embrace the design process's open, visual and sketching approach" (Rasmussen, Mortensen & Jensen, 2012:17-18).

What design can learn from strategic management

"The term 'user' has a particular complexity in strategic design processes compared to a traditional design process. The subjects for user studies, the entire organization in form of both management and employees, and the subject matter, strategy and the organization itself, have a mutual relationship; a convergence that makes it difficult to separate the two elements. In addition to this, the complexities or the 'messes' that need to be understood (VanPatter, 2009) is much larger, given that it is not only the company's products or value propositions (Osterwalder, 2010) that have to be examined, but also the organization itself. This means that when the purpose of a strategic design process is an organizational transformation process, you can not only look at the products as Verganti does when he talks about 'design-driven innovation (2009). The users, in this case the company's management and staff, are in this process both 'informants' and 'implementers'. This means that they must inform the process and implement the results in the organization. The outcome of the process, in the form of a strategy, can only be implemented in the company if there is established ownership in management (and eventually also employees). This ownership can only be achieved through the involvement of management in both the investigation process and in the synthesis. This makes the strategic design process more dependent on the users' (management and employees) input and commitment than is a traditional design process" (Rasmussen, Mortensen & Jensen, 2012:25-26).

The authors conclude their paper with the following remark: "If current design education should prepare for educating strategic designers in the future, then traditional design skills must be extended with new skills from various other disciplines. Particularly in the field of strategy, there is a need for new tools, but also within process facilitation and communication the educational programs must be upgraded. The role of future strategic designers will be to take responsibility for and facilitate change processes in organizations and ensure that they don't 'get stuck' as Adam Kahane (2010) calls it, and therefore never becomes implemented in the organization. New tools for interdisciplinary participatory processes and for creating common ownership for a transformation process will be core competencies for future strategic designers." (Rasmussen, Mortensen & Jensen, 2012:26).

To summarize the key takeaways from Rasmussen, Mortensen & Jensen's (2012) paper we can say that management has to become more 'designy'. Human-Centered Design and Design Thinking have proven themselves to be valuable tools in teaching managers to think and work like designers. Design also has to become more managerial, taking into account that we may not only be designing new products or services, but that the introduction of new product and services may change the organization. This will require an expanded understanding of users to include both a company's management and staff, in order to ensure the implementation of the changes necessary to bring the new product or service to market. Designers have to become change agents, understanding the entire system which produces new products and services. I would even argue that future designers have to become more entrepreneurial, as I believe this "new form of organizing" for change can take inspiration from the academic field of entrepreneurship, where entrepreneurship is the new management (properly described as enterprise rather than entrepreneurship; Hjorth & Holt, 2016) — the urge to master creativity (and innovation), openness and heterogeneity as organizational conditions for collective creation — but that is a topic for a further article.

To read the full paper please see: Rasmussen, J., Mortensen, B. S., & Jensen, B. G. (2012). Preparing design students for strategic design. *FormAkademisk - forskningstidsskrift for design og designdidaktikk*, 5(1). https://doi.org/10.7577/formakademisk.373

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Stuck on my Spotify

*Nikolaj Junker Madsen,
Liwei Wang*

**Late Night Electro:
A collection of dreamy German electronica suitable for afterparties into the early hours.**

Last Day (David August Revision)
Kollektiv Turmstrasse
Something Says
Jan Blomqvist
Scheune (Original Mix)
Feathered Sun
Feed Your Head
Paul Kalkbrenner
Meine
Daso
Smile For You
Mees Dierdorp
Drift (feat. Aparde)
Jan Blomqvist
The Ginning
Stavroz
A Tribe Called Kotori (Short Edit)
Oliver Koletzki
Dream Machine
Dominik Eulberg

Cross Campus

Phil Bernstein
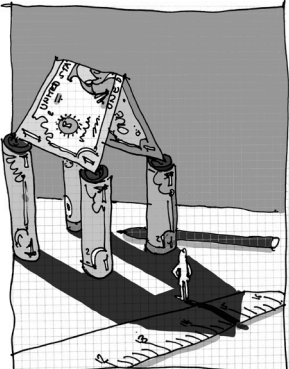
LAUGIER ON MY MIND

Drawing by Paul Meuser, M.Arch I, 2022

Phil Bernstein is currently Associate Dean and Senior Lecturer at Yale School of Architecture, where he teaches Professional Practice in the core curriculum. He was formerly a Vice President at Autodesk, where he was responsible for setting the company's future vision and strategy for technology as well as cultivating and sustaining the firm's relationships with strategic industry.

Several years after graduating, just about the time my contemporaries were becoming actual professionals like lawyers, doctors, and architects, my college roommate abruptly left his fancy Wall Street attorney job to become an entrepreneur. While he had aced college and did well at an equally fancy law school, he explained to me that "unfortunately, law school has little or nothing to do with practicing law." He's the CEO of an energy company now, having used his brief law career as an accelarant to another trajectory.

One wonders if the same is true of architectural education. The rarefied air of the design studio is seldom if ever matched in actual practice, although it may blow through a scant number of highly academic firms; those offices often survive subsidized by teaching salaries paid to their principals, a self-reinforcing financial/intellectual loop where design outcomes neutralize business considerations. And even those architects who practice at the pinnacle of our profession spend most of their working lives dealing with issues and challenges — client relationships, regulatory constraints, group dynamics, money, lawyers — that they didn't come within a hundred miles of while in school. One might argue that wrestling with these constraints is part of solving a design, and perhaps make the solution richer. But, I suspect that some graduates accelerate their careers to non-architectural trajectories after they realize that making buildings is a larger enterprise than the joyful abstractions of graduate education.

Out in architecture's curricular suburb that is Professional Practice (where I've lived during my entire teaching career, a distinctly different locale from the cool, downtown nightclub district of the design curriculum) I grapple with this question every year. Is ProPrac just another course to be tolerated on the road (an accredited degree that grants the right) to licensure, or somehow more profoundly relevant to design training? And if not, must it get in line with the ever-enlarging enterprise of training the next generation of architects?

When I was a Yale M.Arch candidate in the last century (yikes) there were no computers, barely any theory taught, no consideration of sustainability ("solar energy is akin to plumbing" Scully once told me), no ProPrac, no social justice agenda, no summer programs, no studio travel… all of which is to say that as teachers we are trying to stuff more and more curricular potatoes into a time-limited, expensive sack, and demanding much more of our students to partake.

Ironically, what has engaged the current generation of students (and resulted, for example, in this invitation to contribute to *Paprika!*) is not the realization that insight gained in practice is central to design competence but rather the general entrepreneurial zeitgeist in post-graduate education today, combined with mounting pressure on recent graduates to make money and repay their loans. Today's architectural anxieties — low pay, high risk, and a general lack of appreciation of our craft — are not new, they're just vivified by the enthralling possibility that, dammit, we're professional innovators, why can't we cash that in?

On our side of campus you can see urges to raise our innovation/business game everywhere: Keller Easterling's LAUNCH course, the burgeoning number of dual M.Arch/MBAs, folks wandering over to the School of Management (SOM) to take electives, Tsai City, even my Exploring New Value in Design Practice course. Across campus, SOM wants to attract more architects for the dual degree ("we love having architects over here" Amy Wrzesniewski once told me). Their core curriculum is experimenting with teaching something called "Design Thinking" in a class called Innovator, which is taught without our help. They completely recognized their curriculum several years ago to remedy, according to a Harvard Business School case, "an increasing disconnect between the traditional MBA curriculum and the demands of management and leadership in modern organizations" and "[the need for leaders who can] draw together diverse constituencies in pursuit of meaningful aspirations." Beyond the standard employer trope that "architecture graduates can't do anything useful" these worries resonate on both sides of Cross Campus. Can we articulate the desired outcomes of an architectural education so clearly?

The thrall of design/studio pedagogy is so strong in every architecture school — after all, it's a tradition that's literally centuries old — that it insulates the curriculum from having to really answer that question. "Train great designers" is a good start, but what does that mean, and how is that objective tied to creating a generation of young architects who can sustain both the built environment and the relevance of the profession itself? In the parlance of the prompt for this issue, what, exactly, is a "capable design professional" and how do we purport to create one?

Schools today can make, it would seem to me, one of three choices to answer this question. First, and easiest, is to make no choice at all and simply follow the template (studio, support courses, etc.), guided only by the parameters of accreditation. Few schools would admit to this positioning, but their curricula may present a different set of facts on the ground. If a school can't describe how it is truly different from its competitors, then assume this is their (non-)strategy.

A second option would be to declare a set of skills and competencies necessary to be a practitioner — one who might be almost immediately useful to an office upon graduation — and build a curriculum around that approach. The degree of satisfaction of employers with their recently minted graduates would be the measure of success here. Ironically, the only "Top Twenty" architectural school ranking in the US, provided yearly by Design Intelligence, uses precisely this largely meaningless metric of the efficacy of architectural widget producers.

So it seems that Yale's long tradition of a pluralist, stylistically agnostic, multi-valent curriculum might well be the best route to creating a competent future practitioner, exposing a student to a wide variety of perspectives, priorities, skills, and contexts and forcing her to learn to make intelligent choices — the core capability of a good designer. Our "differentiator" then, from other elite schools, is the breadth and quality of those opportunities, organized around the principle that good architects can in fact "draw together diverse (considerations) in pursuit of meaningful aspirations." Perhaps SOM might have looked across campus to Rudolph Hall for some inspiration toward those ends, where real training in "Design Thinking" would truly integrate the learning experience of tomorrow's business leaders.

But at the same time, given our putative shared educational mission with our brethren at the Management School, we should explore the opportunities to take a few lessons from Evans Hall, where there is a strong emphasis on both integration of curricular components (focusing on "customers" rather than "accounting," for example) as well as skills in leadership and collaboration. While there are notable exceptions (like Systems Integration), studio work operates in isolation from the balance of the curriculum. Collaboration skills may be touched on lightly here (ask a third-year about "Legoman") but are largely relegated to "group work." Turns out that an understanding of principles of working in a group, participating in or even leading a team, or building a consensus are necessary competencies to practice architecture, despite the singular nature of design pedagogy. We should look for opportunities to teach them more often in our building, and need to look no farther than SOM to consider how.

I'm often approached by our students interested in the dual M.Arch/MBA program, who explain to me that they "want to run a firm someday" and believe an MBA is necessary to do so. You don't need a full curriculum in finance, accounting, or even marketing to run an architecture practice, most of which are pretty simple businesses that require only rudimentary acumen and skills. I suspect that those of you who have manipulated a firm operating model in ProPrac have more experience on this front than the majority of your future employers.

Where architecture needs real innovation, however, is in the design of future business models and their relationship to the larger systems of the building industry. Today the emergent interest in that question can be seen in the appearance of new practice strategies (like Katerra or Alloy Development) but it isn't being worked on in a systematic way — particularly in the academy — nor are students exposed to the basic skills of strategic innovation in business that will be needed as our profession faces climate change, globalization, and most importantly, relentless automation.

While this is the subject of a much longer and rigorous examination, we have begun a conversation with SOM about exchange of pedagogy across campus that could benefit both Yale's M.Archs and MBAs, where congruent "innovation" agendas can be served with both design and business capabilities. There are many possibilities, ranging from cross-listed course exchanges to collaborative research. What if MBA students represented clients in the studio? If architecture students applied design skills to creating new business strategies? If actual buildings were designed as part of real estate finance classes? If our design faculty taught "Design Thinking" at SOM and SOM faculty taught strategy or leadership at the School of Architecture? These sorts of episodic integrations might lead to a larger idea about true cross-campus collaboration across multiple disciplines, and thereby more fully prepare today's students for tomorrow and make a Yale M.Arch that much more relevant to the practice of architecture.

On The Ground

12/13/19 Does Dean Berke's promise of a Spring Break carpet replacement mean "Last Hurrah Merlot" instead of "Send-it Chardonnay" with our Mid-Review cheese trays?

12/15/19 Seventh floor 3rd-years who didn't get the +1 invite to the Space-Time-Form final review attempt to throw a party with a tableful of leftover water-filled wine bottles.

12/29/19 Followers look on in suspense as @babysandler is almost trampled by a baby Rhinoceros on her Hanukkah Safari. Fortunately Santal 33 is also a Rhino repellant.

12/31/19 As 2019 comes to a close, YSoA continues to mourn the loss of @ghostofpaulrudolph, and worries about the future of @desk-garbage, @the_oj_files and @memesofysoa. Slightly less concerning is @shoes.of.ysoa whose 1,248 followers provide a glimmer of hope that a YSoA social media account might have "legs".

1/1/20 In a disappointing start to 2020, Atticus raises its $1 small coffee to $1.61. Students scramble for quarters, dimes and pennies, and grapple with decisions about prioritizing caffeine or clean laundry.

1/2/20 As Advanced Studio briefs roll out, the straight white men in 3rd year sweat over the choice to design a Women's Museum or an Afro-Futurist city block.

1/3/20 After spending break mulling over surprising lottery results, 2nd-years mount a campaign to convince their classmates to consider the purpose of a straw poll.

1/5/20 Does the Spring Semester Symposium "Beyond the Visible: Space, Place and Power in Mental Health" mean that we get a soft serve ice cream machine in the 4th floor kitchen? A ball pit? Aromatherapy misters? Sleeping pods in the penthouse? Puppies?

1/6/20 Still reeling from the loss of last semester's Halloween Party, 2nd and 3rd-year students hold their breath, hoping that the 1st years might fare better at Prom planning.