

Foundational Change



Introduction

When our architectural firm embraced Blue Design and its deep vision of sustainability, we not only made a promise to move technically far beyond our peers, but also to define, implement, and embrace foundational change. This change includes the way we define sustainability, and also its effects on the organizational and business model for our firm. We have committed to evolving our practice while still functioning as a profitable enterprise that properly addresses the necessities of business-as-usual. This is not a simple thing. Recently I attended an interview where a K-12 educational client was also engaged in change. The two together prompted some thinking about meaningful change.

Our prospective client was grappling with the changes necessary to adapt their buildings, curricula, and educational philosophy to the needs of the 21st century. For those unfamiliar with the 21st century school discussion, it is a diverse collection of ideas focused around defining the changing role of our K-12 educational systems. The 21st century schools movement is not united behind a singular set of defined tenets, although various trade and client organizations have created different formulas. I am not an expert in 21st century schools, but I know the terrain that comes with defining their evolution. At its roots, it is really a conversation about change.

Classifying Change

I believe that change falls into two classifications: Additive change and foundational change. The analogy of a jigsaw puzzle is a good vehicle to explore their distinction. Additive change is analogous to replacing selected pieces of the puzzle, or sometimes adding new pieces onto its edges. The puzzles that are “21st century schools” and “creating a sustainable built environment” have a very large number of pieces. Changing or adding a few pieces does not significantly change the overall picture that is portrayed by the completed puzzle; it changes it in minor ways so that it fits our needs better. If we apply this analogy to 21st century schools, we get changes like “varying the sizes of learning spaces” or “equipping the building for wireless internet access.” If we apply it to sustainability, we get “improving the efficiency of the boilers” or “installing solar panels on the roof.”

In contrast, foundational change means we’ve thrown out the old jigsaw puzzle and gone out to look for or create a completely different puzzle. We may say “The school as we know it will not exist. It is replaced by small neighborhood nodal learning centers” or “the building construction changes radically; it is completely powered by renewable energy and is built entirely of rapidly renewable materials” or “the school is designed as a demountable structure, completely recyclable into other buildings by taking it apart, or it can be taken apart and reconstructed in a new location as demographics change.” The two forms of change are therefore at opposite ends of the spectrum.

W. Brian Arthur, in his book “The Nature of Technology,” coined the term adaptive stretch to portray the way that established technology reaches to achieve new levels of performance without fundamentally remaking itself. Adaptive stretch correlates to additive change. Most of what we hear in the discussion of 21st century schools is really a process of adaptive stretch to make existing educational and facility paradigms reach to fulfill the requirements of the 21st century. We could call this paradigm stretch.

We always need to question how far to stretch an accepted paradigm, and when to begin working on a new paradigm. Do we additively change or foundationally change? From the perspective of sustainability, I believe that we need to be working on a new paradigm

for our relationship to natural resources, even as we temporarily stretch the old technological paradigm to increase the performance of building energy and other resource performance. I believe a similar argument holds true in the evolution of our schools.

This is true foundational change. Evolving our schools goes far beyond putting a few solar panels on the roof, putting bamboo flooring in a classroom, or putting a bike rack outside the building. It's holistic: not adding parts to the whole but rather rethinking the whole. Foundational change wrestles with large, wide, abstract issues: The changing nature of learning, changing technology and its thoughtful integration. The interconnectedness of learning to society, business, and community. The light-speed connectedness of our societies; their decentralization. Our changing relationship to natural resources and our environment.

Our interview experience drove home this differentiation between additive change and foundational change. Just like our firm, this client was seeking to move beyond additive change and toward foundational change. People talk about change all the time, but if you examine it closely it's almost always additive change. It's change you can incorporate without leaving the comfort of your environs; it's armchair change. It's much easier for us to conceive change from the perspective of what is familiar to us. Creating a 21st century school by putting some solar panels on the roof or varying the size of the learning spaces is easy to understand and gives us the quick satisfaction of moving a little bit beyond the status quo.

Its implementation may be gratifying, but many are realizing that additive change is hollow. From both the perspective of 21st century schools and from sustainability, we are heading full-speed into a wall, and tapping the brakes through additive change is not going to alter the outcome. We need foundational change to reimagine the whole, rather than bolting-on or replacing little pieces.

Change has become a cacophony. Once you tune out those broadcasting additive change, there are some telling signs to identify the few talking about foundational change. There's seriousness in their words, an understanding that it's not easy and it's not a vehicle for quick gratification. Descriptions move away from lists and towards

ideas. There's always a piece of the discussion that crosses disciplines. You can't talk about foundational change in 21st century schools without reaching into anthropology, sustainability, or learning phenomena. You can't talk about foundational change to create true resource sustainability without talking about ecology, systems theory, or industrial manufacturing techniques. The scope of the discussion quickly draws in wide disciplines. This rarely occurs in additive change.

No matter what your profession is, additive change is easy to find, and foundational change is hard to define. Additive change is comfortable, because we can incorporate it from our armchair; our "paradigm rut." We can reach out from that rut, grab that additive change, bring it into our rut, and stay comfortable. In the case of sustainability, LEED allows us to do that, sacrificing deep foundational change for additive change. If we're asked to step out of our rut and deeply look at what's happening in the big world, to define a new puzzle of foundational change, we are frightened.

Organizational Change

Any type of change is a difficult undertaking for public schools. As with any large organization, schools are propelled forward by the momentum of the past. The tried-and-true may not be optimal, but it is safe. The risks of change are not lightly taken. Their use of public money and the responsibility thereof add to their conservative character. Additive change is difficult; foundational change is almost never seen.

Change is not an easy thing in the environment of a successful architectural firm either. Architecture is also a conservative profession, necessarily so considering its responsibility to public safety and the large sums of money involved in construction.

Both share the momentum of its practitioners' experience. In architecture, the old adage about new tricks holds true: I find it is much more difficult to convince older practitioners of the value of change than younger ones. I expect the same to hold true of many professions, including that of educator.

How do we apply foundational change to a large organization that has a lot of momentum, like a school or an architectural firm? How can we reimagine the whole while at the same time keeping the existing paradigm running to meet immediate demand? It takes the complete, unwavering conviction and unrelenting efforts of at least one person in the organization to start the process. That individual must have a compelling logic behind those convictions and a strong vision in order to have any hope of altering the organization's momentum.

This strong vision is not the same thing as a concretely defined end product, a completed new puzzle. The end product cannot be concretely defined in advance, because the definition of these details is a part of the process of that vision's collaborative refinement and realization. A new paradigm is too large an endeavor for one mind, and this is where the broader capabilities of a large organization, as well as collaboration across a broad spectrum of disciplines, are needed. The vision defines where we need to go, the new puzzle, in terms of its character and some of its key ideas. This is used to generate

the organizational momentum that is needed to realize it without defining every piece, or giving others a step-by-step path.

Throughout all this is the understanding that we can't get to a successful tomorrow by "tuning-up" today, and that we have to motivate others with a strong vision of a fundamentally changed future. We need a willingness to lean forward, to be a little off-balance, and to take some personal and professional risks to get there.

One way to explore foundational change within an organization is by proposing very different functional requirements for an aspect of our world and then challenging others by asking, "what if..." Our firm undertook this exercise at a Council of Educational Facilities Planners International conference last year. We challenged the attendees with the question "What if there were no fossil fuels now?" We asked them to describe solutions for the existence of schools under this scenario, dividing those solutions into building construction and operation, transportation, building grounds, and their food supply. It forced the attendees to realize how the use of fossil fuels permeates every aspect of our educational system, and how that system would need to radically change in their absence. Asking an extreme question such as this forces us to think about the broad-ranging implications of foundational change, and forces us to realize that paradigm stretching eventually fails.

Although change can start with one, it must be embraced by their organization to succeed. Almost all of our business and educational organizations have a tiered pyramid structure, with the identity and uniqueness of the organization determined not according to each individual democratically, but rather by the combination in each individual of strength of conviction, charisma, persuasiveness, "rightness", and not least, by the weight of their opinion given by their position in the hierarchy. So, change moves large organizations more easily, with fewer proponents, if it comes from the top tiers. If change originates from the lower tiers, more individuals must promote it, must be more persuasive, and run the risk of being ignored by the top tiers. Effective change must occur holistically within all tiers of the organization, with a particular importance placed on the resoluteness of its upper tiers.

The creation and implementation of foundational change in a large organization, or even in a society, takes the cooperative effort of many individuals with different strengths, united behind a common cause. There are three primary types of individuals necessary for success. The first is the vanguard. These are the people who are the first to climb out of the rut and look around, map what they see, and provide a vision for the new puzzle. The second are the organizational motivators. They take the report from the vanguard, understand its value and implications, and form the broad networks and organizational systems to further develop it. The third are the implementers. They are tied to the organizational motivators through societal or business hierarchies, and step into the new puzzle last, to bring its ideas into wide-scale use. The implementers may not understand the new puzzle in its entirety, but are required or compelled by the organizational motivators to fulfill specific tasks of implementation.

Starting with One

Now, if you have identified yourself as part of the vanguard or the organizational motivators, you may be wondering how to implement foundational change when you seem to be trapped in your paradigmatic rut by the requirements of the day-to-day. For me it is easy, but I am the exception. I function partially as a catalyst for change. I have an easier time jumping in and out of the rut. I'm back in the rut in some project environments, but always advocating stepping out from the rut. But what if the rut is your entire life, what if the demands of others or the requirements of your business force you to stay in that rut? Then it is not easy.

You have two choices: Drop everything you're doing, exit your organization, and start over again, building a new puzzle from a blank slate. Or, work from within your current organization on a new puzzle while still addressing the exigencies of the old. Certainly the first is appealing. It's the path of Thoreau, of untarnished idealism. In many ways it's also the easier, faster path. But, organizationally "going off the grid" will never achieve the scale of change that is needed, especially from the perspective of architectural sustainability or the evolution of our educational systems. Our best use as the vanguard and the organizational motivators of change is to leverage our efforts via our organizational systems. Though it may occur slower than we would like, mostly due to the time taken to convince, teach, or compel the implementers, working from within existing systems is the only path to widespread change.

When we're stuck within the conventions of our daily world, one of the keys to realizing deep change is to create an inner "change compass" within us that is tied to personal values. Embracing change is not something that's layered on what we have to do, it has to be part of who we are. Although I am embodying this in the form of a compass, it is more than a simple directional pointer; it has shades of meaning unique to each of us and a strong resemblance to a sort of internal fire.

Latching onto change because it's the popular thing or because we think it will create a successful business for us is not the spirit that makes it rewarding or allows us to hold

onto its concepts through difficult periods, particularly if we're involved at the front end of its development and want to participate actively in it. It's a passion, and that quality makes foundational change a very unbusinesslike thing. If we're really passionate about something we will pursue it at personal and professional cost. We'll make our life about it. Profit may come out of it, but the real thing that makes it worthwhile is our quest to align the world truer to our own compass. It's not the blessing of others or the successful business that's created from it, although a successful business follows more easily when we're truly passionate about what we do. It gives our business a soul.

The success of each of our change efforts depends on the type and truth of the compass bearing we have created within ourselves. The hardest thing is pointing that compass. We have to ask ourselves what we really believe, what we want to change, what we want your lives to be about. The secret to keeping that compass true without great effort is to tie it to our deepest values. It may waver at first while it finds its true bearing, but its needle will become steadier as we see ways to incrementally align our work with that compass, or participate in the work of others to collaboratively create foundational change outside of our paradigmatic rut. We sense that compass, even when we are not directly following its bearing. I can feel it, and it has urgency, even when I am engaged in other things. That change compass helps us to understand our day-to-day life within our larger, more altruistic vision, and helps us to see ways to align the two.

Some people find the bearing of their compass outside of their profession. This is better than none, but much less rewarding than one that provides a singular direction for our professional life, our private life, and our personal interests. Finding our compass bearing may be difficult, but the rewards are worth the work it takes to identify it. That is the gratification of a holistic purpose and the integration of work and life.

My compass bearing gradually developed from continually noticing things across a broad spectrum. The value we place on the wrong things. Our attitude towards the natural world. A wrongness in the way our lives are structured and how much time we spend on things that are not deeply meaningful, but instead follow the conventions that our societies have created. A feeling of dis-integration at many levels. A willingness to say "I want to change the world" in an intentionally naïve way. These are very personal things

that sound clichéd when they are expressed to others, but they live within at a depth and shade of meaning that is difficult to explain in a properly nuanced way. I know that these propositions are filled with the potential for failure and are very hard to complete in a lifetime, but they are rich with opportunity. Even if we know we cannot accomplish the change that aligns the world with our own compass bearing, just coming to an understanding of “this is the way that I feel the world should be” puts one at peace. We can say, “I’ve defined what is wrong and I can work in my own small ways to change those things.” There’s a feeling of purpose in defining the way we would like the world to be. Then we know how to appreciate what’s right in the world and where to focus our efforts to change what’s wrong in the world.

There is one further distinction that needs to be made in both the personal and organizational implementation of foundational change in our day-to-day life. I have previously described foundational change as throwing out the old puzzle and finding a new one, but this is an oversimplification. We never really have the opportunity to immediately enact such broad change. In reality, foundational change is an incremental process. There’s a transitional period when we’re fitting together and implementing parts of the new puzzle as pieces of foundational change within an existing paradigm. That transition period is where we have the ability to embrace foundational change while still fulfilling the obligations of our existing paradigm rut. In architectural sustainability, it may be a particular piece of foundational change that’s in a project we are working on: the opportunity to design a zero fossil fuel energy building, or to incorporate a few truly sustainable construction materials. In the evolution of educational systems it may be a single program that meets the ideals of the 21st century, or a section of the school building that exhibits a new organizational precept. In these ways, we are implementing pieces of the new puzzle within the old puzzle. With time, more and more of the old puzzle is removed. This is not to be confused with additive change, where pieces of the puzzle are replaced without changing the overall picture that is portrayed by the puzzle. Instead, we are engaged in a process of building a new puzzle that replaces the old. We need to carry within us a vision of the completed new puzzle throughout this process.

By no means have I provided a step-by-step guide for foundational change in this paper. “Foundational Change for Dummies” is a book that can never be written. I have sought

to explore the territory and the mindset, differentiating the change we hear about all too often from that which is really needed. And it is needed in many aspects of our world, not the least of which are deep changes in the way we interact with our natural resources and the evolution of our educational systems. Foundational change is difficult but necessary, and its rewards are great. It's an endeavor that can define us individually and collectively far beyond our lifetimes. It is meaningful on a personal, social, and historic scale. Don't sell its potential short by thinking a quick-fix or a bolt-on approach is all we need to be prosperous in the 21st century.

We all need to get out of our paradigmatic rut and take a look around, even if it's only for a short period of time. We need to see the potential of foundational change to improve the world-at-large, beyond our immediate lives and professions. If you can't see it at first, ask for the guidance of others who have done the same and returned with passionate convictions.