



THOMAS GLUCK

Interview



Inspired by the tradition of Adirondack Great Camps, this modern family retreat is nestled into a heavily wooded and steeply sloped lakefront property in Upstate New York.



A "tower house" stacks bedroom suites to lift the living space up to the view above the trees.

P47 Could you describe the approach of GLUCK+ and how it differs from the status quo of the profession?

TG Our attitude starts with a global perspective on where the profession has been, where it is right now, and where it's going. What's happened over time is that through trying to limit professional liability and reduce risk, the profession has also limited its own role and capacity to engage effectively.

Sometimes we talk about architect-led design-build as a strategy to regain control over the building process, but "control" can conjure up a desire for complete power. The control we're interested in is instead the ability to follow the clients' interests and the conceptual underpinnings of a project through to completion. As the architect retreats back to an increasingly narrow realm of influence, he or she limits the ability to craft a building that truly serves the client and the urban, social, and economic contexts.

P47 Does this produce a conflict of interest? Isn't it the architect's job to advocate for a better project even if it may cost a little more, while the contractor's interest is to build as cost-effectively as possible?

TG By dissociating from the larger building process, the architect is actually less equipped to look after the client's basic interests. The knowledge that comes from the building process has been lost because the architect simply does not see construction as part of his or her scope or area of expertise.

P47 Why is this a problem?

TG Architects don't know what they are drawing! Many have no idea of the cost implications of the details or understand that they may have far-reaching implications that make them very difficult to achieve. Over time this problem compounds exponentially and contractors get drawings that can't be built. The contractor's job becomes not just to build cost-efficiently but to figure out what they are building in the first place. So many architects do not know how things go together. So what do they do? They rely more and more on systems of products and packages of wall systems as well as engineers to design mechanical and structural systems. There may be a minimum level of quality that's guaranteed in specifying systems, but there is often a huge added cost too.

Many architects simply don't see construction industry information to be in their area of concern. But we depend on the architect to be fully equipped to look after the primary goals of the project: what the program is, what the building wants to be, and how it fits into its site, the larger context, and the big picture. These issues matter to the architect, and to many contractors they do not. They simply don't. They don't consider these issues,

and they are not asked to consider them. It's just not part of their job. And the architect doesn't know how much materials or details cost because that's not considered part of the job.

This divides the project between the front end, the design of the building, and the back end, the construction of the building. It is a completely artificial line, and it doesn't serve the project or the client. It often behooves the project to have an architect thinking about what it means to excavate on a narrow site, for example, to be able to design an appropriate solution for the problem. There are times when it equally behooves the client to have a contractor that really understands the big picture so that if a compromise has to be made they can err on the side closest to the larger design goals.

The worst thing about this divisive system is that the party left to mediate between these two frequently warring camps is the client, who typically isn't an expert in design or construction. Clients are teachers, doctors, and businesspeople who have their own professions, knowledge, and expertise yet they are asked to act as the arbiter between these two worlds. It's crazy.

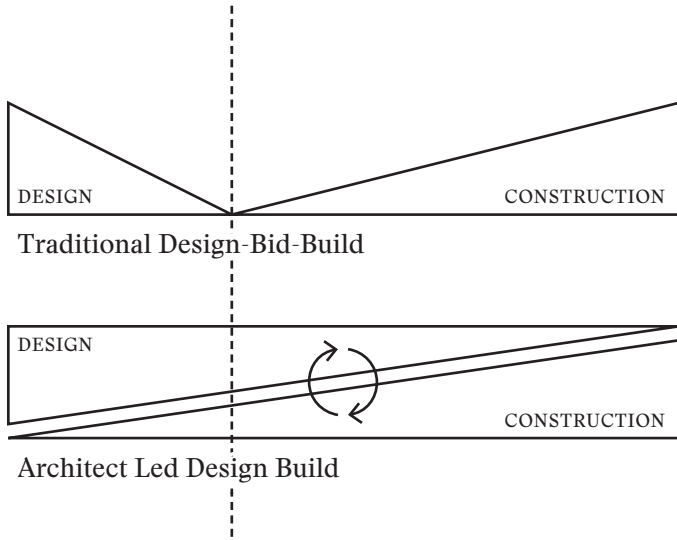
This is why single-source responsibility can be advantageous to all parties involved. We hold both contracts: we're the architect and the builder, with two distinct legal entities under one roof. We take all the design and construction information. There is still the potential, however, that even in one firm you could have designers that are just designing and contractors that are just building. Indeed that doesn't address the real problem when designers still lack the knowledge of how things go together. The key in architect-led design-build is continuity of the players.

At our firm the people who design and conceive the architecture are the same people who have had experience in the field, and they will be there to see it all the way through. For us, the knowledge sets have to be not just in the same team but within each individual.

P47 How do you do that?

TG Obviously there is a lot to know. It's hard enough to be just a good architect or contractor; but there is nothing that precludes a great designer and architect from knowing how buildings go together. I should note that we have all architects in-house. We tried hiring contractors and trying to get them to understand the architecture end of it, but that didn't work. The only reason architects can't understand the details of construction is because they are unwilling.

Peter Gluck often talks about architects as a hugely underutilized resource: at its core, architecture is solving problems on various scales. Construction is the same in that regard and can benefit tremendously from an architect's skill set. If you can deal with the conceptual problem, the urban problem, and the cultural problem, then you can certainly handle the technical aspects—as long as you are willing to try.



There are lots of people who wouldn't be able to work in our office because they just aren't interested in the construction side of it. Conversely there are lots of people who may be adept at solving technical problems but can't engage the front end. Having a brain for both is the most important part. So most people in the office, all of the principals and almost all the more experienced people, actually run a job on-site from morning until night as project superintendent. That information circles back.

P47 How does your insurance company feel about all of this?

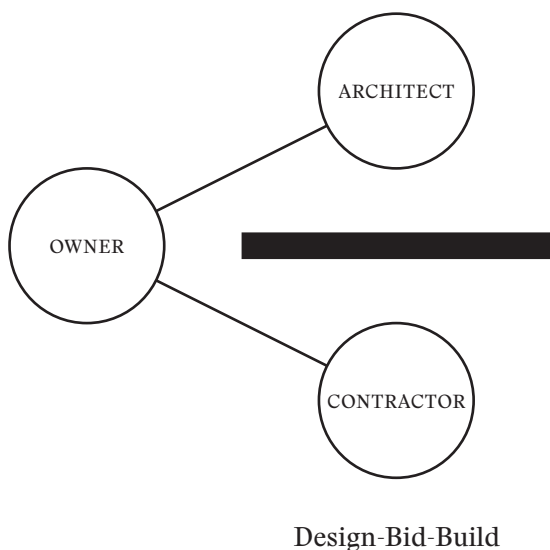
TG They love us because they feel confident that we construct buildings with fewer problems. If a building leaks, for instance, we take responsibility. In the traditional system, if there is a problem the architect and contractor fight it out and the architect attempts to prove it's the contractor's fault. This creates an incentive for the architect to show nothing about how things get waterproofed, for example. The division puts all the responsibility on the contractor so they can't be held accountable. They just include the note "waterproof" and make it the contractor's responsibility.

P47 How does GLUCK+ deliver projects? Does the client engage one entity or two?

TG The financing is structured very much in keeping with the traditional system. We have a contract with the owner as the architect and a separate contract with the owner as construction manager. The contracts are written with the understanding that we will be the architect and the construction manager, but they don't have to commit to that upfront. This gives the client a time to get to know us and understand the system. It's structured so they can potentially hire one and not the other. No one is held hostage.

The architectural fee structure is based, as it typically is, on the cost of construction and is broken into phases. We have different phases than the standard AIA contract because of the way we work. Normally there is schematic design, design development, construction documentation, and construction administration.

We do schematic design and then we jump way ahead, doing bid drawings and sending them to the field to get pricing and feedback from the tradespeople early on. We get early feedback both in terms of cost and of ways to build things and what's appropriate for the specific time, place, and economy; what is appropriate in one location might be totally different for another, and we build all over the country. We find out what specific new technologies tradespeople might be aware of that we are not, or that they are aware of but the engineers are not. Similarly we are made aware of specific resources available to them that we didn't know about and might consider. We do schematic design then send out a construction document or a scope set for pricing and that gives us pricing feedback. If a product or process is too



Design-Bid-Build

expensive, we find this out in schematic design more realistically than in the traditional way.

In the traditional process it is not uncommon for an architect to do schematic design and get a construction manager to provide preconstruction services, but there are two difficult parts to that. First, estimating is usually more imprecise because there are no documents that could really be bid. Usually they have only schematic design drawings of a building that's still being developed. Second, the only way for an estimator to go wrong is by underbidding; estimators generally overbid to compensate for lack of information. By doing this early construction document set, we get information early enough to make adjustments and even change the basic concept of the building, if necessary. In common practice, the cost adjustment happens at the end of the project through "value engineering," after everything has been coordinated and worked out—and then it becomes an exercise in scaling back finishes. Our position is that if you had this information early enough, you might have designed a different building.

P47 Are you making more money with this system, saving your client money, or delivering a better product for the same money?

TG We're delivering a better product for less money and making more profit. It's a trifecta. There really is that much waste in the design and construction industry today. But the clients benefit the most.

Take, for instance, the East Harlem School: a big gym space we originally designed to be buried deep in the ground with a big open level at grade to create a public gathering space as an essential component of the building. We did our first construction document set and found out that the cost of the foundation was exorbitant because of the poor soil in East Harlem and because the site lies in a floodplain. If we had found this out only at the end, the client would have had to stop the project. You just can't make up that kind of money with value engineering.

We would have had to come up with more money or cancel the whole thing, after having already invested a huge amount of time. So we got the feedback early in schematic design, and before we spent any significant money we were able to fully redesign. We realized the gym had to be higher, so we changed the premise so it was split. It still has public and private sides, but there are two halves. We were able to update the architectural concept to make it more appropriate for the client. Is it a lesser building architecturally because our pure initial concept wasn't realized? No. It was a much better building because we refined the architectural idea while taking into account real site conditions, and the client is happy.

P47 Are your fees still based on a percentage of the overall budget?

TG It's still percentage-based. The construction management fee brings in a huge cash subsidy. Even if our

architectural fee remains the same, the architecture business is subsidized by the contracting business. No one bats an eye at the five, ten, fifteen percent overhead in profit that goes into construction, not to mention all of the hidden profits rolled into "contingency." That money subsidizes the architectural work. We don't do the architecture at a loss: the profit margin is small but typical. So with the influx of money from the construction management, the firm overall does very well.

P47 Just how much more profit do you get as a general contractor?

TG Much, much more—that's just the way the industry is. In case you're not aware of the relative profit margins between owner, contractor, and architect, there's a quote in the AIA Handbook of Professional Practice relative to liability issues on a project. I think it's informative, and I'm quoting it here:

"For example, suppose an owner wants a factory designed and budgets \$5 million for construction. The owner expects a minimum 10 percent rate of return, or \$1.5 million, on the facility, which will have a thirty-year useful life. At the end of thirty years the building will still have some utility and can be sold. The contractor expects to earn a profit of 10 percent, or \$500,000. For design services, the architect may bill 6 percent of the construction value, or \$300,000. From that \$300,000, the architect hopes to earn a profit of 10 percent, or \$30,000. With the potential exposure to claims and lawsuits, ever-rising expectations of perfection, shrinking budgets and tightening schedules, a profit of \$30,000 is the best this firm can possibly expect to achieve."

P47 If the architectural profession gave away the responsibility to a general contractor to avoid risk, then does your approach put you more at risk?

TG No, we have two separate insurance policies—one to cover the work we do as architects and one as a contractor. When we act as a contractor, even though we're the same person, the same head and hands, we're doing that as a construction manager and are covered specifically for that. Contractor's insurance costs significantly more than architectural insurance because there's a lot of risk involved.

Getting contractor's insurance is hard at the beginning because no company wants to insure somebody who says, "I'm going to get into the contracting industry!" So we started small and built it up. We have a track record from roughly \$200 million worth of business by now. Our contract insurance rates have gone down; and, in terms of the fee structure, construction insurance is a line item that is paid for in general conditions by the client. It doesn't come out of the fee. Usually architects have to keep track of their







The East Harlem School, a new building for an independent middle school.



A guest house in the Rocky Mountains integrates into and accentuates its mountain environment.

fees and make sure they pace their design accordingly, but because we know that there's this big chunk coming down the pipeline from the construction management fees we're actually able to spend more time designing.

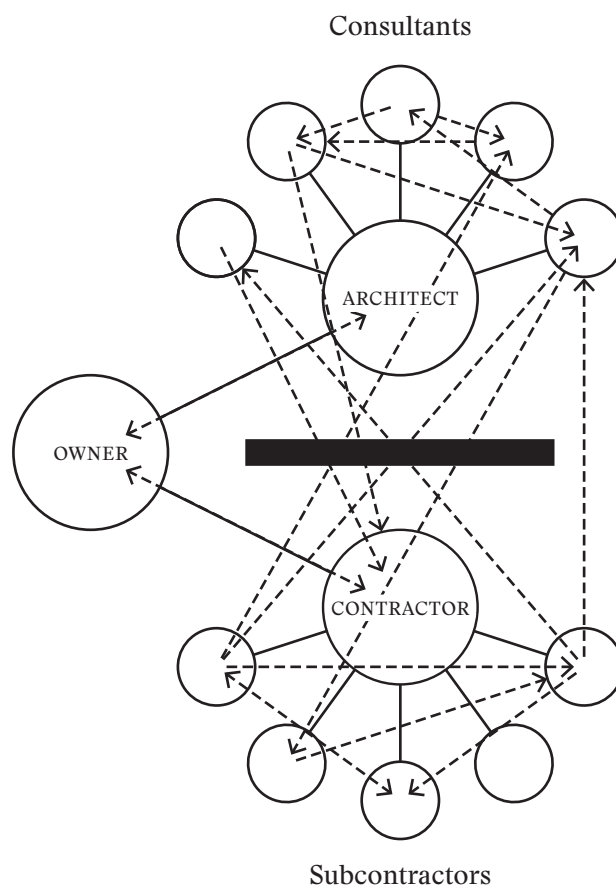
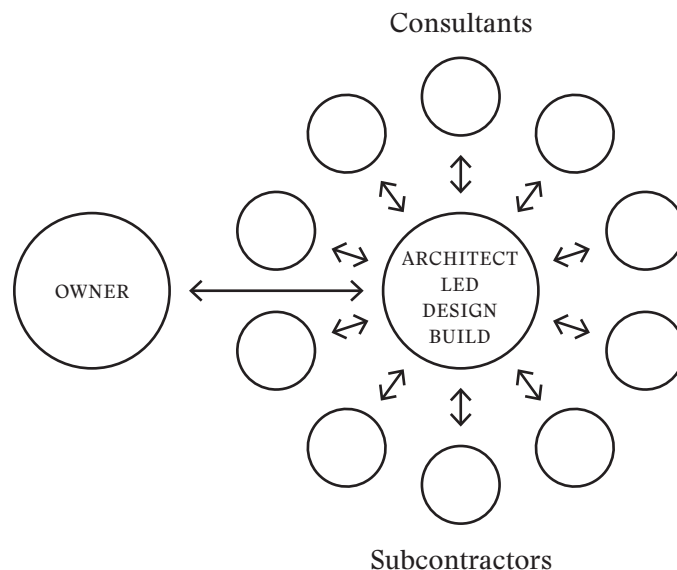
P47 Current law mandates an administrative split in the firm; even though you're the master builder, you have to call yourself an architect and a contractor, and the two remain legally split. Would there be any benefit to doing away completely with this legal division?

TG No, it's actually in our benefit to keep them split because we've separated our responsibilities and are taking advantage of the fee structure of construction in the United States. There's no downside to it because we haven't separated into two groups of people. Having two company names is meaningless; it's simply on paper. What we would never do—would never want to do because we would lose all the benefit—is to separate into two separate groups of people. That would take us right back to where we started. We want the same person to be thinking about the design and building.

P47 Do you ever work for equity?

TG We're doing that now. Ninety percent of our practice works where we're the architect and construction manager, but we are always looking to be involved even more. So we've done projects where we're the developer and architect and contractor. Take, for example, an affordable-housing project in Aspen, for which we found and bought the land, looked at market value, designed, and built. Aspen has a big affordable-housing subsidy program. We were interested in that, so we approached the city, worked out a deal, got financing, designed and built the whole project, and that was turnkey from conception to completion. The city gave us \$5 million and we took care of everything else—built the building, gave the city the key. We had fourteen affordable units, and that was it. The city gave us the subsidy and dealt with finding all the tenants through a lottery (more than a hundred people signed up for the fourteen spots). It's the same basic premise; it's not about control or ego or megalomania. As an architect that understands construction as we do, you start looking at potential developments with an eye for architectural opportunities. If you're just a developer looking at land, you have only a small toolbox to pull from and analyze these things. As architects we are intellectually committed to providing affordable housing. It is one of the impulses that define "the modern."

It wasn't that we didn't go to other experts or consultants in the field for advice. Nevertheless we are the ones pulling it together, digesting it, and analyzing it against the goals of the project. It's the coordination, analysis, and decision-making that is really at the heart of the architect's practice. We are careful not to handicap



ourselves by trying to do it all, so we hire people who do financing day in and day out to work in the office and run the numbers. We understand basic financing now, not the most complex stuff, but enough to serve our developer clients because we know what it's like and we're not just gunning for them to spend more money on the facade, regardless of what the benefit is—that's irresponsible! That's how architects earn poor reputations.

P47 It's clear that a lot of waste is avoided in the design process, but does that also translate to the construction?

TG There's definitely less waste from the RFI question tree. One of the most onerous and wasteful parts of the process is converting the drawings to reality, for example, translating a complicated geometry to the site or understanding offsets for framing so that finishes align. However, the architects who drew and designed it can do it very quickly.

On a normal construction site there are thousands of questions that come up about how something should be done, a small percentage of which run through the entire tree: a tradesperson asks the master plumber, who asks the head of the plumbing company, who goes back to the general contractor, who sends it to the architect, who asks his mechanical engineer, who sends it back to the plumbing department, and the plumber answers the question. All of that takes weeks, even for just one little problem. There are a significant number of questions that can be answered immediately by the person who designed it if he or she is on-site. One can also find unanticipated opportunities while on-site, for example: if we can put the chase on one side then we can include that extra closet we were talking about. That sort of thing is too cumbersome through the normal processes.

P47 Is this made possible by technology? Could you work with this business model if everybody had a pencil in hand?

TG Yeah, of course. Right now we are not using BIM, although we're about to engage it. There was an article where we were called the analog version of BIM, which is basically a tool. If architects no longer have the knowledge to understand what trade comes first they can draw and draw and draw, but it's garbage in, garbage out. BIM is not going to solve anything. You're not going to be able to solve a problem of knowledge with a tool.

P47 Are change orders not a part of the business model for you anymore?

TG We still have change orders because there are always things that can't be accomplished. There are two types: things that can't be foreseen (those are the easy ones—nobody has a problem with them) and those that could have been foreseen but weren't. What we know in

this system is that we can't resort to hanging the architect out to dry to maximize profit because we are the architect.

P47 Do you have to invest a lot in educating your employees?

TG Yes, and we see it as not only a necessity but a responsibility. We have an opportunity to effect change in the industry. The teaching and training that goes on here is something that we do because we need to and we believe in it. We don't expect everyone to run their practice this way, but there are a lot of benefits. Even if our staff members work this way only while they're with us, when they go off to practice in the traditional way they'll be much better architects—more responsible and better qualified having done it at least once and having understood it, even if it's not for them. The investment we make is one in our profession as well as our office. Obviously we do it partly because we need to for the firm, but we also do it because we believe it's the right thing for the industry.

P47 Do you have words of encouragement or warning for firms that are considering the same route?

TG Peter Gluck spends a lot of time speaking and helping other firms that are trying to do this for the first time. People always come up to him and say, "Gosh, it's so amazing, it's so clear, what do I need to do it?" His answer is always the same: "Just the courage to do it." That is the bottom line. It takes courage, and he has it. He's not intimidated by the prospect of building. Way back, his class was the catalyst for what would become the institution of the Yale Building Project. The building project culture was basically started at Yale. All the architects lived together, working in the studio and going to school, and then in the summers they would build. They designed and they built. And that's what was happening in the early 1960s when Gluck was at school.

When he started this firm, we were doing all the work and not being compensated for it. We were basically running job sites trying to protect the architecture without any real responsibility or reward. At some point we realized that it was just insane—"I half-built this building, so why don't I just build the building?" Gluck has no problem doing something that's obvious even if it's scary—he did it, and we've been doing it since.