Architecture Razzle-Dazzle

The future of the architectural

profession rests on more than

eye-catching design.

architects THE BEST-KNOWN today are very well-known indeed. Frank Gehry is an international byword for eye-popping design; Michael Graves has achieved the status of a household name, thanks to his product design for Target; and I. M. Pei, although retired, is still most people's idea of a master architect. The work of each is quite different: Gehry regularly produces buildings that look like big sculptures; Graves' colorful version of postmodernism is instantly recognizable; and Pei has been a geometrical minimalist throughout his long career, most recently in the Museum of Islamic

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Art in Qatar. There are many more architectural stars than these three. Norman Foster and Renzo Piano are perhaps the most versatile, responsible for airports, skyscrapers, stadiums, bridges, and museums. Foster's latest work in the United States is an opera house in Dallas; Piano is designing his umpteenth American museum expansion, in Boston. Foster and Piano are associated with the so-called high-tech style, producing buildings that are thoughtfully planned, meticulously engineered, cleanly detailed, and carefully constructed. The French architect Jean Nouvel is less predictable; a skyscraper in Barcelona looks like a shimmering silo, another one proposed for New York resembles a glass stalagmite. Rem Koolhaas likewise varies his designs—a library in Seattle resembles a greenhouse, and a theater in Dallas an opaque box. Swiss architects Jacques Herzog and Pierre de Meuron are minimalists, but they tailor their designs to the job at hand: an Olympic stadium in Beijing that recalls a bird's nest, a museum in San Francisco in a coppersheathed box, and a football stadium in Munich that looks like an inner-tube. Robert A. M. Stern, who has recently built both an all-glass modernist office tower for Comcast and a traditional brick Georgian campus center for the Harvard Business School, is an eclectic.

The unusual increase in the number of architects whose names are recognized by the public is the result of media attention and client demand. After the phenomenal success of Frank Gehry's photogenic Bilbao Guggenheim (Figure 1), which opened in 1997 and became an instant international tourist destination, other art museums strove to emulate what became known as the Bilbao Effect, Iconic buildings, it was argued, increased attendance and assisted in fund-raising; for failing cities, they stimulated urban renewal. The results did not always bear out these aspirations; nevertheless the allure of the Bilbao Effect proved irresistible—and spread wide to other cultural institutions such as symphony orchestras and public libraries. Department stores built signature buildings to attract shoppers, and universities hired high-profile architects to please—or attract—donors. New or lesserknown universities hoped that the attendant publicity would raise enrollments. Even established educational institutions were prepared to go out on an architectural limb in order to reinforce their image as an up-to-date patron of the arts, as MIT did in recently commissioning two iconic buildings.

The publicity value of an iconic building was particularly effective when the architect had a distinctive personal

Figure 1: Bilbao Guggenheim (Frank O. Gehry & Associates and IDOM, architects)



Photo: Samuel Negredo

style—jagged crystals Daniel Libeskind, skeletal forms for Santiago Calatrava, zoomy shapes for Zaha Hadid. The signature building phenomenon also proved attractive to developers, who discovered that the name of a well-known architect could be a marketing tool. In the 1970s, Gerald Hines had worked with architects such as Philip Johnson, I. M. Pei, and César Pelli to produce Class-A office buildings—so-called trophy buildings-whose architectural quality was part of their appeal and translated into higher rents. The signature building phenomenon is slightly different. The appearance of the building is only part of the attraction. The recognizable name of the star architect is the other.

The unexpected rise to prominence of some architects is also a result of the changed nature of the modern building process. Large buildings are challenging to design and build not only because of their size, as in the case of an airport or a convention center, but also because of their complexity. Myriad issues must be addressed: structure, environmental impact, energy conservation, mechanical communications, lighting, systems, acoustics, security, and movement (in tall buildings, elevators are a sub-specialty by themselves). The architect risks losing his traditional role as master builder and being absorbed into a crowd of experts, becoming merely a sort of stylist. Although buildings are designed by teams consisting of scores of specialists, the process always begins with the client and a small group around a table. How has the architect ensured a place at that table?

Some architects have gained a place even an important place-by focusing on design, staking out the creative domain and leaving technical concerns to consultants. In this strategy, they are emulating the success of fashion designers such as Yves St. Laurent, Giorgio Armani, and Karl Lagerfeld, who have translated their status as couturiers to the mass-market with a wide assortment of consumer products: clothing, perfume, eye-glasses, luggage, and home furnishings. An analogous emphasis on the designer architect has brought popular recognition to many individuals, which, in a celebrity-obsessed age, has translated into a real sort of power. The attendant publicity is not entirely fortuitous, of course: most large design offices now have a public relations department to promote and disseminate the image—and brand—of the star architect.

The opposite architectural response to dealing with complexity has been to embrace it. Not many people have heard of Art Gensler, who in 1965 co-founded the architectural firm that is now the largest firm in the world (more than 3,000 employees before the recession, and about 2,000 today). Only a handful of American firms are of comparable size, among them HOK, Perkins & Will, Skidmore Owings

and Merrill, and RTKL. According to the American Institute of Architects, almost 80 percent of AIA member-owned architecture firms had fewer than ten employees as of the end of 2008, with just 2 percent of firms reporting 100 or more employees. The largest 2 percent of firms accounted for 30 percent of all employment and more than a third of all billings. Large firms are able to expand their array of services to cover more of the building process, adding engineers and project managers to their staffs, for example, offering programming and post-occupancy energy monitoring, and specializing in so-called green design. This expansion has brought not only a high level of technical competency and the resources to pursue innovation in ways not previously available to architects, but also institutional continuity and financial value. (Norman Foster recently sold a minority share of Foster + Partners, which he founded in 1967, to a London investment group.) What might be called the "design-as-problem-solving" model of architectural practice has also been adopted by mid-size design-oriented firms such as William Rawn Associates in Boston, which Architect magazine recently named the top architectural firm in the country (Figure 2); KieranTimberlake Architects in Philadelphia, which received the AIA 2008 Architecture Firm Award; and Diamond + Schmitt in Toronto, which was recognized in 2009 by Deloitte, the Canadian

Figure 2: '62 Center for Theater and Dance, Williams College (William Rawn Associates, architects)



Imperial Bank of Commerce, KPMG, and the Queen's University School of Business as being one of the fifty best-managed companies in Canada.

EXECUTIVE ARCHITECTS

Clients wishing to build signature buildings often face a quandary. The architectural star may be based in another city—or another country—and may be unfamiliar with local conditions, building codes, and construction practices. Moreover, not all star architects have a wealth of practical experience, nor do they necessarily have expertise with the

type of building that the client requires. The architect's firm may be simply too small to produce construction documents and construction administration required for a large and complex project. A common solution is to pair design architects with local, production-oriented firms. The design architect develops the design, and the production architect does everything else: preparing construction documents, engaging the sub-consultants, and managing the building process. (This distinction has long been institutionalized in some European countries such as Spain and France, where bureaux d'études prepare building designs and then pass them on to bureaux d'études

techniques, who prepare construction documents and supervise construction.) The production firm also acts as architect of record, assuming professional liability for the technical aspects of the building. The architectural fee is divided between the two firms, with the production architect usually getting 50 percent or more.

The design architect/production architect model is relatively recent. Before the 1980s, it was rare for leading design firms to associate with production firms. The firm of Eero Saarinen, for example, which built all over the United States in the 1950s and 1960s, generally did all the work itself (although it did associate with local firms in the case of U.S. embassies in London and Oslo). During the 1960s and 1970s, the I. M. Pei firm, which was also active nationally, likewise rarely felt the need to associate with local architects. But by the 1980s, it was not unusual for nationally recognized design firms to have local associates, which allowed the design firm to undertake more projects without enlarging its office. The associated architect was usually called the "executive architect," reflecting the fact that the management of the job was in his hands. Most recent high-profile building projects in New York City have seen a pairing of design architects with executive architects: 15 Central Park West (Robert A. M. Stern Architects with SLCE Architects), The Centurion (I. M. Pei with SLCE

Architects), Blue Building (Bernard Tschumi with SLCE Architects), IAC Building (Gehry Partners with Adamson Associates), 100 11th Avenue (Jean Nouvel with Beyer Blinder Belle), the New York Times Building (Renzo Piano Building Workshop with FXFowle), and the Hearst Tower (Foster + Partners with Gensler) (Figure 3). The division between design firms and production firms is not hard and fast. Firms may switch roles, depending on the project—an executive architect on one project may be the design

Figure 3: Hearst Tower, New York (Foster + Partners and Gensler, architects)



architect on another (FXFowle was the full-service architect of the Condé Nast Building on Times Square), and design architects may act as their own executive architects (as Gehry Partners has done on Beekman Street Tower).

There are other reasons for dividing design and technical responsibilities on a project. An executive architect might secure a commission and desire to associate with a high-profile design firm, or vice versa, a design firm without a local presence, or unfamiliar with local legal and technical issues, might desire a local partner. For certain specialized building types such as laboratories, hospitals, and highrise buildings, there might be a benefit to combining firms with complementary skill sets. In the case of architectural competitions, creating a team that pairs a local firm with an out-of-towner, or a large established firm with a hot "boutique" design firm, is a common practice.

Many clients see pairing design architects with executive architects as backstopping unpredictable creative talent with proven technical and managerial experience. Some clients may be attracted by the idea of "creative tension" between the two architectural firms, although it is doubtful that competition is better than collaboration on a building project. It is similarly unlikely that an arranged or a shot-gun marriage between design and production firms will produce a satisfactory result. It is

unclear that splitting responsibilities has any economic benefits to clients in terms of lower fees. While clients may believe that limiting the work of high-profile and expensive—architectural stars is economically advantageous, they should bear in mind three factors: the design architect may not prepare the construction documents, but his fee will—and should cover the time required to review construction documents and shop drawings to make sure that the original design intentions are being implemented; the executive architect's fees will reflect the extra risk of taking legal responsibility for another architect's work; and with two firms there will be an inevitable overlap in the work. which will also add to the cost.

One disadvantage to the design architect/executive architect model is that it assumes that design and production can be neatly divided. This is often not the case. Good design is often based on particular construction details. Rising budgets often result in so-called value engineering, that is, last-minute changes to reduce cost. The executive architect is then put in a position of having to redesign details, which may jeopardize the consistency of the design. Graham S. Wyatt, a partner in Robert A. M. Stern Architects, appreciates the value of associating with other firms but is not convinced that it is always the best solution. "When our firm was younger, smaller and less experienced, we would associate

either because we didn't have the technical expertise to produce the construction documents and administer the construction process, or because the perception of a prospective client was that we did not possess these skills," he says. "We now find that we consistently achieve a much higher quality building, without increase in either fees or building cost, if we produce the technical documents and administer construction ourselves."

Whether or not the design architect/ executive architect model is adopted depends on the type of client, the size of the architecture firm, and the size of the project. Public authorities who are looking for a high-profile design architect may want to include a local architect for political reasons, whereas private clients may have more freedom in this regard. The need of a design architect for an executive architect will depend on the design firm's size and expertise. A small design firm will almost always require an executive architect on large projects, whereas large firms such as Skidmore, Owings & Merrill rarely work with executive architects since they can provide all the design and engineering services in-house.

There is no doubt that having two firms greatly increases the complexity of the job, and it only makes sense if the



Figure 4: Four Seasons Performing Arts Centre, Toronto (Diamond + Schmitt, architects)

project is large. In fact, William Rawn reports that recently he has been approached by out-of-town institutional clients with smaller projects who have insisted that his firm do all the work. Rawn's office frequently collaborates with executive architects, especially for projects outside New England. "We look for executive architects which are also strong design firms, since our typical practice is to involve the executive architect from the beginning of the project," he says. He points out that this collaboration is reflected in the fee structure: the executive architect might get 10 percent of the schematics fee, 20 percent of design development fee, 80 percent of construction documents fee, and 90 percent of the construction administration fee. Rawn believes that having a real collaboration between the two firms in important in achieving quality. This approach to teamwork is unusual; most international stars are not interested in having local architects involved in the design phase.

The design architect/executive architect pairing is not the only model. In 2009, when the Quebec government decided to build a new \$260 million, 1,900-seat concert hall, it followed the usual practice of holding a competition. But the purpose was not to pick an architect or an architectural design, but to choose a consortium that would design,

build, finance, manage, and maintain the concert hall for thirty years, on a leaseback arrangement with the Montreal Symphony Orchestra. The winning team was headed by a giant Montreal-based international engineering firm, SNC-Lavalin, and included Diamond + Schmitt as design architects, a local firm as executive architects, and Aecon, Canada's largest construction company. Diamond + Schmitt had recently designed the acclaimed Four Seasons Centre for the Performing Arts in Toronto (Figure 4), an opera house of which the conductor Valery Gergiev, artistic director of the Mariinsky Theater in St. Petersburg, said, "I was struck by its beauty, its practicality and its friendliness with neighboring buildings, its superb acoustics and of course, its budget." Gergiev was particularly sensitive about budgetary issues since the competitionwinning design for a new Mariinsky Theater by French architectural star Dominique Perrault had just been cancelled due to cost over-runs. As a result of a new competition, Diamond + Schmitt were awarded the St. Petersburg commission (in this case the associate architect is KB ViPS of St. Petersburg).

Although the economic recession has already had a dampening effect on extravagant building projects, it is unlikely that signature buildings will disappear altogether. The elusive allure of the Bilbao Effect is too strong, and the

attraction of using architecture to create monuments to outsize egos is hard to resist. There will always be a few architectural stars, just as there will always be a few Hollywood stars. But there will be fewer than in the heyday of the signature building, for the proliferation of design firms that erupted in the last two decades is unlikely to continue. The future clearly belongs to teamwork. Large architectural firms with deep technical expertise will continue to dominate the field. One would also expect to see more consortiums on the Montreal model, building not only for cultural institutions, but also for universities, hospitals, and governments, as clients seek a combination of design excellence and long-term building performance.