

Careers

in Architecture

CHOICES

PATHWAYS

SUCCESS



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INSTITUTE
OF ARCHITECTS

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The Constitution of the United States of America grants the individual state the power “to guard the health, safety, and welfare of the people.” Registration of the profession of architecture, a function of each state, is an administrative process resulting in the granting of a license to practice architecture.

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IDP training requirements
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Career Decision Strategies

Architects are broadly qualified to practice in a wide variety of roles and settings within the architecture profession and building enterprise. Considering the range of possibilities, the question often comes up: What paths might the new graduate—or the experienced architect seeking a change—take and where might they lead? What happens when new career possibilities or directions are encountered? How do you make the choice?

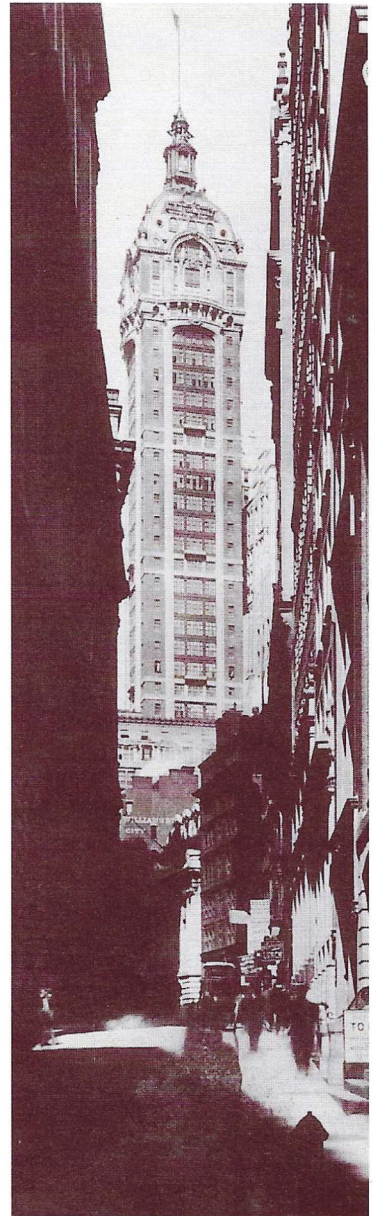
CAREER PATHS

So many roles and settings suggests an abundance of paths into and through a career as an architect. While the path frequently starts at the same place—usually after earning a professional degree in architecture—the number of pathways architects follow on their journey to professional fulfillment is on the rise.

THE FIRST JOB. Finishing their formal education with a passion to become involved in the design and construction of buildings, graduates typically seek a private architecture firm as the setting for their first job. For interns, diversified experience under the supervision of a registered architect in such a firm is the fastest and most typical way to fulfill the training requirements for registration.

Because most firms are small, interns don't often see the first place of employment as the ultimate one. Rather this is a chance to learn as well as contribute, develop the everyday skills of practice, and better understand just where each intern's "place" may be within the profession and the building enterprise.

An internship is, of course, a two way street. The employing firm expects the intern to bring a basic complement of professional skills, to use those skills as quickly and as directly as possible in performing professional services, and to learn how the firm practices architecture. As in any employment setting, the goals of intern and firm may not overlap completely; the secret to a successful internship lies in exploiting and expanding the area of overlap as quickly and as effectively as possible.



Ernest Flagg, architect, Singer Building, New York City, 1908. When constructed was the tallest building in the world.

Some firms take a strong interest in the growth of their interns, pointing toward registration as an architect and expanded responsibilities, leading to those of the project architect. These firms may be active in the Intern Development Program (IDP) and, singly or in collaboration with other firms, create specific opportunities for the growth and development of their interns. For most firms, however, the process is less structured. The challenge of meeting the demands of projects and clients within tight economic constraints does not leave a great deal of time or money for intern development.

For interns, personal professional development is key issue. In considering their first professional position, interns often have questions like these:

What is the firm's basic attitude toward interns? Am I there to "fill a slot" or is the firm interested in my professional growth?

What are my longer term prospects for remaining with the firm? Do interns tend to move on after they are licensed, or do they remain?

Does the firm invest in the professional growth of its interns? Are there opportunities to participate in education programs for interns? Will there be time to prepare for the registration exam?

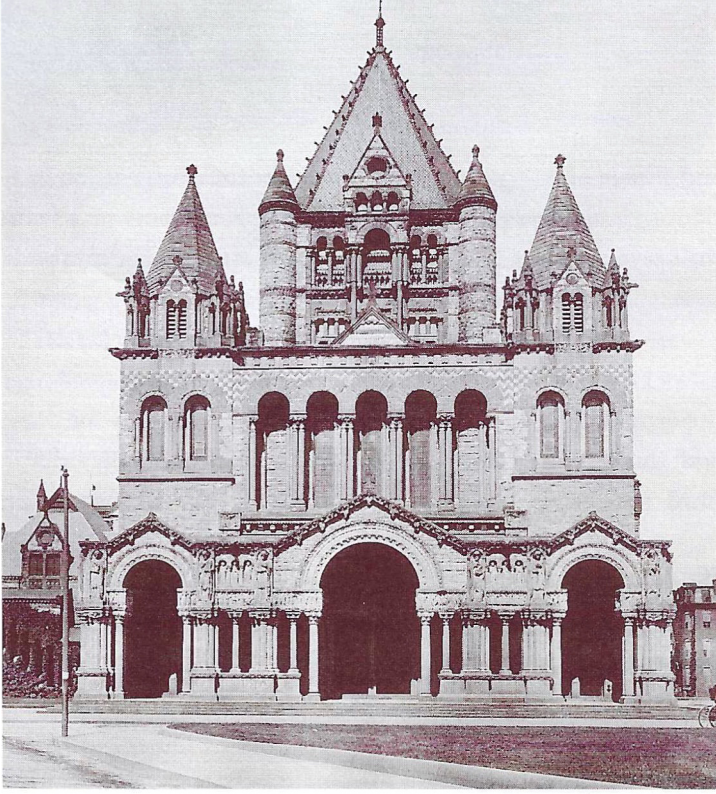
Will I have a mentor?

Does the firm participate in the Intern Development Program?

The answers to these questions don't have to be "yes." Interns consider many factors in selecting a firm. If they are on the path to registration, though, personal growth and diversity of experience are important.

BUILDING CAREERS WITHIN EXISTING FIRMS. As they gain experience, and their registration, many architects seek expanded responsibilities as project architects. As an added feature, or as an alternative to the project architect's generalist posture, other professionals develop in-depth expertise in one of the many special aspects or orientations found in practice.

The career path in the small firm is straightforward: the intern usually gains experience across the board—there can't be too many specialists in a small firm. On the other hand, the firm



**H.H. Richardson, Trinity Church,
Boston, Massachusetts, 1872–1877.**

may offer a limited range of project types, sizes, and scope. After registration and the passage of time, most small firm architects gain a management and/or ownership interest in the firm or leave to join—or start—another firm. If the firm is not expanding, there may be little immediate room for additional management or ownership and, if this is a goal, the decision to leave is inevitable.

Large offices generally design larger and more complex projects. Career paths in these firms depend on their overall approaches to organization and staff development. Some firms have clearly demarcated paths; new staff members are assigned specific tasks and these develop into a specific role—designer, detailer, specifier, field administrator, etc.—over time. Other firms intentionally offer interns (and perhaps other new staff as well) a diverse range of roles and experiences, perhaps in several different parts of the firm. In these firms, the career path begins where the intern's strengths and the firm's needs intersect.

Advancement in the large firm is also a matter of philosophy. There may be formal “career ladders,” where one position leads to another. Other firms take a more contingent approach, continually assessing staff capabilities and interests against the needs of the firm and its projects.

Practices, of course, change over time. Some grow, adding depth in existing areas or introducing new areas of practice. Growth

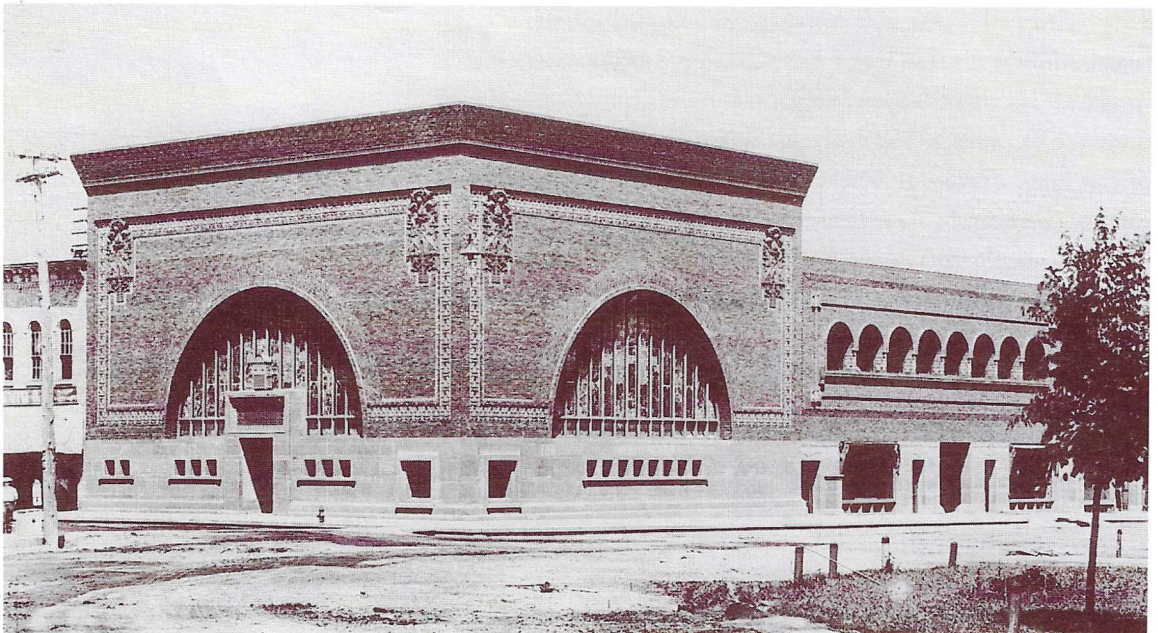
and change often open up career tracks for those who are ambitious to lead. Alternatively, those with special expertise may start their own specialist practices (usually as consultants) or move into other settings that require their expertise.

STARTING A NEW FIRM. Once the architect is registered, opportunities for firm ownership are never too far away for those with this goal. As a profession of small (and often closely held) firms, the goal of ownership is most frequently achieved by starting up a firm, whether as a sole proprietor or in collaboration with one or two others with common aspirations and often with complementary skills. The decision to start one's own firm isn't an easy one, but it's within the reach of those with the desire and ability. About a thousand new firms start up each year.

DISCOVERING OTHER PRACTICE SETTINGS.

Architects—and sometimes interns on their way to registration—soon discover there are many settings in which to develop their skills and interests. Some seek community design and urban planning firms, public agencies, and private community development corporations. Others find the construction environment more to their taste, finding positions with contractors, developers, and building products manufacturers or suppliers. Still others discover they can manage and design projects within corporate, institutional, and governmental facilities offices.

**Louis Sullivan, National Farmers' Bank,
Owatonna, Minnesota, 1907–1908.**



Some career paths lead out of architecture practice and into related activities (such as architectural history, historic preservation, or computer-aided design), allied disciplines (for example, planning, landscape architecture, engineering, or interior design), or related industries (such as computer software development, real estate, finance, or the law).

THE EXPLORATION PROCESS

An architect's education lays a broad foundation. Personal values and goals establish individual aspirations. Working within this framework, an architect acquires experience and builds expertise. All four factors—foundation, aspiration, experience, and expertise—come together to provide a kind of equation that can be used to assess one's position and plan career moves. Consider your own situation. You entered the profession for a set of reasons, and these have probably continued to evolve. You gained a basic complement of knowledge, ideas, skills, and abilities in architecture school. The influence of the last two factors in the equation—expertise and experience—depend, of course, on how far you are into your career and the path you have traveled so far. Facing your first position as an intern, you found—or are finding—yourself relying principally on your education and your general interests as your professional interests take form, and as you gain experience and expertise, subsequent choices become more informed but also more difficult.

SELF-ASSESSMENT. There is no hidden secret to making career choices and finding the firms or other practice settings in which you may be happy, productive, and successful. The process begins with self-assessment: who are you? what are your interests and goals? what do you offer a firm? what are you looking for in your next job? Here's one approach to self-assessment:

1. Critically review your present situation. What is it you most like to do and least like to do? What is it you most want to do and least want to do? What practice roles are suggested?
2. Ask yourself if you need to engage in some capability-building to get where you want to be. Refocusing your experiences in your current position, continuing professional development seminars, and even postprofessional university studies may be indicated.

“

*I am for messy
vitality over obvious unity...*

*I am for richness
of meaning rather than
clarity of meaning.*

”

ROBERT VENTURI

4. Review your resume and your portfolio. Do these communicate what you consider to be your key strengths? What can you do to better represent yourself and what you have to offer?

CONSIDERING THE POSSIBILITIES. With a handle on your capabilities and interests, the next step is to consider the practice settings in which you might most productively pursue your career.

As you turn your attention to specific firms or other design organizations, it may be time to make another list—of organizational characteristics and their importance to you. The list shown represents a start; you might want to use it, modify it, or develop your own. As suggested in the instructions, first rank the criteria and then assess specific firms against them. If you are already employed, you may discover that your present firm meets most of your criteria or could meet them with some changes on their part—or yours. Do not be afraid to see if this is possible before you pursue another setting. Staff development has not been a high priority for many firms and organizations; many know they should do it but are not yet prepared to take the initiative. Your request may bring an offer of assistance.

DOING RESEARCH. If you need to look elsewhere, or this is your first job, then you need to do some research.

- ☞ Look at the firms in the region(s) you are considering. The AIA's ProFile is a good place to start; it provides enough information about a practice to help you qualify—or disqualify—some firms. It also provides contacts and telephone numbers;
- ☞ Check the local AIA chapter office to see if they publish classified listings or maintain a file of job opportunities. Many do;
- ☞ Check local architecture schools. Many employers post job listings in the school—even for experienced people. Some universities maintain placement services for finishing students and possibly for alumni as well;
- ☞ Speaking of the schools, don't forget your classmates. Most schools maintain current addresses of alumni; you may want to scan these for contacts in firms or other practice settings that interest you;

☞ Look around at what's being proposed and built. Who's doing work that interests you and for which you may be qualified? If you are interested in influential firms, look at who and what's being published.

Research is an important key. Not only will it help you identify possible settings, but it will also provide you with the arguments you will need to present yourself to prospective employers. Most are interested in knowing why you selected them and what about their firm or organization makes you believe you want to be a part of it.

APPLYING AND INTERVIEWING. Most of what's said about getting your first job applies for experienced architects as well; your cover letter, resume, and portfolio are important.

Other suggestions include:

- ☞ Make as personal an approach as you can. Firms receive many inquiries and applications. Addressing yours to a person—especially someone whom you've identified as a good entree in your research—is one way of getting a foot in the door;
- ☞ Be as professional as you know how. The way you handle your contact is your first chance to show how you would handle yourself and your relationships with others once in the firm.

TAKE THE INITIATIVE. An example: If a letter is your first contact, propose a follow up call in a week's time. Thus, the responsibility is yours—not the firm's.

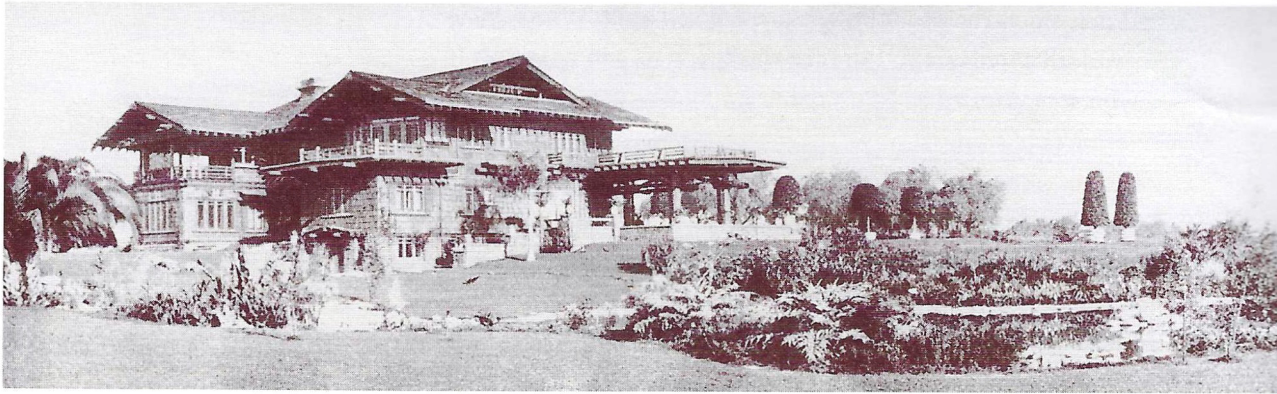
Remember that even large firms may have short backlogs of work; they may not be in a position to hire today but could be two months from now. If your application is rejected and you are really interested in the firm, ask if it's possible to inquire again in two or three months. If the firm gives you an opening, be pleasantly persistent.

When you gain the opportunity to interview, make the most of it!

There is, of course, no magic formula. This topic offers a few general tips and access to some additional help. Talk to architects who have been through the process of changing positions. And remember this great principle: Without risk there is no reward.



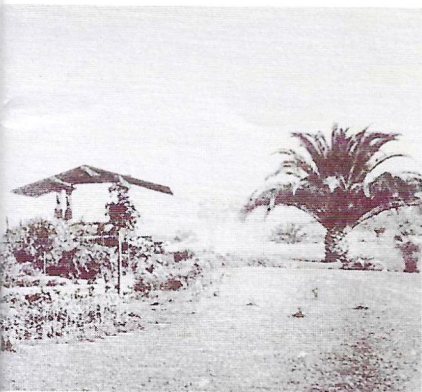
Frank Lloyd Wright, Larkin Company Building, Buffalo, New York, 1904.



LOOKING BEYOND ARCHITECTURE

Sometimes interests and experience lead architects beyond the conventionally defined edges of the profession into other professions and occupations. The aim may be to “function as an architect in the [fill in the blank] field” or to shift disciplines more completely. Very often, a shift in career requires additional education or training, new credentials, or professional registration or certification. While there are no limitations on where or how far an architect may migrate from the field, some migration paths are more common and clearly marked than others. These paths may lead into allied design disciplines such as the following:

LANDSCAPE ARCHITECTURE. Landscape architects are fundamentally concerned with site design, pedestrian and vehicular circulation, plant materials, hydrology, ecology, microclimate, landscaping, and furnishings. The landscape architect is increasingly involved in the design of the urban environment—from small parks to large mixed-use developments—as well as rural, open space, and conservation planning. Although many landscape architects own or work for private firms (including architecture or engineering firms), approximately one-third are employed by government agencies in charge of parks, urban planning, and other recreational areas. Academic programs are found in architecture schools as well as in agriculture, environmental sciences, and forestry colleges. These programs may lead to bachelor’s or master’s degrees and are accredited by the American Society of Landscape Architects. Nearly all states require registration of landscape architects, establishing specific education, training, and examination requirements.



**Greene & Greene, Robert R. Blacker
House, Pasadena, California, 1907.**

INTERIOR DESIGN. Interior design requires expertise in such matters as space planning, finish materials, acoustics, lighting, selection and purchase of furnishings and furniture, and ergonomic and behavioral sciences—that is, the nonstructural aspects of building interiors. Specialties have emerged in the interior design of commercial offices, stage sets, retail stores, hotels, restaurants, historic styles and preservation, ship and aircraft interiors and furniture design. There are under graduate and graduate programs in interior architecture and interior design. Some states license or certify interior designers.

LIGHTING DESIGN. The lighting designer's challenge is to illuminate with purpose, providing visual comfort, efficiency, productivity, and, in some cases, drama. Successful lighting designers combine an aesthetic sense of color and form, a solid grasp of the technology of light (lamps, fixtures, controls, and accessories), and an ability to integrate both natural and artificial lighting in architecture. Many of today's practicing lighting designers are trained as interior or industrial designers or as electrical engineers—although architecture schools are becoming important participants in lighting education and research.

ACOUSTICAL DESIGN. The demand for proper acoustics is inherent in all building types. Good acoustics are as important for comfort and productivity in homes, offices, schools, and shopping centers as they are in churches and concert halls. Increasingly, acousticians must also know how to work with the electronic systems that control or enhance existing sound in space—or even “shape” space for listening. Educated as engineers, physicists, and occasionally architects, acousticians usually work as independent consultants in small firms.

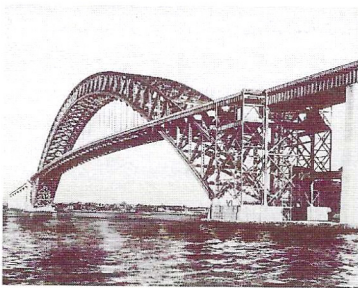
“
*I know that
architecture is life, or at
least it is life itself taking
form and therefore it is
the truest record of life as
it was lived in the world
yesterday, as it is
lived today or ever
will be lived.*

”

FRANK LLOYD WRIGHT

ENGINEERING. The design of buildings often requires the special expertise of civil, structural, mechanical, and electrical engineers. The options for engineers are many, and there is considerable demand for them in industry—from corporate clients and manufacturers of building products—as well as in private practice. Engineers offering design services for building projects typically practice as independent consultants in one of the areas listed or as a specialty engineer (e.g., acoustical, illumination, fire protection). Some engineering firms combine two or more of these areas; some offer architecture, construction management, or design/build services as well.

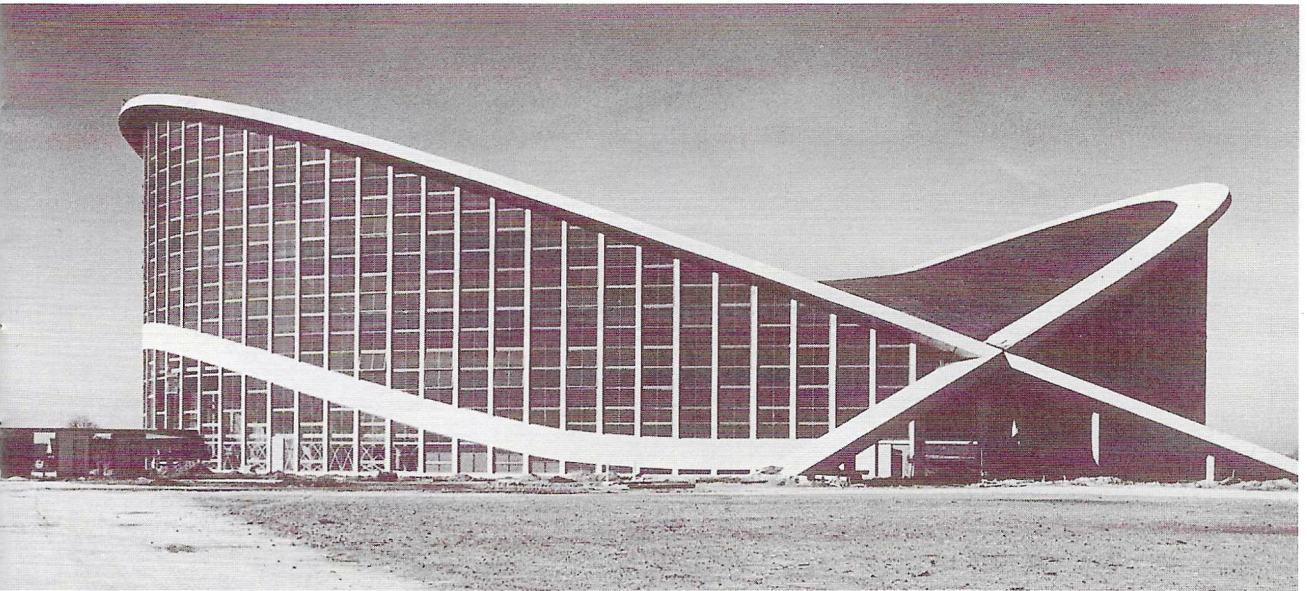
All states regulate the practice of engineering and, usually, the title Professional Engineer. Qualifications for registration generally call for a degree from an accredited engineering program, a specified number of years of approved experience, and passing a professional examination developed by the National Council of Engineering Examiners. Engineering schools are accredited by the Accreditation Board for Engineering and Technology.



Cass Gilbert, architect, and O.H. Ammann, structural engineer, Bayonne Bridge, New York City, 1931.

CONSTRUCTION. Some architects move into careers in construction, working as contractors, construction managers, or providers of design/build services. These careers require experience in materials and products and their costs; labor and labor relations; construction planning and logistics; and construction equipment, scheduling, and operations. Students may pursue baccalaureate or advanced degrees in building sciences, construction, and construction management. Some of these programs are offered in architecture schools, others in engineering or separate construction schools. The American Council for Construction Education accredits academic programs in construction.

URBAN AND REGIONAL PLANNING. Historically, urban planning has been closely associated with architecture. Increasingly, though, planning is concerned with economics, demographics, and public policy as well as land use and community development. Planners perform a variety of tasks from transportation studies to environmental impact assessments and zoning code analyses. A few independent planning firms exist, but most planners are employed by larger architecture and engineering firms or at various levels of state and local government. Many architecture schools offer degree programs in planning, usually at the master's and doctoral levels.



ARCHITECTURAL HISTORY, THEORY, AND CRITICISM.

The discipline of architecture is grounded in an understanding of the history of the field, its role in cultural development, and the ideas that shape architects and architecture. Some educated as architects choose the pursuit of these foundations (on the one hand) and critical “edges” of the discipline (on the other) as their life’s work. This decision almost always requires advanced education, increasingly at the doctoral level, and leads to teaching and research appointments in architecture schools, art and cultural history departments, or museums and academies dedicated to the development of the field.

**Mathew Nowicki, North Carolina State
Pavillion, Raleigh, North Carolina, 1953.**

ENVIRONMENTAL AND BEHAVIORAL RESEARCH.

In their pursuit of research foundations for design and building, some architects move in behavioral directions, doing advanced study in environmental design, psychology, or sociology. These individuals often seek teaching and research appointments. Some form consultancies offering postoccupancy evaluations and participating in the facilities management process.

The bottom line is that the building enterprise is an exceedingly broad field. The possibilities are endless.



Practice Roles & Settings

PREPARATION FOR ARCHITECTURE

Architecture education, and registration for those who choose it open the door to many possibilities within and related to the building enterprise.

FOUNDATIONS. Despite its intense focus on design and practice as a designer, an architect's education lays a broad foundation. In addition to conveying design and technical information, this education helps develop some key general abilities, including:

- ☉ The ability to define and address complex problems without easy or obvious solutions;
- ☉ A concern for contemporary cultural issues and problems, such as the quality of life, the state of the environment, and housing for those in difficult circumstances;
- ☉ The capacity to work with information and ideas that are specific and certain on the one hand and conceptual or even speculative on the other;
- ☉ Skill in the representation and communication of concepts, data, and proposals for action;
- ☉ The desire to take action—to make something happen.

GENERALISTS AND SPECIALISTS. Some individuals educated as architects choose to build their careers on the full breadth of their preparation. Others select specific interests, skills, or ideas as the basis for more specialized practice. Some seek roles in what has always been considered the mainstream of practice: planning, designing, and administering construction contracts for new and renovated building projects. Others seek—or discover—a wide variety of other roles, roles that may focus on:

- ☉ Particular aspects of the project process, such as design, materials research and specifications, or construction field administration;

“

*Consider the momentous
event in architecture
when the wall parted and
the column became.*

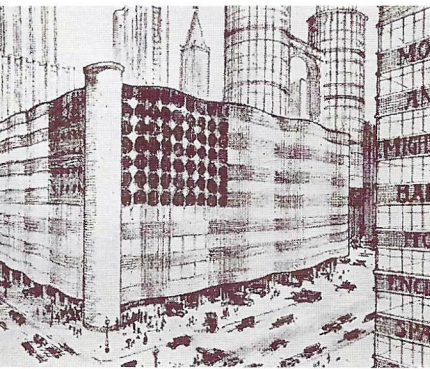
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LOUIS I. KAHN

Left: Shreve, Lamb & Harmon,
Empire State Building, New York City,
1929–1931.

- ☞ Specific design issues, such as accessibility for disabled persons, energy efficiency, or affordable housing;
- ☞ Project definition and planning, including facilities assessment, programming, and zoning assistance;
- ☞ Building products and systems, including research and development, manufacturing, or sales;
- ☞ Construction, serving as design/builders, contractors, or developers;
- ☞ Management of the project process or of the facilities that result from it.

PATHS AND SETTINGS. For most architects, the paths into and through practice do not lie in straight lines. Architecture graduates often seek a private architecture firm as the setting for their first job and the start of their internship period. Many find that this path leads, over time, to responsibilities as a project architect and perhaps to ownership of an architecture practice. Others find one of the more specialized roles to suit their talents and interests, whether in an architecture firm or a different setting. Still others find that their path leads into allied design disciplines, related industries such as real estate or construction, or beyond the building enterprise entirely.



William Adams Delano, "A Government Office Building for a Metropolis," 1932.

PRIVATE ARCHITECTURE FIRMS. For architecture graduates seeking registration, it is valuable to accumulate diverse experience in architecture in the office of a registered architect.

Architecture firms are a diverse group. The statistically "typical" office is small (86 percent of AIA firms employed fewer than ten people in 1993), is a sole proprietorship (52 percent of all firms in 1993), practices in a single state (52 percent), is about twelve years old (56 percent), and focuses on a single discipline—architecture. Such a firm might well include one or two principals, another licensed architect or two, an intern or two, and two or three technical and administrative staff.

The firms that have ten or more employees (14 percent of AIA firms in 1993) are an equally interesting group. While few in number, they command more than 70 percent of the market

Right: Claes Oldenburg drawing for "Batcolumn" sculpture, Social Security Administration Building, Chicago, Illinois, 1977.

(as measured in billings) and employ nearly two-thirds of those working in architecture firms. Small or large, architecture firms are important employment settings for architects.

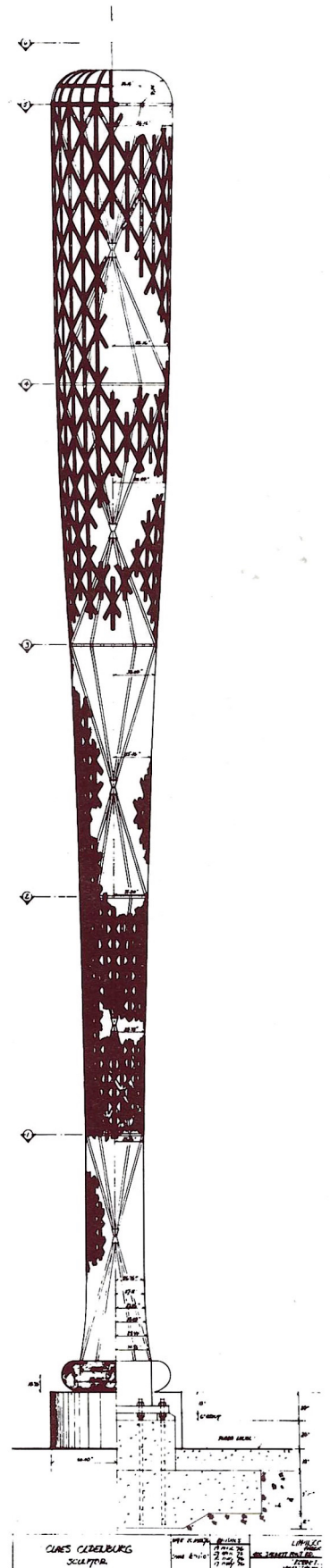
Roles within architecture firms range from design to management to various special interests. Many practitioners become skilled in several of these, combining them into a generalist practice. Architects in small firms often have little choice; they must cover many bases. In larger or more focused firms, distinct specialties and career paths may be an option.

THE PROJECT ARCHITECT. The project architect is in the key role in a private architecture practice, whatever its size. The project architect is the generalist professional who takes a project from its earliest beginnings in the office (which may be before the project is acquired) through planning, design, documentation, bidding or negotiation of construction contracts, administration of construction contracts, and building move-in, start-up, or even beyond. In small offices—or for small projects no matter the size of the office—project architects may do all of the above themselves. In larger offices or for larger projects, they may coordinate teams of consultants, contractors, and even other architecture firms. Some firms divide the role of the “project architect” into parts, assigning different persons to lead the project as it moves from concept to construction and placing continuity in the hands of a principal-in-charge or a project manager.

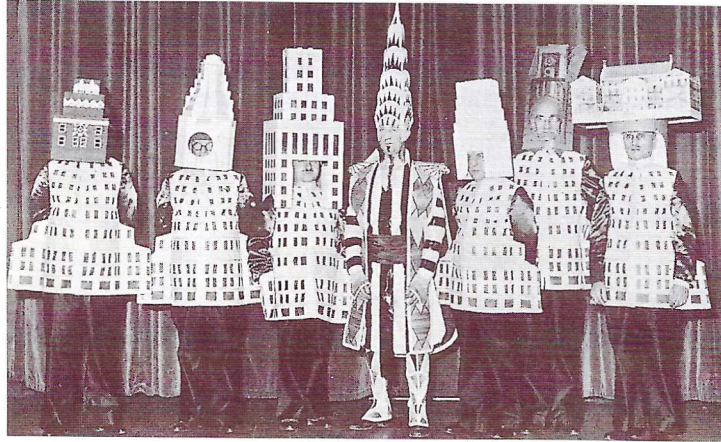
Generalist project architects combine many skills, interests, and responsibilities. To use an old metaphor, they have many arrows in their quivers. Individual architects may elect to sharpen some of these skills. Depending on their size and orientation, architecture firms may encourage—or even require—special expertise such as the following:

FACILITIES PLANNING AND PROJECT DEFINITION.

Successful buildings are often grounded in careful facilities planning, programming, and budgeting. The process of identifying client needs and problems before design begins is important. Programming commonly involves research on user needs and community planning and environmental requirements, followed by the development of performance requirements for building design. Funding resources, affordability, and financial feasibility are keys to getting projects off the ground.



"New York Skyline," Beaux-Arts Ball, 1931.



SITE PLANNING AND DESIGN. Architects may offer professional services in site analysis, selection, planning, and design. Some choose to develop special depth in these areas. Others move into landscape architecture as a distinct design discipline.

DESIGN. Traditionally, the architect's basic skill—design—involves developing an overall concept for a project, fitting it to the surrounding environment, organizing spaces, establishing proportions, selecting materials, and making the many decisions involved in creating habitable places and giving form to human needs and aspirations. Design is vital to all phases of architecture services. It's articulated in detailed documents for construction and continues throughout construction as final decisions are made on details, products, furnishings, and equipment. Design addresses questions of function, image, and response to local culture and context. Design is also closely tied to marketing and management, for successful design is fundamental to attracting clients and maintaining a successful practice.

TECHNICAL RESEARCH AND SPECIFICATIONS. Design requires care in evaluating, selecting, and specifying building materials, products and systems. The specifications writer has a special ability to research and write about the technical nature and relationships of building materials, products, and equipment. Larger firms may have a separate specifications staff; in smaller firms, individuals handle the work as part of a broader assignment. Some independent consultants build their practices solely on technical research and specifications writing.

DOCUMENTS PRODUCTION. As design progresses, architecture projects are detailed with care and thoroughly documented to inform the construction process. Many architects make this aspect of design their special province. Increasingly these architects are proficient in CAD (computer-aided design and drafting) systems; they may do much or all of their detailing and documentation on the computer.

CONSTRUCTION CONTRACT ADMINISTRATION. Most professional services agreements engage the architect to administer the construction contract. This includes field observations of the work under construction, monitoring tests and inspections, evaluating product samples, assessing possible design changes, processing contractor applications, and, in general, keeping the project on track. Construction contract administration involves frequent trips to the project and attracts individuals who like the hands-on atmosphere of a construction site. In some firms, this may be a full time specialty.

PROJECT MANAGEMENT. Effective project management is essential for a successful architecture practice. Clients want a close accounting of project quality, schedule, and cost. From the architect's viewpoint, project management affects profitability, quality assurance, risk management, and repeat business. In smaller and medium sized firms, project architects are usually responsible for managing their projects. Other firms establish this as a special expertise and job title. Project managers pull together the firm's design and technical skills, coordinate the project team, manage the client, and, in general, are responsible for meeting both the client's and the firm's objectives for the project. Project managers are usually involved in the firm's marketing effort as well.

SPECIAL ORIENTATIONS. An architecture firm may pursue a generalist practice, seeking to provide services for a wide range of clients and project sizes and types. Firms with regionally oriented practices often develop general expertise in a wide range of indigenous project types. Many firms, however, develop special orientations that allow members of the firm to gain in-depth knowledge and experience, adding special skills to their generalist foundations. Some examples include the following:

PROJECT AND CLIENT TYPES. Many firms focus on specific facility types and the clients who develop and occupy these facilities. Examples include single-family residences, schools and

“

Layer upon layer,

past times preserve

themselves in the city until life

itself is finally threatened with

suffocation; then, in sheer

defense, modern man

invents the museum.

”

LEWIS MUMFORD

educational facilities, and health care, criminal justice, and community facilities. Some firms deliberately focus on small projects and renovations. Some practices take on particular issues, such as affordable housing or environments for populations with special needs.

URBAN DESIGN AND PLANNING. Historically, planning and especially urban design have been tightly interwoven with architecture. Distinctions blur when site planning and architecture design examine the impact of the project on the city—its neighborhoods, outdoor spaces, utilities infrastructure, circulation, and transportation systems. Some architects and firms develop special expertise in this area and offer urban design and planning services.

INTERIOR DESIGN AND SPACE PLANNING. The design of interiors is an integral part of architecture and a growing area of special emphasis within architecture firms. It includes space planning, furnishings layout and selection, finishes, coordination with other building systems, and, perhaps, the design of furniture, cabinetry, lighting, and even tableware. Projects range from residential interiors to major public space design and special interiors for health care facilities, restaurants, hotels, resorts, and stores.

DESIGN AND PRACTICE TECHNOLOGIES. Some architects focus their interest and expertise on construction technology (including the study and development of new building components, assemblies, and systems), energy-conscious design and sustainable architecture, or computer use in the firm (developing software, supervising the purchase and installation of systems, training staff, and managing the firm's computer operations).

HISTORIC PRESERVATION. Building preservation, historic reconstruction, and preservation planning provide another set of special orientations for firms. Some staff members working in this field have degrees from graduate programs in preservation and have developed abilities in analysis, recognition, and restoration of buildings and other historic resources.

EXPANDED SERVICES. Owning and occupying buildings—and handling their ongoing management, maintenance, modification, and periodic rejuvenation—offer firms opportunities to expand their practices. Some have moved into construction, offering construction management or design/build services. Others have moved into facilities management and planning. For



individual architects, this means opportunities to develop special expertise in many places along the client support circle.

Frank Lloyd Wright, Johnson's Wax Building, Racine, Wisconsin, 1949.

MANAGEMENT ROLES. Whatever their size and orientation, architecture firms are managed. In small and medium-sized firms, the principals are usually responsible for management along with their project responsibilities. Larger firms usually require more special expertise in areas such as:

- ☞ Marketing and communications, including educating current and prospective clients, finding and following up project leads, developing proposals, and preparing for project interviews;
- ☞ Information management, involving creating, operating, and maintaining computer-aided design and other information systems;
- ☞ General management, including human resources (recruiting and hiring, performance appraisals, salaries and benefits), financial management, insurance and risk management, and quality management. Pursuing specialist management roles often requires additional training, available in short courses, postprofessional study in or M.A. programs.

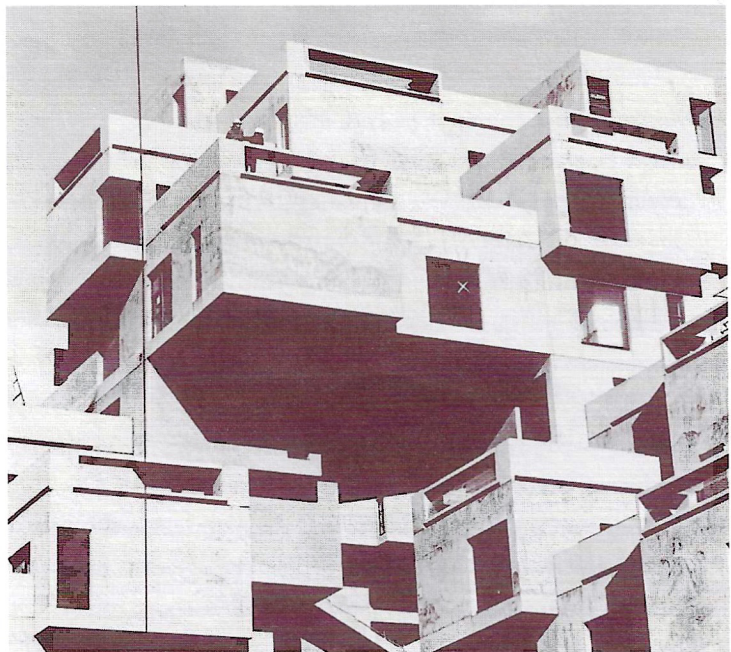
OTHER PRACTICE SETTINGS

As important as private architecture practices are, they by no means represent the only settings in which architects practice. Nearly one in five of all AIA members work outside private practices. Looking at registered architects as a group, the ratio is probably closer to one in three.

CORPORATIONS AND INSTITUTIONS. Business enterprises of all types, schools, hospitals, universities, and a wide variety of other spaceholders have their own staffs for planning and managing their facilities. According to Engineering News Record, the nation's top 700 owners had \$47 billion in construction underway during 1991 (down from nearly \$60 billion the year before).

It is not uncommon for land and buildings to represent as much as 25 percent of the assets of a contemporary corporation or institution. Increasingly these owners see their physical facilities as portfolio assets that deserve—indeed require—creative and systematic management and improvement. They need professionals on staff who understand buildings—and who can work with users and occupants on one hand and maintenance personnel on the other—to make these facilities as productive as possible. These owners may also develop in-house design and construction capabilities.

Moshe Safdie, Habitat, Montreal, Quebec, 1967, experimental housing for Expo67 Worlds Fair.



PUBLIC AGENCIES. More than one-quarter of the construction engaged in annually in this country is commissioned by federal, state, and local governments. A great many government agencies, departments, boards, and commissions are involved as facilities developers, designers, constructors, managers, or occupants. Like their institutional and corporate counterparts, these entities employ architects and other design professionals to help them acquire and use the facilities they need.

There are other dimensions to public involvement in the building enterprise. In addition to their roles as users and managers of space, public agencies may finance, insure, or subsidize the construction, renovation, or purchase of facilities in the private sector. Many agencies are involved in the regulation of development and construction. All require some combination of generalist and specialist expertise in architecture to carry out their public responsibilities.

CONTRACTORS AND DEVELOPERS. Many of these commercial enterprises have staffs to plan and design projects and sometimes to perform ongoing facilities management services for real estate they own. As the design/build delivery approach grows in influence, the number of organizations that provide both design and construction services is growing as well.

EDUCATION AND RESEARCH. Another substantial practice setting for architects is teaching and research. For many, this means a career as a full time college or university faculty member. Others pursue part-time careers in architecture programs or teach in community college or specialist programs relating to planning, design, or construction. In addition to taking on the education and training of the next generation of professionals—and developers, builders, regulators, and users of their buildings—a large proportion of these faculty members also maintain practices. Practice provides opportunities to probe the issues architects face everyday, to test ideas, and to sustain the dialogue between teaching and practice that characterizes any worthwhile pursuit.

“

*No man who is
not a great sculptor
or painter can be
an architect. If he is not
a sculptor or painter,
he can only
be a builder.*

”

JOHN RUSKIN

RELATED PURSUITS

Architects can be found “practicing” in a great many additional settings, including:

Banks and lending institutions

Building materials and product manufacturers and distributors

Code enforcement agencies

Community planning, design, development, and preservation organizations

Computer modeling, visualization, and representation firms

Computer software development

Engineering firms

Forensic architecture and service as expert witnesses

Furniture and fashion design houses

Graphic design firms

Historical societies

Industrial and product design groups

Interior design firms

Landscape architecture firms

Law firms

Management consulting firms

Materials and product organizations

Media and advertising agencies

Museums and art galleries

Professional societies such as the AIA

Scene and set design

Many of these careers require additional education or training, and some have their own registration or certification requirements. That so many possibilities exist, however, is strong testimony to the architect’s generalist upbringing and broad palette of skills.