


N C A R B

**NCARB Position Paper for the
NAAB 2008 Accreditation Review Conference**

APRIL 19, 2008

NCARB MISSION STATEMENT

The National Council of Architectural Registration Boards is committed to protecting the health, safety, and welfare of the public through effective regulation and exemplary service.

The NCARB Committee on Education assumed a leadership role in the preparation and development of the NCARB Position Paper for the NAAB 2008 Accreditation Review Conference.

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The paper was validated by NCARB Member Boards at Member Board Regional Conferences and reviewed and approved by the NCARB Board of Directors.

NCARB Position Paper for the NAAB 2008 Accreditation Review Conference

This paper presents issues and topics that are critical to the mission of the National Council of Architectural Registration Boards' (NCARB) commitment to protecting the health, safety, and welfare of the public through effective regulation and exemplary service. Five primary issues inform NCARB's contribution to the National Architectural Accrediting Board's (NAAB) 2008 Accreditation Review Conference (ARC) process. These are:

- ▶ Professional Knowledge and Practice
- ▶ Integration of Education, Internship, and Practice
- ▶ Leadership
- ▶ Sustainability
- ▶ Globalization, Cultural Diversity, Accreditation, and Registration

NCARB is comprised of the architectural registration boards of the 50 states, the District of Columbia, Guam, Puerto Rico, and the U.S. Virgin Islands. Its only members are those boards. Each of these 54 jurisdictions has governmental authority to register and regulate architects and to define educational requirements for licensure in its respective jurisdiction. Without board-issued registration, no one may engage in the practice of architecture nor use the title "architect" within that jurisdiction.

NCARB has a unique position for contribution to the ARC:

*"In the United States, the right to practice architecture and the right to use the title 'architect' are granted by state registration boards and no one else. The National Council of Architectural Registration Boards is the national organization representing those state boards and works with its Member Boards to establish registration or licensing policies."*ⁱ

The 2008 Accreditation Review Conference provides an opportunity for the NAAB to ensure that the education standards of professional architectural programs and professional architectural education satisfies the expectations of NCARB and its 54 member boards, the jurisdictions that are responsible for the licensure of architects. It is essential that the National Architectural Accrediting Board, as the sole agency authorized to accredit the professional degree programs in architecture in the United States, ensure that accreditation requirements are in close alignment with NCARB and the mandates of the individual architectural registration boards.

*"The worlds of architecture practice and education depend on each other for their purpose and vitality. Both bear responsibility for gainful employment and for continuing the lifelong professional education of architects. In the end, the academy and the profession also share an obligation to serve the needs of communities, the built environment, and society as a whole."*ⁱⁱ

Ernest Boyer and Lee Mitgang

Essential NCARB 2008 ARC topics:

- ▶ Incorporation of professional knowledge, skills, and tasks required during education
- ▶ The increased integration of education, internship, and practice
- ▶ Leadership in the building industry
- ▶ Sustainability and stewardship of the natural and built environment
- ▶ Globalization, cultural diversity, accreditation, and registration

ⁱ *Architectural Organizations and the Practice of Architecture in the United States*. National Council of Registration Boards, August 2007: 2.

ⁱⁱ Boyer, Ernest L. and Mitgang, Lee D. *Building Community: A New Future for Architectural Education*. Princeton, NJ: The Carnegie Foundation for the Advancement of Teaching, 1996: 109.

In response to the issues associated with PRACTICE, the development of the new *NAAB Conditions for Accreditation* and the “Student Performance Criteria” must:

- ▶ Expect measurable demonstration of significant interdisciplinary collaborative work as part of the design studio and other classes.
- ▶ Enhance student understanding of integrated design and delivery processes through design studio projects, lead by licensed practicing professionals.
- ▶ Increase understanding of the architectural profession, its processes, and the knowledge-based nature of contemporary practice.

The modifications of accreditation standards and their impact on architectural education have been evolutionary and incremental. In the past, the NAAB accreditation standards, particularly the standards specified in the *NAAB Conditions for Accreditation*, have been developed and modified in response to changes in professional practice. As NCARB and the collateral organizations prepare for the 2008 ARC, the NAAB, the architecture profession, and the academy must be ready to implement important changes in order to continue to educate and prepare architects for the challenges and demands of tomorrow’s architectural practice.

PROFESSIONAL KNOWLEDGE AND PRACTICE

The profession and practice of architecture have recently been subject to dramatic changes. The extent and scope of these changes have radically impacted all aspects of the architecture profession. Social, environmental, economic, industrial, and technological forces, coupled with new forms of integrated practice, have required the profession to acknowledge that traditional processes, practices, and forms of project delivery may no longer be effective.

In the same way that practice has adapted to these dynamic transformations, the academy must redefine its responsibilities within the larger social and professional framework. Such change constantly informs the Intern Development Program (IDP) and the Architect Registration Examination® (ARE®). Both continue to undergo significant developments in response to external factors. Similarly, these influences should inform changes in accreditation requirements. If architects are to adapt, it is essential that the academy develop effective ways to adjust to these critical transformations.

Better designed and more efficiently delivered building projects are demanded of professionals in the design and construction industry. This demand requires a more effectively integrated and collaborative team approach to project delivery. Much of the knowledge and many of the skills necessary for success in this new environment remain out of the purview of architectural education and internship. This shortcoming leaves emerging professionals without the appropriate knowledge and skills that should be acquired in an accredited program and that are necessary to assume positions of architectural leadership and authority in delivering professional services.

NCARB’s *2007 Practice Analysis of Architecture* (<http://www.ncarb.org/forms/2007NCARBpracticeanalysis.pdf>) found 17 deficient knowledge areas and skill sets out of 100—many of these 17 deficiencies are in the practice and management areas. These deficiencies have been quantitatively demonstrated to be necessary skills for a recently licensed professional to practice independently. Important questions must be addressed. Where should these deficiencies be overcome: in education, in internship, or in both? The NCARB

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Board of Directors has determined that 12ⁱⁱⁱ of these deficiencies must be addressed during education. In order to address these deficiencies, appropriate changes to the *NAAB Conditions for Accreditation* need to be considered. NCARB encourages the collaterals to carefully review the *Practice Analysis*, particularly with regard to these deficiencies.

The integration of practice processes goes beyond the technology, accountability, and legal considerations of working with Building Information Modeling (BIM) as a tool and delivery method for the design and construction of a building. It more broadly suggests a "...whole new integrated practice methodology, starting with changes in workflow and the creative process, and a transformation from interdisciplinary collaboration to one occurring simultaneously within a team."^{iv}

Due to changes in practice, the way in which the profession and the academy interact to ensure that architects are given the knowledge and skills required to become leaders in the building delivery process is critical. The fact that the architect is the primary professional licensed to protect the public's health, safety, and welfare underscores the importance of this condition.

INTEGRATION OF EDUCATION, INTERNSHIP, AND PRACTICE

Education: Architectural design has been the core of architectural education for many years. Embodied in both art and science, architectural design is an intellectual endeavor that strives to create environments that meet client needs and address current human conditions and situations. It has been the architect's challenge to achieve this within the larger context of protecting the health, safety, and welfare of the public.

Individual decision-making skills are central to the traditional culture of architecture design studio. Maintenance of this tradition while balancing it with appropriate responses to the changing conditions and processes currently

ⁱⁱⁱ Of the 17 knowledge/skills identified in the Practice Analysis, the 12 identified as needing to be addressed during education are: In Domain 1: Pre-Design – *project financing and funding*. In Domain 3: Project Management – *project budget management* and *construction conflict resolution*. In Domain 4: Practice Management – *legal and ethical issues pertaining to contracts; legal and ethical issues pertaining to practice* (liens, taxation, licensure); *business planning; strategic planning; financial management; risk management* (e.g., professional and general liability); *marketing and communications*; and *contract negotiations* (e.g., fees, scope, schedules). In Domain 5: General Knowledge – *entrepreneurship*. The other five of the 17 areas are: In Domain 4: Practice Management – *human resource management; IDP mentorship and supervising; and invoicing for services*. In Domain 5: General Knowledge – *mentoring – teaching others; and supervising*. The report notes a majority of respondents indicated that the point of acquisition of these is "after licensure."

^{iv} "Building Information Modeling." The Design Professional group of the XL Insurance Companies.

In response to the issues associated with EDUCATION, the development of the new *NAAB Conditions for Accreditation* and the "Student Performance Criteria" must:

- ▶ Address knowledge and skill deficiencies noted in the [2007 Practice Analysis of Architecture](#).
- ▶ Increase emphasis on knowledge-based education and design processes.
- ▶ Increase and require opportunities to learn through collaborative work in most areas of the curriculum.
- ▶ Require teaching pedagogies that provide a foundation in and understanding of integrated design and practice.

employed in integrated practice will necessitate modifications of teaching models and academic pedagogies. A broad agreement on the definition of integrated studio, consistent with the definition of integrated practice, will be necessary.

Architecture programs have started this process. The image of the “heroic” model of the individual as “starchitect” has begun to be eroded as programs embrace the model of integrated practice. However, more progress is needed. A new instructional paradigm that includes owners, engineers, construction managers and contractors, developers, system suppliers, and other members of the building delivery system would reflect a more realistic model of the professional context of practice today. Further, interdisciplinary work between programs across the university could engender rich cross-disciplinary opportunities. This would expose students to the direct experience of building design through an integrated practice and interdisciplinary approach, better preparing them for the challenges of current and future practice.

Within this new context it is essential to ensure that students receive an educational foundation that leads to successful practice. Such a foundation requires a professional knowledge-based and practice-based education. It requires a realization that innovation and responsiveness in design is based upon a sound foundation of empirical knowledge and research in all applicable content areas that influence decision-making. Such a foundation assumes that the academy embraces the realities of the profession.

Integration of Education and Practice: There are necessary tensions between the academy and practice. These are often stimulated by the academy’s concept of the architect as a generalist, embodied in the liberal arts core of a university education versus the profession’s desire to focus on professional education with possible areas of specialization. Despite these tensions, the primary reason for NAAB accreditation is the establishment of criteria to ensure that students are prepared as future licensed professionals.

Architecture is inherently an interdisciplinary activity. It requires processes that involve collaboration between multiple stakeholders. Architecture curricula should provide a stronger foundation for engagement with the practicing professional. Implementation of concepts such as the practice academy and the teaching firm could assist students in the transition from education to internship, and subsequently to practice.

Numerous architecture programs are working to bridge the gap between practice and the academy through the establishment of relationships with architectural firms and involvement of professional firms in the classroom. A variety of methods to achieve this interaction are demonstrated by growing

In response to the issues associated with the INTEGRATION OF EDUCATION AND PRACTICE, the development of the new *NAAB Conditions for Accreditation* and the “Student Performance Criteria” must ensure:

- ▶ Architectural programs demonstrate how practicing architects are making significant contributions to the educational process.

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engagement in the NCARB Prize and Grant programs, and the AIA Education Honors Awards and Practice Academy program.

The educator/practitioner plays an increasingly important role in the academic setting by providing more meaningful appreciation and respect for knowledge-based practices and processes. Architecture programs should have a balanced and diverse faculty. The education and licensure of practicing architects makes them an essential part of that balance. As knowledge-based practices begin informing architectural curricula more fully, licensed educators will become increasingly essential to professional programs.

One specific issue is central to NCARB: How can a process among the collateral organizations be developed to use the results of NCARB's [2007 Practice Analysis of Architecture](#) to inform the content of architecture curricula as well as the expected competencies developed in IDP versus those that should occur after completion of the ARE. While the *Practice Analysis* focuses upon competencies a newly licensed architect should possess to practice independently, the findings of NCARB's *Practice Analysis* have implications across the education, IDP, and practice spectrum. It is time the collateral organizations develop a process to systematically evaluate the results of the analysis, and to determine where in the sequence of education, IDP, and practice that knowledge acquisition is best situated.

Intern Development Program (IDP): Completion of the Intern Development Program and a professional degree from a NAAB-accredited program are requirements for licensure in the United States. Because IDP is a requisite step to licensure, it is imperative that students be enrolled in IDP at the earliest opportunity in their architectural program. Not only would enrollment in IDP strengthen the connection between education and practice, it would provide students the opportunity to utilize IDP as an important beginning in the lifelong learning process required for their professional career development. Enrollment in the Intern Development Program does not require that the student be employed or acquire IDP training during their education program.

It is important that the academy and the profession work together in educating and mentoring students and young professionals entering the field of architecture. While both practice and education have specific roles to play, they need to explore and develop new opportunities to work together. The architecture profession has an implicit responsibility to the academy to ensure that interns receive the mentoring and supervision necessary to achieve a timely and meaningful completion of IDP.

Research undertaken by NCARB and other collaterals will help inform concepts such as the practice academy and the teaching firm. The collateral organizations need to ensure a greater degree of integration between education

In response to the issues associated with the INTERN DEVELOPMENT PROGRAM (IDP), the development of the new *NAAB Conditions for Accreditation* and the "Student Performance Criteria" must ensure:

- ▶ Students in NAAB accredited degree programs are required to be enrolled in the Intern Development Program (IDP) upon satisfactory completion of:
 - ▶ Three years in an NAAB-accredited professional degree program;
 - ▶ The third year of a four year pre-professional degree program in architecture accepted for direct entry to a two-year NAAB-accredited professional master's degree program; or
 - ▶ One year in an NAAB-accredited professional master's degree program following receipt of a non-professional degree.
- ▶ Faculty and students understand the role of the Intern Development Program (IDP) in obtaining licensure and registration, and the mutual rights and responsibilities of interns and employers.
- ▶ Programs are required to have a designated and trained IDP Education Coordinator, and that the coordinator's attendance at all appropriate training conferences and meetings is supported.

and the profession to guarantee that recently licensed architects have acquired the necessary knowledge and skills at appropriate times in their education and internship.

Essential to the successful integration of IDP into architecture programs is the position of the IDP Education Coordinator. Each NAAB-accredited program should be required to have a trained and supported IDP Education Coordinator. It is the responsibility of all collaterals to define and develop a more comprehensive program to ensure that IDP Education Coordinators are appropriately trained to support the needs of today's diverse architectural student body.

The costs for students to enroll in IDP and institutional policies that limit formal adoption of IDP are often raised as obstacles to integration of IDP in the academy. Once IDP enrollment is required for NAAB Accreditation, and each school is required to demonstrate that it has an active, trained, and funded IDP Education Coordinator, NCARB is prepared to defer IDP fees until six months after graduation with a professional degree from a NAAB-accredited program or until the time the Intern files a request to be made eligible to sit for the Architect Registration Examination®--whichever occurs first.

LEADERSHIP

The challenges of integrated practice and sustainable design, among other forces impacting practice, call the architect to a greater level of leadership in the delivery of building projects. In order for architects to truly be leaders in the building industry and assume future responsibilities inherent in protecting the health, safety, and welfare of the public, they must develop skills and capabilities that are beyond those traditionally taught in architectural programs.

Providing genuine opportunities for students to acquire the appropriate knowledge and leadership skills, as well as providing opportunities for students to apply these skills, should be required in architecture programs. Students should not only be expected to think about their role as leaders within a project, they also need to understand their role as civic leaders in society. Professional education must nurture and promote a strong leadership foundation for future practitioners.

Architectural design, at its very core, is a collaborative process. Because the design and building process involves a variety of professions and trades, architects must collaborate with others to realize their projects. Education should embrace this mutual process by encouraging students to develop negotiation, mediation, and collaborative skills as well as leadership skills. This

In response to the issues associated with LEADERSHIP, the development of the new *NAAB Conditions for Accreditation* and the "Student Performance Criteria" must ensure:

- ▶ Leadership training is integrated into the architectural program.
- ▶ Management instruction is integrated into the architectural program.

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shared process, if addressed proactively in education, will help students understand that collaboration as an intrinsic part of the design process.

A vital part of being an excellent leader is the ability to understand ethical and moral situations, and to understand the implications of one's decisions. Architects have ethical obligations to be informed advocates for the health, safety, and welfare of the public. In a just and equitable society professionals are obligated to inform clients of the long-term costs and implications of decisions about their projects. Architecture programs are responsible for creating environments in which students can form the values and develop the leadership skills implicit in this obligation.

SUSTAINABILITY

“Sustainability includes the understanding, application, and impact of leadership and design to sustain vital human support systems, such as the planet's climatic system, systems of agriculture, industry, forestry and fisheries, and human communities in general, and the various systems in which they depend.”^v The architect's charge to protect the health, safety, and welfare of the public includes the responsibility to address the issues of sustainability in the design of their client's buildings as well as their community's built environment. As part of an industry that produces the largest contributions to greenhouse emissions in the world today, architects have a moral, ethical, and professional responsibility to address this issue. In order to be effective in this area, architects must assume leadership as stewards of both the natural and built environment.

There is increasing interest in the effects that building design and materials have upon building occupants. The benefits of green building design are inherently fundamental to the NCARB mission and the role of architects to protect the health, safety, and welfare of the public. As sustainable design becomes more closely tied to increased health benefits, the profession will be expected to fulfill its obligation to the public through improved practice in these areas. Sustainable design will become the standard of practice expected throughout the country, with architects providing buildings that meet those expectations. It is easy to imagine a time when the definition of building codes is expanded to include sustainable building performance standards with proven health benefits.

GLOBALIZATION, CULTURAL DIVERSITY, ACCREDITATION, AND REGISTRATION

As the United States participates more directly in the world market and becomes more multicultural within its own borders, architects face an increasingly broad, diverse, and at times conflicting set of cultural issues. These

In response to the issues associated with SUSTAINABILITY, the development of the new *NAAB Conditions for Accreditation* and the “Student Performance Criteria” must ensure:

- ▶ Sustainability is integrated into all expectations concerning ethical behavior and leadership, as well as in all aspects of expected student's performance (programming and pre-design activities, design, building integration, and practice issues).

In response to the issues associated with GLOBALIZATION, CULTURAL DIVERSITY, ACCREDITATION, and REGISTRATION, the development of the new *NAAB Conditions for Accreditation* and the “Student Performance Criteria” must ensure:

- ▶ Knowledge of global issues including cultural diversity, social diversity, and a range of value systems that impact the accreditation process, the registration process and the practice of architecture is integrated into the architectural program.

^v “Sustainability.” Wikipedia, <http://en.wikipedia.org/wiki/Sustainability>.

Click here to read the *2007 Practice Analysis of Architecture*, or go to <http://www.ncarb.org/forms/2007NCARBpracticeanalysis.pdf>

issues affect all aspects of practice. An individual's well-being and therefore welfare is in great part derived from their culture. Culture is inherently connected to family, community, gender, race, age, religious beliefs, customs, ethnicity, and physical ability. In order for architects to be responsible to the challenge of protecting the welfare of their clients and the public, they must be exposed to and have experienced a variety of ethos. Architecture programs must provide the initial context for the experiences that will set the framework that will allow architects to engage with, and to design within, an ever flattening world where multiple cultures exist.

Increasing globalization not only brings changes to architectural education and the profession, but also transforms the territorial-bounded accrediting and registration systems. Globalization is bringing changes to architectural education and the profession, as issues of local development need to be taken into consideration against a global context. Even in a seemingly diminutive local project undertaken by a small firm, the architect could well interact with representatives from around the world, or a multiplicity of cultures within ones own locale. One of NCARB's primary charges has been to facilitate interstate reciprocity. Now it is challenged to serve as the leader for inter-country reciprocity. Well-developed, mutually recognized accrediting and registration practices and processes will greatly facilitate this process.

SUMMARY

NCARB works with its Member Boards to establish education, internship, registration and licensing requirements for architects. In addition to its commitment to protecting the public's health, safety, and welfare through effective regulation and exemplary service, NCARB's vision includes promoting recognition of the architect as the primary building professional qualified to protect the health, safety, and welfare of the public. The issues identified in this paper, Professional Knowledge and Practice; the Integration of Education, Internship, and Practice; Leadership; Sustainability; and Globalization, Cultural Diversity, Accreditation, and Registration are central to this vision. NCARB and its 54 Member Boards are committed to increasing, not only the responsible practice of architects, but the effectiveness of architects in all areas of practice.

As the organization responsible for ensuring the quality, consistency and content of the education received by future architects in the US, the National Architectural Accrediting Board has a responsibility to incorporate the visions, values and requirements of the individual jurisdictions that are responsible for architectural registration in the US as represented by NCARB. If the NAAB does not require the academy to respond to global changes occurring in society, the building industry, and the architecture profession, there is a great risk that other building industry professionals will take responsibility for charges that architects are unable or unwilling to assume.