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Outlook of the Architectural Design Major in Higher Vocational Education in Shenzhen

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Abstract: This paper explores the development direction of the architectural design major in vocational education in Shenzhen, in the context of the transformation of China's construction industry towards the stock market and the rapid advancement of new urbanization. It discusses the advantages and development trends of the construction industry in the Guangdong-Hong Kong-Macao Greater Bay Area and Shenzhen. The paper first outlines the ongoing technical evolution of the construction industry towards digitalization, intelligence, and sustainability. It also identifies the development characteristics of enterprises, such as diversification, branding, regionalization, and specialization. Secondly, it clarifies that Shenzhen's construction industry will continue to develop in hot areas such as urban renewal, rural revitalization, and historical preservation. Lastly, the paper proposes development suggestions, including exploring multi-path specialized training mechanisms, developing vocational undergraduate and associate degree programs in parallel, and emphasizing the characteristics of the program closely aligned with market demands, to enhance graduates' employment competitiveness, thereby achieving sustainable and high-quality development of the vocational education architectural design major in Shenzhen.

Keywords: Construction Industry; Shenzhen; Higher Vocational Education; Architectural Design Major; Development.

1. Background of the Architectural Design Industry

1.1. Macro Environment of the Construction Industry

Since the reform and opening up, China’s urban construction has developed rapidly. According to the latest data from the National Bureau of Statistics and Guangdong Provincial Bureau of Statistics, the urbanization rate of China in 2024 is 67%, and Guangdong Province, as an economic leader, has reached 75.91%. In the Pearl River Delta region, the urbanization rate is even higher. Over the past 40 years, rapid urbanization has driven the growth of the construction industry. However, in recent years, urbanization in developed regions has approached saturation, leading to a new trend in the construction market.

In July 2025, the Central Urban Work Conference was held again after ten years. President Xi Jinping delivered an important speech, deploying key tasks for urban development. The meeting defined the overall goal of building a modern people's city and proposed seven key tasks such as “optimizing the modernization of urban systems” and “building smart cities.” The Central Government’s opinion on promoting the high-quality development of cities, issued in August, emphasizes human-centered development, optimizing the urban system, creating high-quality urban living spaces, and promoting smart city governance. By 2035, the modern people's city will be basically built. During the 2020 academic year of the China Architecture Society, Professor Zhuang Weimin, an academician of the Chinese Academy of Engineering and director of Tsinghua University’s Architectural Design Institute, clearly stated that “China’s construction market has transitioned from an incremental market to a stock market.” This shift in the overall supply-demand relationship in the construction market will bring new challenges to the industry, especially in areas like the Pearl River Delta and Shenzhen, where urbanization is highly concentrated and land for construction is increase.

In the face of new circumstances and issues arising during the new phase of urbanization, the “new path” of "new urbanization" requires the participation of the entire construction industry to continue exploring and improving in the development process. Regarding the architectural design industry, several emerging trends have gradually become a consensus in the industry, and the corresponding concepts and technologies have been rapidly popularized and advanced. For example: to lay a solid foundation for China’s "Belt and Road" initiative and infrastructure “going global,” we are advancing the reform of project organization models, aligning with international standards, integrating the upstream and downstream construction industry supply chains, and exploring the development of Engineering Procurement and Construction (EPC) and design-build integration; under the backdrop of China’s “dual carbon” goals, we are advancing the implementation of green, low-carbon, and ecologically sustainable development in construction, with relevant concepts, technologies, and evaluation standards being promoted and improved[1]; in response to the demands of Smart Manufacturing 2025 and Industry 4.0, we are pushing for the industrialization and standardization of construction, integrating the creative design of building plans with precise manufacturing and construction; amid the waves of “Big Data” and “Cloud Computing,” we are advancing the digitalization and parametrization of architectural design and the informatization and intelligence of building operation and maintenance. Clearly, the construction industry is seeking breakthroughs and upgrades from many perspectives and angles.

1.2. Overview of Shenzhen's Urban Development

Shenzhen is a state-planned city, a Special Economic Zone

in China, and a pilot demonstration zone for socialism with Chinese characteristics. Located in the Pearl River Delta region of Guangdong Province, it is one of the key core cities in the national urban agglomeration—the Guangdong-Hong Kong-Macao Greater Bay Area, comprising "two districts and nine cities." The city covers an area of 1,997.47 km² and governs nine districts. It has a subtropical maritime climate, with hot and humid summers, mild winters, and abundant sunshine throughout the year.

In January 1979, Shenzhen was upgraded from a county to a city. Since the reform and opening-up, the city's various constructions have rapidly developed over more than 40 years. In 2020, Shenzhen's GDP reached 2.767 trillion RMB, ranking third among Chinese cities. According to the seventh national census data, 5.36% of Shenzhen's population is aged 60 and above, compared to 18.7% nationwide. Shenzhen has the youngest population structure among major cities in China.

The four pillar industries of Shenzhen's economy are high-tech industries, cultural and creative industries, modern logistics, and finance. In 2008, Shenzhen was recognized by UNESCO as a "City of Design" in the global Creative Cities of Design network. In November 2024, Shenzhen won the highest honor, the “2024 World Smart City – City Award,” at the Global Smart Cities Conference held in Barcelona, Spain, after competing with 429 cities from 64 countries and regions. The city is vibrant, with concentrated capital and technology, and a favorable environment for innovation and creativity.

1.3. Overview of Shenzhen's Construction Industry

According to the unified GDP accounting results of Guangdong Province, Shenzhen's GDP in 2024 reached 3.680187 trillion RMB, an increase of 5.8% compared to the previous year. Among this, construction enterprises with qualification levels above a certain grade completed a total output value of 798.045 billion RMB, growing by 12.2%. In 2024, the construction industry’s output value accounted for 21.7% of the city's total GDP. The total construction area in progress was 72.57369 million square meters, with new construction area reaching 5.22709 million square meters, and completed housing area was 6.56168 million square meters. Although these figures show a decrease compared to last year, the construction industry market remains generally stable with steady development.

Over more than 40 years of rapid urban construction, the "Shenzhen model" and "Shenzhen speed" have gained widespread recognition across the country, becoming synonymous with favorable development environments and rapid infrastructure construction. The booming development of the construction industry and the rapid expansion of the market have also given rise to many outstanding local construction brands. For example, notable architectural design firms like Shenzhen Institute of Architecture, Shenzhen University Design Institute, Huayang, Botao, Zhubo, Sidie, Yichuang, and Urban Practice are actively engaged in major architectural projects throughout Southern China and nationwide.

Indeed, the years of rapid urbanization and the increasingly scarce land resources for construction have accelerated Shenzhen’s transition to a stock market-based construction industry. This has forced the local construction professionals to proactively seek new growth points, exploring various possibilities within the "new urbanization" framework. With strong support from national, provincial, and municipal policies, Shenzhen's construction enterprises have gradually taken the lead in areas such as green low-carbon construction, BIM application, modular construction, EPC project models, and PPP project models [2]. Emerging developments in areas like Guangming New District, Pingshan New District, and Shenzhen Mountain Cooperation Zone, as well as the construction of cultural public buildings, university campuses, healthcare and wellness buildings, and station-city integration, have injected new vitality into the local construction market, defining the direction for the future development of the industry.

2. Development Trends in the Architectural Design Industry

2.1. Technological Development Trends-- Digitalization, Intelligence, and Sustainability in Design

Since the reform and opening-up, over 40 years of rapid infrastructure construction have significantly accelerated urbanization in China. Today, urbanization in developed regions is gradually approaching saturation, and the availability of land for construction is becoming more limited, leading to a slowdown in the overall pace of urban development. As a result, industries like architectural design, which once experienced a booming demand, are now facing overcapacity, making the search for new growth points a key focus for the industry. At the same time, advancements in computer technology and network communication, coupled with the increasingly severe issue of climate change, have driven the architectural design industry to actively integrate with the demands of the times, expanding into emerging fields such as architectural digitalization, intelligence, and sustainability. These fields represent the key direction for China’s construction industry in the next phase of development.

(1) **Architectural Digitalization (Informationization)**

Since this direction is still in the exploratory phase, there is no widely accepted definition in the industry. Broadly speaking, architectural digitalization or digital architecture refers to the deeper use of computer technology to assist in the completion of all stages of an architectural project. Digital architecture is generally divided into two components: Digital Design and Digital Fabrication. Digital fabrication is more intuitive and easier to understand, involving the use of computers to manage and optimize all issues during the construction cycle. It enhances the building methods and processes, offering advantages such as high precision, speed, and cost savings compared to traditional construction management.

Digital design, on the other hand, is more complex, and the industry has not yet reached a consensus on its definition. However, the general understanding is that digital design uses computers' superior computing and data processing abilities to assist designers in providing better solutions for certain architectural problems. This allows humans to design and construct complex surfaces with high precision, control, and prediction of the building’s performance after construction. Currently, China is actively exploring several digital technologies, including Building Information Modeling (BIM), parametric design of complex forms, standardized optimization of related components, industrial design and production of modular construction, cloud-based

collaborative design across regions, virtual reality (VR), augmented reality (AR) for architectural simulation, Geographic Information Systems (GIS) for urban and rural planning, and the development of foundational databases for smart city platforms.

(2) **Architectural Intelligence**

Architectural intelligence is also in the exploratory phase, and there is no clear definition in the industry. Generally, it refers to establishing a linkage mechanism between the building's relevant spatial parameters and computer management systems. Based on optimized design, the integration of computer technology builds a deeply integrated management system, enabling real-time monitoring and precise control of key areas and important attributes of the building space. Architectural intelligence is a fundamental component of smart cities. Common subsystems in intelligent buildings include fire monitoring, security monitoring, environmental monitoring, equipment monitoring, and smart homes. By integrating these subsystems, buildings provide more convenient, comfortable, and safe spaces with optimized resource allocation. Furthermore, through network technology, intelligent systems in individual buildings can be interconnected, allowing for more efficient resource distribution in urban spaces, facilitating the coordination between people, buildings, and cities—an essential part of smart cities. Currently, significant progress in architectural intelligence is being made in the design phase, primarily in the mechanical and electrical specialties. As intelligent building technology continues to improve, it will increasingly intersect with architectural design. In the operational phase of buildings, the integration of various subsystems, based on mature security and monitoring systems, is continuously evolving and being applied. Recently, concepts like smart homes and the standardized integration of BIM data in the context of smart cities have become popular directions for architectural intelligence.

(3) **Architectural Sustainability (Green Architecture)**

Green architecture, which has developed over the years, is defined as maximizing resource conservation throughout a building's life cycle, including energy-saving, land-saving, water-saving, and material-saving, while protecting the environment and reducing pollution (the "four savings and one environmental protection"). The goal is to provide healthy, comfortable, and efficient spaces for people to live in harmony with nature. Green architecture technology focuses on low consumption, high efficiency, economy, environmental protection, integration, and optimization, balancing the interests of people, nature, the present, and the future. It is a sustainable construction method. China's green architecture has evolved from the concept of building energy efficiency and continues to improve as a response to various environmental issues. Over time, several concepts have emerged, including energy-efficient buildings, low-energy buildings, ecological buildings, sustainable buildings, green buildings, and low-carbon buildings. While these concepts differ in expression, their fundamental purpose remains the same, and collectively, they are referred to as green buildings. In practical applications, basic green energy-saving calculations and green building evaluation methods have been widely used. Under China's dual-carbon goals, low-carbon buildings, a branch of green architecture, have strong development potential. As various building physical environment simulation software matures, climate-responsive design for buildings is rapidly advancing. Collaborative integration and comprehensive optimization of green architecture and landscape design under the concepts of ecological cities and sponge cities are hot development areas.

2.2. Development Trends at the Enterprise Level—Branding, Regionalization, and Specialization Based on Dual-tier Differentiation

Due to factors such as market changes, upstream and downstream trends, and macro policy guidance, the overall pattern of the architectural design industry is undergoing changes. The previous distribution of large, medium, and small enterprises based on scale will be disrupted. The combined effects of "new urbanization" and the implementation of EPC and PPP models by the government will allow large enterprises with strong comprehensive strength and specialized companies with unique core technologies to take the lead in the future design market, gaining more space for development and better opportunities. On the other hand, design companies that do not possess these characteristics will face a grim future if they do not make timely transformations to gather strength in one of these two directions—either with "comprehensive capabilities" or "unique expertise." In other words, construction design companies required for "new urbanization" must either be "large and comprehensive" or "small and specialized."

Based on this dual-tier differentiation, China's architectural design enterprises are generally exhibiting characteristics of branding, regionalization, and specialization.

(1) **Branding**

After saturated market competition, China’s architectural design industry has gradually formed a number of well-known design brands. Examples include China Architecture Design and Research Group (Old Department), various regional design institutes under China State Construction Engineering Corporation, Shanghai Modern Architecture Design Group, Guangzhou Urban Planning and Survey Design Institute, Shenzhen Architectural Design and Research Institute, and various regional provincial and municipal architectural design institutes, all of which contribute their "Chinese design" across the country. Within the construction industry, there is a consensus on the brands of major design enterprises. Project clients (owners) select design companies for design services based on project importance, budget investment, and the nature of the building. Large comprehensive design institutes handle a wide range of projects, have highly standardized drawings, strong technical teams, and charge higher fees. In contrast, medium and small design institutes often focus on specific types of buildings but lack the technical reserves of larger institutes, resulting in inconsistent drawing standards and lower fees. Therefore, the branding development of architectural design enterprises is the inevitable result of efficient coordination and resource matching across the entire construction industry.

(2) **Regionalization**

Since architecture is a complex system engineering, it is influenced by regional climate adaptability, local standards, and differences in the interpretation and enforcement of regulations. Only a few top design companies, with their strong influence and technical expertise, can complete architectural design projects across regions. Generally, design firms are more familiar with the local architectural features and project development processes and thus focus their core business on local or nearby projects. Therefore, the

regionalization of architectural design enterprises shares the same logic as branding, as regionalization can make the project progress more efficient and reasonable.

(3) **Specialization**

Building on the previous two points, some design firms, or specific design departments within large comprehensive firms, specialize in a particular field of architectural design. These units accumulate extensive engineering experience and design materials in this field, improving both their design level and reputation. This, in turn, allows them to receive more projects in the same domain, forming a virtuous cycle and driving the company's specialization in the field. Specialization often occurs in large-scale public or commercial building projects, such as sports buildings, medical buildings, and commercial complexes.

In the architectural design market of "new urbanization," from a scale development perspective, design enterprises will evolve towards a dual-tier model of "large and comprehensive" or "small and specialized." On this basis, the advantages accumulated by design enterprises in branding, regionalization, and specialization will continue to help companies move towards healthier development.

2.3. Popular Development Areas in Local Architectural Design in Recent Years

(1) **Urban Renewal**

During the 40 years of rapid urbanization, some areas or buildings that were less than ideal, overlooked, or have become outdated have inevitably emerged. As large-scale urbanization gradually fades, the renovation and renewal of these old communities will become one of the major issues in the next phase of urban construction.

(2) **Rural Revitalization**

In addition to urbanization in core cities, the construction of the Greater Bay Area also promotes the rapid development and revitalization of surrounding rural areas. Eco-friendly livability is key to rural revitalization, with green development as the guiding principle. A good rural environment is an essential part of promoting the development of the Greater Bay Area alongside urban growth.

(3) **Historical Building Protection and Renovation**

The Greater Bay Area is located in the Lingnan cultural circle, with a long history and rich culture. Historical buildings from different periods are scattered throughout the region. As urbanization progresses, there is increasing awareness across society about protecting historical heritage. In the field of architecture, several outstanding historical buildings, whether ancient, modern, or contemporary, have significant historical meanings. The emerging research on historical building protection and renovation will gradually increase the number of projects focused on preserving and updating these historic structures.

(4) **Transit-Oriented Development (TOD) and Station-City Integration**

With the large-scale development of the Guangdong-Hong Kong-Macao Greater Bay Area urban cluster, the high urbanization rate, high urban density in core city areas, and strong transportation infrastructure in the Pearl River Delta region, the TOD urban development model will become the main development mode in this region in the next phase.

(5) **Urban Underground Space and Pedestrian Walkway Systems**

In the central areas of developed cities, there is high urban density, limited land resources, well-developed public transportation, and large-scale underground space development. Based on these characteristics, urban design focuses on integrating and systematically utilizing underground spaces to create a seamless urban environment with interconnected above-ground and underground spaces, providing convenient pedestrian walkways. This has become one of the key issues in urban design.

(6) **Campus Architecture**

The development of the Greater Bay Area cannot be separated from strong support for the education sector. In Shenzhen, in particular, several emerging universities, such as Shenzhen Normal University, Shenzhen Ocean University, and Shenzhen Innovation and Creative College, have been approved and are actively under construction. This campus construction boom will lead to a surge in local campus architectural design and construction projects.

(7) **Healthcare and Wellness Architecture**

Within the Greater Bay Area, Shenzhen is a latecomer compared to other core cities in terms of accumulated healthcare resources. Similar to the development of campus buildings, Shenzhen's recent large investment and support for the healthcare sector have been enormous. The COVID-19 pandemic significantly increased the demand for healthcare resources, and as a result, healthcare, wellness, and elderly-friendly buildings have become important hotspots in the architectural industry in Shenzhen in recent years.

3. Outlook of the Architectural Design Major in Higher Vocational Education

In recent years, the development of the architectural design industry has broadly followed new trends in digitalization, intelligence, and sustainability, all of which are integrated with digital technologies of the digital era or proposed as solutions to environmental pollution issues. While these development directions may appear different on the surface, with distinct goals, they fundamentally all stem from the development of the architectural design discipline. Therefore, when considering the training of talent for the design industry, the development path should firmly follow the principle of "solidifying the foundation before expanding," meaning that the focus of architectural design major development should first be on building a strong foundation in the profession, and then, with a solid foundation, further develop the profession in line with industry trends.

3.1. Exploring a Multi-path Specialized Talent Cultivation Mechanism within the Major

Construction engineering is a complex industry chain, and architectural design is an important part of this chain. Due to the complexity of construction engineering, the design phase is typically divided into several stages based on the characteristics of each period. Architecture undergraduate education generally follows a five-year curriculum, with a higher student level compared to vocational education. Thus, there is ample time and resources to conduct a full-cycle system training of students through the "Bauhaus" system. However, vocational education for architectural design is limited by a three-year curriculum and a lower student level, which may lead to a situation where students receive generalized, rather than specialized, training. Additionally, students are often burdened with tight schedules and assignments during the limited academic years, leaving little

room for engaging with professional development activities that broaden their view or promote the personal development of their specialization. Therefore, vocational education in architectural design can explore a specialized talent cultivation model within the current limited curriculum, optimizing the development of vocational architectural design programs.

From the perspective of the current architectural design market in China, the exploration of specialized talent cultivation in vocational architectural design can generally be divided into two steps: the near-term and mid- to long-term. Near-term Step 1 — Within the existing framework, the specialized training plan is divided into two branches: the early-stage specialization direction of architectural design engineering and the mid- to late-stage specialization direction of architectural design engineering. If the talent cultivated in this first step receives market recognition and positive evaluation, further specialization paths can be developed as market demand matures, leading to the second step, which focuses on the mid- to long-term multi-path specialization in talent cultivation.

The current near-term specialization path specifically divides the original single talent training path into two directions: the early-stage specialization direction of architectural design engineering (focused on design methods) and the mid- to late-stage specialization direction of architectural design engineering (focused on the creation of construction drawings). This division is based on the two main employment directions for talent in the industry. In the architectural design industry, architectural design engineering is generally divided into three main phases: conceptual design, preliminary design, and construction drawing design. Traditionally, the conceptual design phase or the phase before the design is submitted for approval is referred to as the "early-stage design engineering." In this phase, the design team's focus is on creating the design plan, aligning the project's intentions with the client's needs, and completing the architectural design through technical bidding, negotiations, and communication. This phase requires designers to have a good understanding of creative design, quick design and expression abilities, strong skills in aesthetic drawing, and proficiency in relevant software. As the project completes the approval process and enters the preliminary design and construction drawing stages, the phase is commonly known as the "mid- to late-stage design engineering." At this stage, the design team's focus shifts from conceptual design to optimizing the plan's details, adjusting the design to meet regulations, and coordinating with other professionals. This phase requires designers to have solid knowledge of building construction, understanding of relevant design standards, and strong skills in computer drafting. It is clear from the above that the requirements for designers in these two stages are significantly different.

Therefore, the first step in the exploration of specialization in vocational architectural design is the division into the "early-stage direction" and the "mid-to-late-stage direction," which is directly in response to the market demand for talent as outlined above[3]. In the specific implementation of specialized training, students can be assigned to different specialization directions through a "voluntary registration + exam selection" system in the second semester of their sophomore year. The original class structure remains unchanged, and most of the professional courses for both directions are taught according to the original plan, with specialized optimization applied only to courses strongly related to each direction. For example, in the same course, "Small Building Rapid Design," the "early-stage direction" focuses on design methods, quick design techniques, and relevant training, while the "mid-to-late-stage direction" focuses on quickly and accurately expressing the design plan, expressing analysis diagrams, and operating drawing software, and so on. Students who complete the corresponding specialized training can be awarded a certification of specialization completion by the college upon graduation, which enhances the recognition of specialized certifications in the employment market.

Next, if the market response to the first step of specialization is positive, the second step of exploring multi-path specialization in talent cultivation for the mid- to long-term can be initiated accordingly. Step 2 involves further specialization based on the first step, focusing on more segmented employment market demands and building multiple specialization paths. Due to the particularity of the architecture discipline, fields related to architectural design, such as urban and rural planning, urban design, landscape design, and interior design, have high overlap with architecture design and an expanding segmented employment market. Therefore, the mid- to long-term multi-path specialization in Step 2 can be guided by these related fields, establishing more specialization paths that better match market needs.

If multi-path specialization in vocational architectural design can be successfully implemented, it will create a more market-oriented and flexible talent cultivation mechanism within the existing three-year curriculum and current training framework.

3.2. Parallel Development of Vocational Associate Degree and Bachelor's Degree in Architectural Design

The expansion of enrollment has led to increased competition for jobs among university graduates. The pressure on employment in "popular cities for job seekers" or "popular majors for university entrance" is especially prominent. In Shenzhen, and even in the Greater Bay Area, the job market for architectural design faces the double challenge of being in a "popular city for job seekers" and "a popular major for university entrance." As a result, the competition in the architectural design job market in this region is fierce. State-owned and local large architectural firms typically set higher entry requirements for fresh graduates, such as prioritizing candidates from "211," "985," or "Top Eight Universities" with postgraduate degrees. These firms offer numerous positions with better pay and benefits. However, the recruitment positions for vocational college graduates are limited, with lower salaries and benefits. On the other hand, Shenzhen has the advantage of numerous private architectural design companies that have flexible hiring systems. These companies care more about whether employees can bring better work abilities for the same salary expenditure. As a result, many of these private design companies actively welcome vocational college graduates, making them the main employment destination for local vocational architectural design graduates in recent years. Therefore, the local job market for vocational design graduates is still relatively favorable.

However, it is important to note that the job market competition tends to have a downward compatibility,

meaning that as competition intensifies, high-level talents may occupy and push out employment opportunities originally meant for mid-level or entry-level talents. Today, China's construction industry has entered the "stock market," with some design companies already facing low project output and shrinking production values. Changes in the market will inevitably impact the existing employment environment for the major. Since vocational education is inherently positioned at a lower selection level than undergraduate education, avoiding or minimizing the competition between vocational graduates and undergraduate graduates for job positions is a key issue to ensure the survival and continued development of the vocational architectural design major [4]. In this regard, vocational education must focus on market demand, fundamentally improving the core competitiveness and market recognition of vocational graduates.

Currently, as China is vigorously developing vocational education, it is a timely opportunity to leverage favorable policies and actively explore the parallel development model of vocational associate degrees and vocational bachelor's degrees. In terms of architectural design students' cultivation, the vocational associate degree program should continue to deepen the "architect's assistant" talent training focus and upgrade the role of "assistant" to include design assistants, engineering assistants, and general assistants, rather than limiting it to drafting assistants. When conditions allow, the vocational bachelor's degree in architectural design should be established to align with general undergraduate education, with the talent cultivation plan building upon the current associate degree education and integrating relevant practices from regular bachelor's programs. The objective is to strengthen the specialization of the profession and improve the students' awareness of design methods, project creation, and market awareness, as well as their awareness of design services. The talent cultivation goal should be to develop "assistant architects" or "architects."

Regarding the feasibility of establishing a vocational bachelor's degree in architectural design, this is a discipline combining artistic creation and engineering technology. The close connection between professional education and practical engineering aligns well with the vocational colleges' emphasis on school-enterprise cooperation. Therefore, vocational education in architectural design has vast potential for development. When the opportunity arises, a vocational bachelor's degree in architectural design can be developed in parallel with regular undergraduate education. The undergraduate program would focus on theory and practice, while the vocational program would emphasize school-enterprise cooperation. Regular undergraduate programs have advantages in theoretical learning, while vocational bachelor's degrees provide a competitive edge in training talent closely aligned with market and engineering needs. In the foreseeable future, with increased national investment in vocational education, vocational architectural design bachelor's programs will quickly emerge, producing graduates who can match regular undergraduates and even surpass them in certain specialized fields. Moreover, the establishment of a vocational graduate program will fundamentally help develop the "modern apprenticeship" model in vocational education, enabling a more tailored approach to teaching, thereby allowing vocational education and regular undergraduate education to collaborate in cultivating and delivering high-quality construction talents for the country.

4. Conclusion

From the broader development trends in the construction industry, with the continuous advancement of urbanization, the transformation of the construction industry has already begun. The architectural design industry, being a part of this transformation, is actively seeking new growth points within the "stock market" to ensure its survival in times of change. As vocational education plays a critical role in cultivating foundational talent for the architectural design market, it must also develop healthily alongside the industry. To achieve this, vocational education must face the challenges head-on, seize the opportunity provided by the strong national support for the development of vocational education, and make timely self-optimization and upgrades in response to market demands. Only in this way can vocational architectural design programs continue to improve and thrive in the long run.

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