

University of Alberta

**Comparative Analysis of Curriculum Design and Teaching Methods in Environmental
Design: A Focus on China and Canada**
By

Ziyi Chen

A capping exercise submitted to the Faculty of Education
In partial fulfillment of the requirement for the degree of

Master of Education
in
Educational Policy Studies

Faculty of Education

Edmonton, Alberta
April 7, 2025

Abstract

This capping exercise presents a comparative analysis of environmental design programs in higher education institutions in China and Canada. While both countries offer undergraduate degrees in this field, the disciplinary positioning, curricular structure, and pedagogical approaches differ significantly. In China, environmental design is generally situated within the broader category of art and design education, emphasizing cultural aesthetics and spatial expression. In contrast, Canadian programs are often located within either art and design institutions (e.g., University of Manitoba) or architecture faculties (e.g., University of Calgary), focusing more on sustainability, professional skills, and interdisciplinary integration. Drawing on institutional documents, curriculum frameworks, and scholarly literature, this study examines how socio-cultural, policy, and educational contexts shape the formation and delivery of environmental design education. The paper further explores the impact of neoliberal educational reforms and global market pressures on the creative disciplines, highlighting tensions between artistic individuality and standardized, employability-driven outcomes. The findings provide insight into how the integration of theory, practice, and cultural relevance can inform future curriculum development in environmental design education in both national and global contexts.

Keywords: environmental design education, curriculum comparison, Canada, China

Table of Contents

Introduction	4
Background and Rationale for the Study	4
Purpose of the Capping Exercise	6
Concept Clarification	8
Comparative Method	11
Courses Content	12
Core Courses	13
Elective Courses	14
Practical Courses	15
Pedagogical Approaches	16
Evaluation System	21
Conclusion	23
References	24

Introduction

Environmental Design is an interdisciplinary major involving architectural design, landscape design, urban planning, public art, sustainable development and other fields. With the acceleration of global urbanization and the improvement of ecological environmental protection awareness, environmental design plays a vital role in promoting livable cities, improving public spaces, and promoting the development of green buildings (Fu et al., 2020). In recent years, with the development of new technologies such as artificial intelligence, smart buildings, and digital twins, the boundaries of environmental design have been continuously expanded, and its education model and discipline system are undergoing profound changes (Han, 2024).

Although the environmental design education system around the world has certain commonalities in subject content and training objectives, factors such as historical development, policy orientation, cultural background, and market demand in different countries still lead to significant differences in their course structure, teaching methods, and evaluation systems. For example, China's environmental design is usually classified as an art design discipline, emphasizing spatial aesthetics, artistic expression, and cultural heritage, while Canada's environmental design focuses more on engineering technology, ecological sustainability, and practice orientation. This difference in disciplinary positioning directly affects students' learning paths, career development directions, and industry application models. This capping exercise explores China and Canada as comparison programs, mainly based on the following considerations.

Background and Rationale for the study

Canada and China represent two typical development models in environmental design education. China's environmental design majors are mainly established in art schools or design schools of comprehensive universities. Students trained often have both art and design

thinking, and the curriculum emphasizes traditional skills such as modeling foundation, spatial composition, and artistic expression. Canada's environmental design majors are usually assigned to schools of architecture or urban planning, and pay more attention to the architectural environment, engineering technology, and sustainable development, and cultivate professional talents for industry needs. This difference has led to different characteristics in the environmental design curriculum systems of the two countries in terms of training objectives, teaching methods, and evaluation systems.

Secondly, the different policy orientations and market demands of the education systems of the two countries have led to the differentiation of the development direction of environmental design majors (Han, 2024). China's environmental design industry is deeply driven by urbanization, real estate market, and infrastructure construction, and the market demand is strong, which makes colleges and universities consider more content highly related to the industry, such as urban planning, architectural decoration, and landscape design, in their curriculum settings. On the other hand, Canada's environmental design industry pays more attention to the influence of green building regulations and environmental sustainability policies, so the curriculum system tends to include ecological urban planning, sustainable building design, low-carbon technology and other directions (Central Academy of Fine Arts; China Academy of Art ; Tsinghua University, Academy of Arts & Design.; Tongji University, College of Design and Innovation; Jiangnan University; University of Calgary, Faculty of Environmental Design; University of Manitoba, Faculty of Architecture., n.d.). This difference in market demand has led to different development trends in the content and practice of environmental design education in the two countries.

In addition, the difference in teaching methods is also an important aspect worth exploring. Environmental design teaching in Chinese universities adopts the model of classroom lectures and studio practice, emphasizing basic theory and professional training,

and supplemented by graduation design as the final assessment standard. On the other hand, the environmental design courses of Canadian universities tend to be more project-based learning and studio-based learning, emphasizing students to conduct practical training in real environments, and even requiring students to complete industry projects in the course to improve their employment competitiveness. This difference in teaching methods directly affects students' practical ability, innovative thinking and career readiness during the learning process.

With the intensification of global ecological problems, the deepening of the concept of sustainable development, and the new trend of intelligent design brought about by technological innovation, environmental design education in countries around the world is constantly adjusting and optimizing to meet future development needs. As representative countries in the environmental design education system, the differences in education models between China and Canada not only provide the value of comparative research, but also provide reference for future curriculum reform and international cooperation.

Purpose of the Capping Exercise

I completed my undergraduate studies at a faculty of art in China, majoring in environmental design. My education followed a typical art academy model, with an emphasis on spatial aesthetics, traditional culture, and artistic expression. After coming to Canada to pursue further study, I encountered unexpected difficulties when applying for graduate programs. I found that environmental design as an independent master's program was extremely limited in Canadian universities. Only a few universities such as the University of Calgary and the University of Manitoba offered it, and most of them were affiliated with the School of Architecture or Urban Planning. This comparison prompted my research interest: why do the same majors show such different development paths in the two countries? It is important to note that, although both programs are called environmental design, they are not

in fact the same major. The similarity lies in the name, but the academic structure, disciplinary orientation, and educational focus are significantly different.

Based on personal experience, this capping exercise attempts to understand the diverse positioning of the environmental design major in a cross-cultural context; from an academic perspective, the comparison between China and Canada helps to reveal the multiple aspects and development trends of design education in the process of globalization and education marketization.

In order to carry out this comparative exercise, the author first consulted the official websites of representative universities in China, including the Central Academy of Fine Arts, China Academy of Art, and Academy of Fine Arts of Tsinghua University among the eight major art academies, and Tongji University and Jiangnan University among comprehensive universities, and systematically sorted out their curriculum settings, teaching concepts, faculty configuration, and degree awarding structure in environmental design. At the same time, by searching the official websites of Canadian universities, especially searching for keywords such as ‘environmental design and university and Canada’ on the Internet, the author selected representative universities that offer related majors at the undergraduate or master's level, such as University of Calgary, University of Manitoba, and focused on analyzing their characteristics in terms of professional affiliation, course classification, teaching methods, and evaluation methods. In addition, the author also referred to academic literature on art and design education in recent years, especially research results on studio teaching, marketization trends of courses, and development of digital teaching, to ensure the breadth of comparative perspective and theoretical support for analysis.

Concept Clarification

Before comparing the environmental design education systems in China and Canada, it is crucial to clarify the definition, subject classification and development background of the

discipline in the two countries. Environmental Design, as an interdisciplinary discipline, involves multiple directions such as architectural environment, landscape design, urban planning, public art, and ecological sustainable development (Sachs, 2018). The understanding and subject division of environmental design in the higher education system are different, which not only affects the structure and teaching content of the course, but also determines the training goals and future career development paths of students. Therefore, before conducting a comparative analysis, it is necessary to clarify the core concepts of environmental design to ensure the comparability of the programs and provide a basis for the subsequent discussion of courses, teaching methods and evaluation systems.

In China, environmental design is usually classified as an art design discipline, established in art colleges, design schools or architecture schools of comprehensive universities, and its curriculum system emphasizes the combination of artistic expression, cultural and spatial composition (School of Design, Jiangnan University, n.d.). China's environmental design major is not only widely established in the eight major art academies (such as the Central Academy of Fine Arts and the China Academy of Art), but also occupies an important position in the art and design schools or architecture schools of comprehensive universities such as Tsinghua University and Tongji University. The major courses cover areas including space design, public art, interior and landscape design, and cultivates students' abilities in visual expression, space shaping and artistic creation. The degree awarded is usually a bachelor's degree in design. Under this disciplinary framework, environmental design is focused on the combination of aesthetics and art, especially on creating spatial experiences with cultural value through design, and emphasizing respect for historical and regional characteristics.

In Canada, the subject classification of environmental design can be divided into two main directions. One is the environmental design major established in art and design faculty,

such as Ontario University of Art and Design (OCAD University) (Shimizu, 2013). Its teaching model and course structure are similar to those of China's environmental design major, focusing on space design and visual expression, and cultivating students' abilities in creativity and design expression. This program pays more attention to the shaping of personal artistic style, while combining modern technical means to provide a variety of expressions for environmental design. The other category in Canada is the environmental design major established in the architecture school of a comprehensive university, such as the environmental design major at the University of Calgary and the University of Manitoba. These programs are usually closely integrated with architecture, urban planning and landscape architecture, emphasizing the structural logic, technical application and sustainable design of the environment and space. In these schools, environmental design is regarded as part of the built environment, and the courses cover building structure, ecological sustainable development, green energy management, and other contents. After graduation, students are often able to enter the construction industry, urban planning agencies or the field of environmental sustainable development. This different disciplinary affiliation determines the differences in course focus, teaching methods, and evaluation standards in environmental design education between China and Canada.

As a discipline, environmental design is explained as follows: Environmental design can refer to the applied arts and sciences dealing with creating the human-designed environment. These fields include architecture, geography, urban planning, landscape architecture, and interior design. This definition shows that environmental design involves both applied arts and science and technology, and covers multiple fields such as architecture, urban planning, landscape design, and interior design. Further, the concept of environmental design is also constantly expanding, gradually including directions such as historical preservation, lighting design, and sustainability issues, and expanding to fields such as

product design and industrial design. Especially in the contemporary context, with the enhancement of environmental awareness and the promotion of the concept of sustainable development, the research field of environmental design has also expanded to ecological buildings, smart cities, renewable energy technologies, etc. (Chermayeff & Plunz, 1982). These changes have directly affected the education system of the discipline, gradually expanding it from the traditional field of spatial design to a broader social, economic, and technological intersection. Barnwell (2021) pointed out that design is an information processing process that depends on research and is influenced by cognitive processes. In modern society, design is no longer just about the construction of space, but is closely related to social interaction, environmental adaptation, and ecological balance. It uses research tools to address global challenges such as social equity, economic sustainability, and environmental protection (Chermayeff & Plunz, 1982).

In China, the establishment of environmental design as an independent discipline is closely related to reform and opening up (Chinese: Gaige Kaifang). At the end of the 20th century, with the acceleration of urbanization, the Chinese government began to vigorously promote the construction of buildings and infrastructure, and the concept of environmental design has been developed in this process. In 1997, design was officially separated from the literature discipline as a first-level discipline, and environmental design became one of its subordinate professional directions (Han, 2024). The official website of the China Academy of Art shows that its Environmental Art Department originated in 1984 and was officially established in 1989, becoming one of the earliest colleges and universities in China to establish an environmental design major. The environmental design major of the Central Academy of Fine Arts is classified in the category of social design. It combines social design with art therapy, promotes the strategies of breaking the wall and opening the loop, and integrates interdisciplinary knowledge in the traditional undergraduate teaching system.

These measures reflect that China's environmental design education has been exploring how to combine social needs with artistic creation to achieve more culturally influential spatial design.

At the same time, the Environmental Design program at Tongji University emphasizes the teaching concept of 'holistic, people-oriented, and interdisciplinary integration'. Its curriculum system is committed to creating a sustainable 'life-space ecosystem' (Tongji University, n.d.), covering the experience, place creation and system-related design in the process of interaction between people and the environment. The core goal of this major is to cultivate students' interdisciplinary vision, so that they have independent thinking, research ability and innovation ability in the face of complex and uncertain situations (Tongji University, n.d.). Compared with the more artistic environmental design courses of the Central Academy of Fine Arts and the China Academy of Art, the curriculum system of Tongji University is closer to the model of Canadian architecture schools, emphasizing the combination of technology, engineering and spatial functions, and paying attention to the impact of social changes on the environment.

Comparative Method

Due to the significant differences in the subject affiliation and curriculum system of environmental design between China and Canada, this exercise does not simply compare majors with the same name, but analyzes based on the similarities of curriculum structure, teaching methods and training objectives. This comparative method can better reflect the core concept of environmental design talent training in different education systems, and also avoids one-sided conclusions caused by different subject classifications.

In terms of the selection of program sites, this capping exercise covers China's art academies, comprehensive universities, and Canada's architecture schools to ensure the comprehensiveness and representativeness of the comparison. China's environmental design

major is mainly established in art colleges or design colleges, and the course content emphasizes artistic expression, spatial composition and cultural heritage, such as the environmental design major of the Central Academy of Fine Arts and Tsinghua University. In Canada, environmental design has different affiliations in different universities. There are art colleges such as Ontario University of Art and Design, and there are also environmental design courses dominated by architecture schools such as the University of Calgary and the University of Manitoba. The latter focuses more on architectural technology, urban planning and sustainable development.

The purpose of this capping exercise is to explore the differences in environmental design education between Canada and China.

Courses Content

Although the environmental design courses in China and Canada both cover spatial design, landscape design, architectural environment, sustainable development, human-computer interaction and other directions, there are differences in course structure, teaching focus, elective direction and practical course arrangement. In order to illustrate these differences, this capping exercise compares four aspects in the programs: core courses, elective courses, practical courses and interdisciplinary courses. In China, environmental design is classified under the broader field of art and design education, which explains why literature in art and design is relevant to this discussion. In art and design education in many countries, the setting of course content is often affected by national policies (Han, 2024). The implementation of national courses has prompted art education to emphasize practice and application more, while theoretical discussions have gradually been marginalized (Allison & Hausman, 1998).

In the curriculum structure of many art and design programs, the emphasis often leans toward practical skill training, while key theoretical issues tend to be simplified or

marginalized. Meyer and Norman (2020) argue that design education has increasingly prioritized technical competence and problem solving, sometimes at the expense of deeper theoretical engagement. Similarly, Shreeve et al. (2010) and Orr et al. (2014) point out that many art and design courses focus more on applied studio practices, with limited opportunities for students to explore the conceptual foundations of design. This shift may weaken students' development of critical thinking and limit their ability to make informed design decisions based on broader disciplinary knowledge. In environmental design programs, which already integrate multiple disciplines, maintaining a balance between technical application and theoretical understanding is essential. Therefore, how to design curricula that integrate both skill development and critical reflection has become a pressing concern for educators in this field.

Core Courses: Different Orientations of Basic Ability Training

In environmental design education, core courses play the role of laying the foundation for students' basic professional skills in all programs. Although the core courses of universities in the two countries are similar, they are different in specific content and focus.

In China, environmental design courses are mainly centered on artistic expression and spatial composition, emphasizing traditional design skills such as hand-drawing ability, architectural expression, and modeling foundation. For example, the environmental design courses of the Central Academy of Fine Arts (Central Academy of Fine Arts, n.d.) include architectural sketching, design expression, hand-drawn perspective, and spatial composition. These courses emphasize students' understanding of spatial aesthetics and conveying design concepts through visual expression. In addition, courses such as architectural design foundation, materials and design, and environmental physics are also core contents to help students master building structure, material application, and environmental adaptability. According to the curriculum information provided on university websites, environmental

design programs in China are usually offered under faculties of fine arts or design. This institutional alignment results in a strong emphasis on aesthetic expression and visual creativity, which structurally differs from Canadian programs.

In contrast, Canada's core courses in environmental design are more inclined to technology application and engineering orientation, involving architectural science, energy management, sustainable development theory, and other contents. For example, the core courses of the environmental design major at the University of Manitoba (University of Manitoba, n.d.) include green building design, architectural technology and materials, environmental sustainability analysis, and so on. In addition, universities in both countries usually offer courses such as Ergonomics and Environmental Psychology to enable students to pay attention to the interaction between people and the environment in design. In contrast, environmental design programs in Canada, as shown on the websites of institutions such as the University of Manitoba and the University of Calgary, are typically housed in faculties of architecture or environmental studies. This reflects a distinct academic orientation, focusing more on technological application and sustainability than on artistic training.

Elective Courses: the Influence of Culture and Market Demand

In addition to core courses, the setting of elective courses in universities in China and Canada also reflects different cultural orientations and market demand orientations. In China, elective courses in environmental design often emphasize the combination of culture and traditional skills to help students incorporate local characteristics into their designs. For example, the environmental design majors of the Central Academy of Fine Arts and the China Academy of Art (Central Academy of Fine Arts., n.d.) offer elective courses such as Chinese ancient architecture research, traditional garden design, and jewelry craft foundation to cultivate students' understanding and application of traditional Chinese design elements. In addition, some local universities, such as Jiangnan University (School of Design, Jiangnan

University, n.d.), also offer elective courses such as folk architecture inheritance and innovative design to enhance students' understanding of local culture.

In Canada, elective courses tend to reflect the broader trend of sustainable design. The elective courses in Canadian universities (University of Manitoba, n.d.) also cover a wider range of social issues, and there are different elective courses for students in different directions. For example, for indoor environments, there are indoor lighting and color, interior design media, which help students master the relationship between visual experience and material expression; for landscape and urban planning, there are *Possible Urbanization* studio, landscape plus urbanization history, urban design principles, etc., emphasizing that design should find a balance between social structure, economic benefits and ecological sustainability. Such a course arrangement provides students with the opportunity to think and practice design in a diverse context, and also reflects the Canadian academic system's high attention to real-world issues and global trends.

Practical Courses: Traditional Art Investigation vs. Real Project Practice

Both Chinese and Canadian universities have set up certain practical courses, but their methods and emphases are different. In China, the practical courses of environmental design in universities are mainly based on national art investigation and traditional cultural research. For example, many art colleges will arrange courses such as Silk Road folk art(in Gansu & Xinjiang) investigation, Hui style architecture(in Huizhou prefecture of Anhui) research, and Dunhuang art (in Gansu Province) field investigation. Students learn environmental design styles in different historical periods through field research. In addition, Chinese universities will also arrange architectural site investigation and short-term internships, but most courses are still based on art exploration and space research (School of Design Jiangnan University, n.d.).

The practical courses of environmental design in Canada are centered on studio-based

learning and corporate cooperation projects. For example, the University of Manitoba (University of Manitoba, n.d.) sets up community design workshops every year, allowing students to propose environmental transformation plans around the city theme of the year's update, and cooperate with government agencies or non-profit organizations to complete the project. Similarly, the environmental design major of the University of Calgary (University of Calgary, Faculty of Environmental Design., n.d.) also requires students to participate in actual projects, such as green building transformation and public space planning. This model allows students to exercise their design capabilities in a real environment and improve their professional competitiveness.

Pedagogical Approaches

Teaching methods not only affect the way students acquire knowledge, but also directly determine their practical ability and innovative thinking. According to Schulman (2005), if a learning and teaching practice is distinctive in the profession, universal in the curriculum, and exists in the teaching institutions of the discipline (De La Harpe & Peterson, 2009), then the learning and teaching practice is regarded as a signature teaching method. Due to its practical characteristics, environmental design education has more diverse requirements for teaching methods, especially in China and Canada, where the studio model (Studio-Based Learning) is at the core and plays a unique role in subject teaching. According to Green and Bonollo (2003), studio-based teaching has long been a defining feature of design education, offering opportunities for experiential, iterative learning and close mentor-student interaction.

In China, the environmental design majors of art colleges and comprehensive universities generally adopt studio-based learning as the main teaching method. For example, the Environmental Design Department of the China Academy of Art (China Academy of Art., n.d.) has established the Landscape Architecture Design Institute and the Human Settlement

Environment Laboratory, which combines research and practice to allow students to explore different design methods through experiments and spatial practice. Meanwhile, the *Ten Studios* of the Central Academy of Fine Arts (Fu et al., 2014) is an experimental teaching platform for interior design, with the main teaching direction being an integrated design method of architecture and interior space based on urbanization research. These studio teaching models have played an important role in China's environmental design education system, enabling students to develop their design thinking and gain practical experience in the context of real projects (Fu et al., 2014; Central Academy of Fines Arts). This approach not only allows students to be more directly exposed to industry needs, but also encourages them to develop independent spatial design capabilities (Fu et al.,2014).

In Canada, the studio model is also an important part of environmental design teaching, but unlike Chinese institutions that prefer art-oriented studios, Canadian Studio-Based Learning usually places more emphasis on interdisciplinary collaboration and practicality. For example, the environmental design courses of the School of Architecture in University of Manitoba (University of Manitoba, Faculty of Architecture., n.d.) emphasize actual projects and are closely integrated with industry needs, enabling students to apply what they have learned in real environments. As Sachs (2018) mentioned, many contemporary architectural discussions include the core concept of environmental design, which is to focus on the environment rather than the individual building itself, emphasize interdisciplinary collaboration, and pay special attention to social and environmental constraints.

In addition to the studio model, Canada's environmental design education also widely adopts project-based learning. For example, in the environmental design course of the School of Architecture in University of Manitoba (University of Manitoba, Faculty of Architecture., n.d.), students need to participate in real projects throughout the semester, such as urban planning transformation, public space optimization, green building design, etc., and finally

present the design results to industry experts (University of Manitoba, n.d.). Through this model, students can not only master theoretical knowledge, but also improve teamwork, problem-solving ability and industry adaptability in the process of practice. In the evaluation system of environmental design majors, it is not enough to just examine students' technical ability. What is more important is to evaluate students' creativity, problem-solving ability, and adaptability to real-world environments. Clemons (2006), in a case study conducted in U.S. secondary schools, found that students and teachers highly valued experiential interior design projects because they not only supported art education standards but also effectively promoted students' ability to apply design principles in real-life contexts. Although the study was based in a secondary school context, its findings highlight the broader pedagogical value of experiential, real-world design projects—something that is comparatively underemphasized in China's environmental design education. Although Chinese universities also include project-based courses, they are often observed in the form of graduation projects. Based on the curriculum information available on university websites, these projects tend to emphasize artistic expression and conceptual development, while typically involving less focus on practical feasibility or engineering implementation.

At the undergraduate level, China's environmental design teaching method tends to be more lecture-based learning, especially in theoretical courses, where academic research has a greater weight, and students need to master the basic principles of environmental design through a lot of theoretical learning (Fu & Han, 2010). For example, in the environmental design curriculum system of Tsinghua University and Tongji University, theoretical courses include an introduction to environmental design, architectural technology, spatial analysis, design aesthetics, etc. These courses lay a solid theoretical foundation for students, but the proportion of practical operations is relatively low. In addition, Chinese universities still retain the training of handcraft and traditional techniques, such as pottery, woodworking,

sculpture and other courses. In environmental design education, many lecturers are industry practitioners themselves. They not only bring first-hand practical experience, but also help students establish cognition of the professional world. However, if we want to give full play to the value of practitioners in teaching, we need to help them integrate into the higher education community and make them realize how their practical experience can be effectively transformed into teaching resources (Shreeve, 2009). This means that universities not only need to provide training to help practitioners adapt to the education system, but also support them to maintain their professional identity in teaching so that students can better understand the value of practical knowledge.

The limitations of online teaching have had a certain impact on students' learning experience. In China, home learning has prevented students from entering the studio on campus to make physical models. Problems such as unstable networks, low computer configuration, difficulty in obtaining materials, and lack of a common learning atmosphere have limited students' design practice ability (Fu et al., 2020; Gram et al., 2004). In the face of these challenges, how to use online networks supported by artificial intelligence (AI), machine learning (ML), and precise algorithms to improve the ability of remote collaboration, virtual space design, and refined management has become one of the future development directions of environmental design education (Fu et al., 2020). At the same time, Marshalsey (2021) pointed out that there are many challenges in this transformation in the early stages, such as how to support practical courses in a virtual environment, how to optimize online communication methods, and how to improve students' reflection and interaction abilities. This suggests that future environmental design education should conduct a more in-depth study on how to use online tools to enhance the teaching experience of physical practice, ensuring that students can not only master design theory, but also conduct effective design practice through virtual means.

Environmental design education in China and Canada has both commonalities and characteristics in teaching methods. The teaching model of Chinese universities focuses more on artistic expression, theoretical knowledge and traditional skills, while Canadian environmental design education emphasizes interdisciplinary cooperation, industry practice and sustainable design. The studio model has many positive aspects and it offers much to the learning occurring in art and design disciplines (Budge, 2012). In addition, the 2019–20 iteration of Collaborative Futures proposed by McAra and Ross (2020) can have value for design educators seeking new approaches to designing and delivering studio-based design learning that fosters creative, multidisciplinary communities of practice and collaborative capacity-building for students in a professional setting. In the future, with the development of intelligent technology, the deepening of globalization and the popularization of distance learning, the environmental design teaching models of both countries may usher in new changes. How to introduce modern technology, improve the efficiency of distance learning, and strengthen industry cooperation based on the traditional studio model will become a key issue in the reform of environmental design education.

Evaluation System

The following comparison of evaluation systems is based on publicly available curriculum and program information from university websites in China and Canada, as well as my own academic experience as a student in both countries.

In China, environmental design students are commonly assessed through a combination of theoretical exams, project reviews, and a final graduation project. Based on my own academic experience, written examinations remain present in certain courses, particularly those involving theory—such as the history of environmental design, architectural theory, or spatial analysis. However, the primary method of evaluation is the assessment of design work. Students are expected to demonstrate their artistic creativity and

spatial logic through studio projects, often evaluated on innovation, visual expression, and conceptual coherence. Graduation projects, a key part of the evaluation system, typically involve completing a comprehensive individual design proposal followed by a public defense. These projects tend to emphasize conceptual and artistic thinking, with less attention paid to technical feasibility or real-world implementation.

In contrast, environmental design programs in Canada tend to emphasize practicality and real-world application in their assessment models. According to curriculum structures available on the websites of institutions such as the University of Manitoba and the University of Calgary, students are evaluated not only through studio reviews, but also through ongoing formative assessments, team-based projects, and, in some cases, partnerships with industry. The studio model emphasizes iterative design development, where students receive feedback at various stages from instructors, peers, and sometimes external professionals. This continuous review system encourages students to refine their ideas throughout the process, in contrast to the more summative evaluation seen in many Chinese programs.

In both systems, traditional assessment approaches have often prioritized individual output. However, as Fathallah (2021) points out, students develop a stronger sense of responsibility and collaboration when they recognize that their personal success is closely tied to the performance of their team. In this regard, Canadian programs are increasingly incorporating collaborative elements into evaluation, including peer assessment, group goal setting, and team reflection. Although some Chinese programs have started exploring similar methods, such practices are still not widely institutionalized.

In terms of employment preparedness, there are also noticeable differences. Many Chinese graduates—myself and peers included—typically undergo a 2–3 year internship period after graduation before fully entering the design profession. This seems to reflect a gap

between academic training and the expectations of the professional market. As a result, some universities in China are starting to integrate more practice-based components into their evaluation methods, such as encouraging short-term internships. In Canada, the stronger emphasis on project execution and applied design throughout the program seems to ease the transition into the job market, even if environmental design roles do not initially offer salaries as high as engineering or technical fields.

Over the centuries, the label of good design has been applied to work by those with an intuitive feel for how people will respond to space, as well as work by designers who seem little concerned with human response, satisfaction, or comfort (Wener, 2008). In the context of environmental design programs—especially those that differ significantly in structure and disciplinary alignment across national contexts—this tension raises important questions about what should be valued and assessed in student learning. Although China and Canada both offer programs titled environmental design, their institutional settings and educational goals differ substantially. As such, further investigation is needed into how evaluation systems in these programs can better reflect both conceptual strength and practical, human-centered design outcomes.

Conclusion

This capping exercise compares environmental design programs in China and Canada by examining curriculum content, teaching methods, and evaluation systems. A key observation throughout the study is that, although the programs share the same name, they are situated within different disciplinary frameworks: in China, environmental design is primarily positioned within fine arts and design faculties, whereas in Canada it is often offered under faculties of architecture. This difference shapes the overall education goals, teaching strategies, and assessment priorities in each context.

The analysis highlights how Chinese programs tend to emphasize visual aesthetics,

artistic expression, and conceptual development, while Canadian programs focus more on technical competence, sustainability, and interdisciplinary integration. These findings reflect broader institutional and cultural orientations, rather than a uniform global model of environmental design education.

Given the contrasts, this exercise suggests understanding how the same program title may present different academic realities is essential when considering cross-national program development or academic mobility. This comparison also provides a reference point for reflecting on how program structure and disciplinary affiliation influence teaching and learning outcomes in environmental design. Further research based on empirical data and broader institutional sampling could help refine the understanding of how environmental design is implemented globally, and how context-specific values are embedded within curriculum and pedagogy.

Reference

- Allison, B., & Hausman, J. (1998). The limits of theory in art education. *Journal of Art & Design Education*, 17(2), 121-127.
<http://doi.org/10.1111/1468-5949.00116>
- Barnwell, M. (2021). *Design and Culture : A Transdisciplinary History*. Purdue University Press.
- Budge, K. (2012). A question of values: why we need art and design in higher education. *Art, Design & Communication in Higher Education*, 11(1), 5–16.
https://doi.org/10.1386/adch.11.1.5_1
- Central Academy of Fine Arts. (n.d.). *环境设计专业介绍*. Retrieved March 4, 2025, from
<https://www.cafa.edu.cn>
- China Academy of Art. (n.d.). *环境艺术系概况*. Retrieved March 4, 2025, from
<https://www.caa.edu.cn>
- Chermayeff, S., & Plunz, R. (1982). Design and the public good: Selected writings, 1930-1980. (*No Title*).
- Clemons, S. A. (2006). Interior Design Supports Art Education: A Case Study. *International Journal of Art & Design Education*, 25(3), 275–285. <https://doi.org/10.1111/j.1476-8070.2006.00494.x>
- De La Harpe, B., & Peterson, J. F. (2009). Through the learning and teaching looking glass: What do academics in art, design and architecture publish about most?. *Art, Design & Communication in Higher Education*, 7(3), 135-154.
http://doi.org/10.1386/adch.7.3.135_1
- Elkins, J. (2001). *Why art cannot be taught: A handbook for art students*. University of Illinois Press.

- Fathallah, R. (2021). Pedagogies for Democratic Participation in Design Studios: Towards More Inclusive Group Work among Interior Design Students. *International Journal of Art & Design Education*, 40(4), 736–747.
<https://doi.org/10.1111/jade.12385>
- Fu, Y., Han, T. & Han, W.Q. (2014). Discovery -- Teaching Experiments of Interior Design within the Framework of Construction Education in Art Colleges Chinese Art(05), 86-93.
- Fu, Y. & Han, T. (2010). Yifangfa Yanjiu Weidao Xiangde Biye Sheji Jiaoxue Shijian 以方法研究为导向的毕业设计教学实践 [*Graduation design teaching practice guided by method research*]. Art Research (01), 77-80.
<http://doi.org/10.13318/j.cnki.msyj.2010.01.001>
- Fu, Y., Han, T. & Han, W.Q. (2020). Pipande Kechixu: Guanyu Weilai Jianzhu Jiaoyu Kongjian Yanjiuyu Shejide Jiaoxue Sikao 批判的可持续：关于未来建筑教育空间研究与设计的教学思考 [*Critical sustainability: Teaching thoughts on future architectural education space research and design*]. (eds.) 2020 Collection of Interior Design Papers, 40-45. School of Architecture, Central Academy of Fine Arts
<http://doi.org/10.26914/c.cnkihy.2020.063160>
- Gram, N. P., Kanuka, H., & Norris, S. P. (2004). Distance education environments, higher education, and the concern for community. *PAACE Journal of Lifelong Learning*, 13, 39–56.
- Green, L. N. and Bonollo, E. (2003), ‘Studio-based teaching: history and advantages in the teaching of design’, *World Transactions of Engineering and Technology Education*, 2:2, pp. 269–272.
- Han, T. (2024). Episode 1: Modernization Design Research: Course Description.
https://www.bilibili.com/video/BV11r421H7k3/?share_source=copy_web

- Marshalsey, L. (2021). Talking to Art and Design Students at Home: Evaluating the Differences in Student Engagement Online. *International Journal of Art & Design Education*, 40(4), 702–713. <https://doi.org/10.1111/jade.12382>
- McAra, M., & Ross, K. (2020). Expanding Studio Boundaries: Navigating Tensions in Multidisciplinary Collaboration within and beyond the Higher Education Design Studio. *International Journal of Art & Design Education*, 39(4), 795–810. <https://doi.org/10.1111/jade.12324>
- Meyer, M. W., & Norman, D. (2020). *Changing design education for the 21st century. She Ji: The Journal of Design, Economics, and Innovation*, 6(1), 13–49. <https://doi.org/10.1016/j.sheji.2019.12.002>
- OCAD University. (n.d.). *Environmental Design Program Overview*. Retrieved March 4, 2025, from <https://www.ocadu.ca>
- Orr, S., Yorke, M., & Blair, B. (2014). “The Answer Is Brought about from within You”: A Student-Centred Perspective on Pedagogy in Art and Design. *International Journal of Art & Design Education*, 33(1), 32–45. <https://doi.org/10.1111/j.1476-8070.2014.12008.x>
- Raizman, D. S. (2011). *History of modern design* (2nd ed.). Pearson Prentice Hall.
- Rintoul, J. (2014). Theory and (in) practice: The problem of integration in art and design education. *International Journal of Art & Design Education*, 33(3), 345–354.
- Sachs, A. (2018). *Environmental design : architecture, politics, and science in postwar America*. University of Virginia Press.
- School of Design, Jiangnan University. (n.d.). Environmental design. <https://sodcn.jiangnan.edu.cn/info/1015/1846.htm>
- Shimizu, R. (Leiko). (2013). Does Accreditation Matter for Art & Design Schools in Canada? *College Quarterly*, 16(1).

- Shreeve, A. (2009). "I'd Rather Be Seen as a Practitioner, Come in to Teach My Subject": Identity Work in Part-Time Art and Design Tutors. *International Journal of Art & Design Education*, 28(2), 151–159.
<https://doi.org/10.1111/j.1476-8070.2009.01602.x>
- Shreeve, A., Sims, E., & Trowler, P. (2010). A kind of exchange: Learning from art and design teaching. *Teaching in Higher Education*, 15(3), 291–301.
<https://doi.org/10.1080/13562511003740752>
- Shulman, L. (2005, February). The signature pedagogies of the professions of law, medicine, engineering, and the clergy: Potential lessons for the education of teachers. In *Talk Delivered at the Math Science Partnerships (MSP) Workshop: "Teacher Education for Effective Teaching and Learning" Hosted by the National Research Council's Center for Education February* (pp. 6-8).
- Sparke, P. (2020). *An introduction to design and culture : 1900 to the present* (4. ed.). Routledge.
- Tsinghua University, Academy of Arts & Design. (n.d.). 专业课程结构. Retrieved March 4, 2025, from <https://www.tsinghua.edu.cn>
- Tongji University, College of Design and Innovation. (n.d.). 环境设计专业介绍. Retrieved March 4, 2025, from <https://www.tongji.edu.cn>
- University of Calgary, Faculty of Environmental Design. (n.d.). *Master of Environmental Design (MEDes)*. Retrieved March 4, 2025, from <https://www.ucalgary.ca>
- University of Manitoba, Faculty of Architecture. (n.d.). *Environmental Design Undergraduate Program*. Retrieved March 4, 2025, from <https://umanitoba.ca>
- Wener, R. (2008). History and Trends in Environmental Design Research (Edr). *Journal of Architectural and Planning Research*, 25(4), 282–297.

Wen, Y. (2016). Weidade Zhongguo Gongye Geming: Fazhan Zhengzhi Jingjixue Yiban

Yuanli Pipan Gangyao 伟大的中国工业革命：发展政治经济学一般原理批判纲要

[*The Great Chinese Industrial Revolution: Outlines of a Critique of the General*

Principles of the Political Economy of Development]. Qing hua da xue chu ban she.

Wilkinson, R. G. (2020). Creative Arts Personal Pedagogy vs Marketised Higher Education:

A Battle between Values. *International Journal of Art & Design Education*, 39(3),

536–549. <https://doi.org/10.1111/jade.12295>