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PHILIPPINE LANDSCAPE HERITAGE EDUCATION:

Review of the preparedness of Landscape Architecture curricula in the Philippines for the
specialization of Landscape Heritage Conservation (LHC)

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ABSTRACT

(Résumé)

In the Philippines, the study of Landscape Architecture, the art and science of planning, designing, and implementing functional and aesthetic arrangements of natural scenery and land, is a tailor-fitted course anchored to the ecology and local setting of the country. At present, there are only four (4) higher education institutions offering Landscape Architecture bachelor's degree with one (1) of them offering a master's degree programme. Landscape architecture in the Philippines is a vibrant profession and graduates are well equipped to create beautiful spaces fitted to the taste of the current generation. However, the current teaching of landscape architecture is not well grounded on the knowledge of the country's past, and perspectives of indigenous materials, planting techniques and traditional building techniques passed down to generations are not integrated to the curriculum. This research aims to identify and review the preparedness of Landscape Architecture curricula in the Philippines for the specialization of Landscape Heritage Conservation (LHC). Courses from the Universities were selected and organized based on the identified and reviewed thematic areas and course concentrations, subsequently these are given quantitative scoring assessment for LHC. Utilizing the 'Geodesign' framework, the study formulated a developmental process and validation of the interrelationship and collaborative activity created by the thematic areas. The study also provided a joint SWOT – PESTEL analyses in supporting the preparation of the 'Knowledge, Skills, and Abilities' to be obtained by the students from the LHC specialization. Landscape Heritage Conservation (LHC) shall create new possibilities for the profession through the study and professionalization of cultural and natural landscapes, thus, raising awareness and significance of cultural heritage and heritage conservation in the lenses of the Philippine landscapes.

Aux Philippines, l'étude de l'architecture du paysage, l'art et la science de la planification, la conception et la mise en œuvre d'aménagements fonctionnels et esthétiques de paysages naturels est une formation sur mesure intégrée à l'écologie et au contexte local du pays. Actuellement, il n'existe que quatre (4) établissements d'enseignement supérieur proposant une licence en architecture du paysage, dont un (1) proposant un programme de maîtrise. L'architecture du paysage aux Philippines est un secteur dynamique et les diplômés possèdent une formation solide leur permettant de créer des espaces harmonieux adaptés au goût de la nouvelle génération. Cependant, l'enseignement actuel de l'architecture du paysage ne se fonde pas sur la connaissance du passé du pays ; et les perspectives des matériaux autochtones, des techniques de plantation et de construction traditionnelles transmises de génération en génération ne sont pas intégrées au programme. Cette recherche a pour objectif l'identification et l'examen de l'état de préparation des programmes en architecture du paysage aux Philippines pour la spécialisation Conservation du patrimoine paysager (LHC). En fonction des domaines thématiques et des unités d'enseignements identifiés et examinés, des cours universitaires ont été sélectionnés et organisés, puis ont reçu une évaluation quantitative pour la spécialisation Conservation du patrimoine paysager. En utilisant le programme-cadre « Geodesign », l'étude a élaboré un processus de développement et de validation de l'interrelation et de l'activité de collaboration créée par les domaines thématiques. L'étude proposée a également fourni des analyses SWOT-PESTEL conjointes pour soutenir la préparation des « connaissances, compétences et capacités » que les étudiants de la spécialisation LHC doivent acquérir. La Conservation du patrimoine paysager (LHC) créera de nouvelles opportunités pour la profession à travers l'étude et la professionnalisation des paysages culturels et naturels, augmentant ainsi la sensibilisation et l'importance du patrimoine culturel et de sa conservation dans le cadre des paysages philippins.

KEY-WORDS

(Mots-clés)

Landscape Architecture – Landscape Heritage Conservation – Philippines – Specialization

Architecture du paysage - Conservation du patrimoine paysager - Philippines – Spécialisation

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LIST OF ACRONYMS

ASEAN	- Association of Southeast Asian Nations
BIM	- Building Information Modeling
BulSU	- Bulacan State University
CHED	- Commission on Higher Education
DYCLAM+	- DYNamics of Cultural Landscape, heritage, Memory and conflictualities
EMJMD	- Erasmus Mundus Joint Master Degree
GDipLS	- Graduate Diploma in Landscape Studies
GDP	- Gross Domestic Product

GNI	- Gross National Income
GIS	- Geographic Information System
ICOMOS	- International Council on Monuments and Sites
ICOMOS PH	- International Council on Monuments and Sites Philippines
ICT	- Information and Communications Technology
IGP	- Integrated Graduate Program
IUCN	- International Union for Conservation of Nature
LHC	- Landscape Heritage Conservation
MLArch	- Master of Landscape Architecture
MTLA	- Master of Tropical Landscape Architecture
NCCA	- National Commission for Culture and the Arts
NHCP	- National Historical Commission of the Philippines
PALA	- Philippine Association of Landscape Architects
PhDDBE	- Doctor of Philosophy in the Designed and Built Environment
PESTEL	- Political, Economic, Socio-demographic, Technological, Environmental and Legal
PRECUP	- Philippine Registry of Cultural Property
UNESCO	- United Nations Educational, Scientific and Cultural Organization
UNDP	- United Nations Development Programme
UP	- University of the Philippines
USA	- University of San Agustin
USC	- University of San Carlos
WHC	- World Heritage Centre
WHS	- World Heritage Site
SEA	- Southeast Asia
SWOT	- Strengths, Weaknesses, Opportunities and Threats
TA	- Thematic Area
TU	- Teaching Unit

INTRODUCTION:

LANDSCAPE ARCHITECTURE COURSES IN THE PHILIPPINES

In the Philippines, the study of Landscape Architecture, the art and science of planning, designing, and implementing functional and aesthetic arrangements of natural scenery and land, is a tailor-fitted course anchored to the ecology and local setting of the country. At present, there are four (4) higher education institutions offering Landscape Architecture bachelor's degree namely: University of the Philippines – Diliman in Quezon City, University of San Carlos in Cebu, Bulacan State University in Malolos, Bulacan, and University of San Agustin in Iloilo (see Table 1). A master's degree programme is also available at the University of the Philippines Diliman which is focused on the specialization of Tropical Landscape Architecture. Landscape architecture in the Philippines is a vibrant profession and graduates are well equipped to create beautiful spaces that tailored to the taste of the current generation. However, the current teaching of landscape architecture is not well grounded on the knowledge of the country's past, and perspectives of indigenous materials, planting techniques and traditional building techniques passed down to generations are not integrated to the curriculum. In June 2020, the Board of Landscape Architecture (BOLA) who governs the practice of landscape architecture in the country announced to the members of the Philippine Association of Landscape Architects (PALA) its intention to create another specialization that focuses on "Landscape Heritage Conservation" (LHC). This specialization is intended to cater to the growing need of practitioners to develop new skills and further understanding of issues pertaining to heritage conservation, historical landscapes and culture. Given the existing landscape architecture curriculum in the Philippines, this study aims to review the preparedness of the mentioned bachelor's and master's degree courses for the specialization of LHC. Through the International Council on Monuments and Sites (ICOMOS) – Philippines and Philippine Committee on International Scientific Committee on Cultural Landscapes (ISCCL), this research aims to identify the gaps of knowledge within landscape architecture educational curricula and how it relates to heritage conservation and cultural landscapes. The research will also provide recommendations for specialization, moreover, creating avenue of potential themes to improve the content that can be taught to practitioners with respect to heritage conservation.

Educational Institution	College / Department	Bachelor	Year	Master	Year
University of the Philippines ¹	Architecture *	✓	4	✓	2
University of San Carlos ²	Architecture	✓	4	-	-
Bulacan State University ³	Architecture and Fine Arts	✓	4	-	-
University of San Agustin ⁴	Technology	✓	4	-	-

* *Master of Tropical Landscape Architecture (MTLA)*

Table 1: Universities offering the Bachelor and Master of Science in Landscape Architecture degree
Source: Kenneth J. Tua, 2020

The abovementioned four (4) universities shall serve as the baseline data source for the research in acquiring further information for local programs with heritage specialization in other universities within the Philippines and abroad that can be applied in the Bachelor and Mater degree courses.

¹University of the Philippines - Diliman, 2018. Landscape Architecture Curriculum. *UPD College of Architecture*. Available at: <https://upca.upd.edu.ph/> [Accessed July 27, 2020].

²University of San Carlos, 2017. Landscape Architecture Curriculum. *Department of Architecture - University of San Carlos*. Available at: <http://www.usc.edu.ph/academic/department/23> [Accessed July 27, 2020].

³Bulacan State University, 2019. Landscape Architecture Curriculum. *College of Architecture and Fine Arts | Bulacan State University*. Available at: https://www.bulsu.edu.ph/academics/colleges.php?college_id=CAFA [Accessed July 27, 2020].

⁴University of San Agustin, 2016. Landscape Architecture Curriculum. *University of San Agustin*. Available at: <https://www.usa.edu.ph/college-of-technology.html> [Accessed July 27, 2020].

OBJECTIVES: LANDSCAPE HERITAGE CONSERVATION, RATIONALE AND SIGNIFICANCE OF THE SPECIALIZATION

Landscapes are essential drivers in urban design even in the most dense and largest of cities. Dealing with the natural environment and cities, are the genuine ‘theatres of operations’ for landscape architects in the professional arena. (Rekittke, 2018).¹¹ Although the landscape architecture profession has been critical in creating green buffers and environmental lungs in cities, there has been a trend on professional education towards training ‘soloists’, professionals who are detached from other fields of study that aim to improve people’s quality of life in other ways. The goal and design of the current educational system is to master all skills and knowledge needed for effective professional activity such as identifying problems, analyzing them, planning and designing solutions, directed to seeing them built to the satisfaction of one’s self, clients and peers. (Steinitz, 2020).¹³ Ways to conduct more holistic educational approaches that value well-crafted spaces that enrich the cultural lives of people and respect the layering of the history of cities is immensely needed in developing the Philippine urban metropolis.

Landscape Heritage Conservation (LHC) is derived from two words. ‘Landscape Heritage’, a combination of ‘natural heritage’ and ‘cultural heritage’ that deals with the conservation of both non-living phenomena and living phenomena. (Goodchild, 2007).⁶ Both phenomena in the natural environment where these landscapes are situated represents diverse and rich biodiversity together with a large variety of ecosystems and habitats. In the Philippines, biodiversity and natural history are tightly linked with geological history. There is great diversity in the geological histories of the many islands. Luzon and Mindanao, i.e. consists of large areas that are more than 25 million years old, while the others are generally of more recent age, from 10 million to no more than 100,000 years (Alcala, 1998).⁷ In fact, the Philippines’ landscapes are said to probably harbor more diversity of life than any other country on the planet on a per unit area basis (Tanhueco – Tumapon, 2018)¹² and as quoted by Dr. Lawrence Heaney, an American mammalogist, ecologist and biogeographer, Philippine mammal may have the highest percentage of species ‘endemism’ in the world on a hectare – for – hectare basis, and this could be true for other groups as well (Alcala, 1998).⁷

“The Philippines is one of 18 mega-biodiverse countries of the world, containing two-thirds of the earth’s biodiversity and between 70% and 80% of the world’s plant and animal species. The Philippines ranks fifth in the number of plant species and maintains 5% of the world’s flora. Species endemism is very high, covering at least 25 genera of plants and 49% of terrestrial wildlife, while the country ranks fourth in bird endemism. The Philippines is also one of the world’s biodiversity hotspots with at least 700 threatened species, thus making it one of the top global conservation areas. The national list of threatened faunal species was established in 2004 and includes 42 species of land mammals, 127 species of birds, 24 species of reptiles and 14 species of amphibians.” (UNEP, Convention on Biological Diversity, 1994)⁵

The International Union for Conservation of Nature (IUCN) and most other major international conservation organizations have come to regard the Philippines as one of the highest priority countries in the world for conservation concern. One of the three main reasons is the extraordinarily high percentage of uniqueness or ‘endemism’ amongst these species – i.e. about 67% of species amongst the major groups of animal and plants found in the Philippines occur nowhere else in the world (Heaney & Oliver, 1996).⁸ There is a need for conservation education on the natural environment with both lenses in the natural heritage and cultural heritage facets to be able to protect these diverse landscapes and the living and non – living phenomena it greatly upholds.

“The need for conservation education is true even within the highest socioeconomic and most educated classes, where the decision – makers have little knowledge of, and therefore interest in, the protection of the remnants of the country’s natural heritage, whether for reasons of patrimony or for its intrinsic importance to the human environment. The reasons for this lack appreciation of the Philippine’s natural heritage are not hard to find, since the topic is not covered in any school curricula at the present time.” (Heaney & Oliver, 1996)⁸

And ‘Conservation’ defines as the measures taken to extend the life of cultural heritage while strengthening transmission of its significant heritage messages and values. In the domain of cultural property, the aim of conservation is to maintain the physical and cultural characteristics of the object to ensure that its

value is not diminished and that it will outlive our limited time span. (UNESCO, 1998).⁹ This specialization of Landscape Heritage Conservation is a possible breakthrough profession not only on the national scale but also regional specifically in Southeast Asia.

It is an opportunity for Landscape Architects to anchor themselves to the academic facets of the profession and to find working opportunities beyond the urban architectural typology of cities. Bringing back the prime responsibility of Landscape Architects as vanguards of correcting abusive one-sided pro-economic and politics biased practices on altering natural land resources for development without noticing their impacts towards the ecology and environment. It reiterates landscape architecture as a vital field that can educate the current generation on the preciousness of the environment and its heritage (Kamal, 2011).¹⁰

The scope and limitations of the study are the ff.: 1) Identifying and choosing possible thematic areas and course concentrations for the specialization of LHC, 2) Selecting and reviewing courses from the four (4) Universities related to LHC and the proposed thematic areas and course concentrations, 3) Choosing courses from the Landscape Architecture curricula of the Universities are based on its course title, course information (if provided), and cross – checked with the Landscape Architecture syllabi, 4) The allocation of units and equivalent time per identified course concentration as well as the required prerequisite from the thematic areas is not covered in this study, and 5) The study is initiated as part of the ICOMOS Philippines Internship programme wherein the research is bounded within the limit of its time duration.

This research can be used as a tool to engage discussions with the Board of Landscape Architecture (BOLA) in its development of the specialization of Landscape Heritage Conservation currently being planned. Study topics and themes identified can be the starting point of training programmes that can benefit students of the four (4) universities in the study and landscape architecture professionals alike. This will eventually translate to benefits to society as heritage conservation methodologies are developed by practitioners who can apply such knowledge to places of cultural significance and develop learnings to concrete heritage laws and policies protecting landscapes.

⁵ Convention on Biological Diversity, 1994. Philippines. Convention on Biological Diversity. United Nations Environment Programme (UNEP). Available at: <https://www.cbd.int/countries/profile/?country=ph> [Accessed October 2020].

⁶ Goodchild, P.H., 2007. Landscape Heritage, Biosphere Change, Climate Change and Conservation A General Approach and an Agenda. International Council on Monuments and Sites (ICOMOS). Available at: https://www.icomos.org/risk/world_report/2006-2007/pdf/H@R_2006-2007_51_Special_Focus_Landscape_Heritage.pdf [Accessed August 10, 2020].

⁷ Heaney, L. R., Kitching, R.L., & Regalado, J., 1998. Vanishing Treasures of the Philippine Rain Forest. Oxford Academic. Journal of Mammalogy, Volume 82, Issue 1, February 2001, pp. 246–247. The Field Museum, Chicago, Illinois. ISBN 0-914868-19-5. Available at: [https://doi.org/10.1644/1545-1542\(2001\)082<0246:R>2.0.CO;2](https://doi.org/10.1644/1545-1542(2001)082<0246:R>2.0.CO;2) [Accessed October 3, 2020].

⁸ Heaney, L. R. & Oliver, W. L. R., 1996. Biodiversity and Conservation in the Philippines. ResearchGate. International Zoo News Vol. 43, No. 5, pp. 329 – 337. Available at: https://www.researchgate.net/publication/285863842_Biodiversity_and_conservation_in_the_Philippines [Accessed October 3, 2020]

⁹ International Centre for the Study of the Preservation and Restoration of Cultural Property (ICCROM), 1998, Risk Preparedness: A Management Manual for World Cultural Heritage. Available at: <http://uis.unesco.org/en/glossary-term/conservation>. [Accessed August 10, 2020].

¹⁰ Kamal, N.F., 2011, Landskap Tingkatkan Kualiti Hidup Manusia, Utusan Malaysia.

¹¹ Rekitke, J., 2018. Challenges and Approaches of Landscape Research and Design in the Global South. ResearchGate. Available at: https://www.researchgate.net/publication/331732965_Challenges_and_Approaches_of_Landscape_Research_and_Design_in_the_Global_South [Accessed August 10, 2020].

¹² Tanhueco - Tumapon, T., 2018. The many faces of biodiversity education. The Manila times. Available at: <https://www.manilatimes.net/2018/08/24/opinion/analysis/the-many-faces-of-biodiversity-education-6/434014/> [Accessed October 2, 2020].

¹³ Steinitz, C., 2020. On Landscape Architecture Education and Professional Practice and Their Future Challenges. MDPI. Available at: <https://www.mdpi.com/2073-445X/9/7/228> [Accessed August 10, 2020].

REVIEW OF RELATED LITERATURE: THE STUDY OF CULTURAL LANDSCAPES FOR LANDSCAPE HERITAGE CONSERVATION

The World Heritage Convention (WHC) first recognised the protection of cultural landscapes on its 16th session and adopted guidelines concerning their inclusion in the World Heritage List in 1992.¹⁸ The Rice Terraces of the Philippine Cordilleras was recognised as the first cultural landscape in the World Heritage List during that year. Since the passing of the guidelines, the landscape architecture profession in the Philippines has not yet fully maximized the potential concepts, theories, and legal frameworks surrounding these landscapes. The detailed study of cultural landscapes remains an untapped opportunity in Philippine education and professional heritage training.

According to the Operational Guidelines for the Implementation of the World Heritage Convention (UNESCO, 2008):

“Cultural landscapes are cultural properties and represent the “combined works of nature and of man” designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.” (WHOG, Annex 3, 47, 2008)¹⁸

There are three (3) main categories to Cultural Landscapes: 1) Designed landscapes and created intentionally by people, 2) Organically evolved landscapes, and 3) Associative cultural landscapes. (WHOG, Annex 3, 10 (iii), 2008).¹⁸ In the Philippine setting, the landscape architecture profession is mostly focused on the understanding of the first category of cultural landscapes - ‘built landscapes’ intentionally designed and created by people. Landscape architects in the Philippines need to have more awareness of the other two categories of landscapes through an updated educational approach which the LHC hopes to provide.

Early findings show some research by pioneering landscape architects that look at heritage conservation as part of their landscape architecture specialization. Galingan & Nadal (2018) wrote about ‘Tracing the Urban Cultural Landscape Structure of Manila Sacred Space: A Case Study of Malate Church Grounds’ which show the stratum of structure identified through the patterns seen in user movement, physical dimensions, landscape components and features, as well as urban linkages within the ‘flexible open space’ of the religious area.¹⁶ Caballero (2015) in his write up ‘Recent Discussions of Cultural Landscapes in the Philippines’ identified various initiatives by practitioners in spatial mapping plaza complexes in Pampanga, culture-nature adaptations of different households at the Batad Rice Terraces in the Cordilleras, and documenting of important heritage trees in urban landscapes in the country.¹⁵ Such findings denote that ‘associative landscapes’ are living places with roles in contemporary society, associated with traditions, evolving over time. (WHOG, Annex 3, 47, 2019)¹⁶ To studies analyzing the ‘organically evolved landscape’ with the example of the Rice Terraces in Mayoyao, Ifugao, Philippines, records show that rice has been cultivated in Asia for 2,000 years, contrary to that belief, it is actually around 500 years old based on the recent data from Ifugao Archaeological Project (IAP) (See Figure 1).¹⁴

“Previously, the dating of the inception of the Ifugao rice terraces was placed at 2,000 – 3,000 years ago. However, our findings show that landscape modification for terraced wet-rice cultivation started at around 1650. Excavations at the Old Kiyangan Village also imply that the region had continuous contact/interaction with lowland and other highland groups between about 1600 and the late 1800s, refuting the idea of isolation. Due to the standardized Philippine history curricula, contemporary Ifugao identity is falsely based on the narrative of being uncolonized, which denotes that they are representatives of “original Filipinos,” thus exoticizing the people. This is reinforced by the idea that the famous rice terraces are at least 2,000 years old. Breaking these historical myths and decolonizing history entail a long-term curricular change that emphasizes local history and humanizes the Ifugao.” (Acabado et al., 2020)¹⁴



Figure 1: The Rice Terraces in Mayoyao, Ifugao, Philippines, initially believed to be about 2,000 years old based on early academics' researches is proven only 500 years old according to architectural energetics.

Source: Save the Ifugao Terraces Movement and Bhong Tawana, 2020

<http://onlinedigeditions.com/publication/?m=16146&i=660136&p=8&fbclid=IwAR1KamaQtPFsPciGKANQnP06A2KYmOHHkwKyYdcxT0cjo8XZgefWNFCzpZw>

These recent findings denote that besides the evolution that came to an end while its distinguishing features are visible in material form, show that cultural landscapes today are living place with roles in contemporary society, associated with traditions, evolution is still in progress and significant material evidence is present. (WHOG, Annex 3, 47, 2019).¹⁸ Supporting this definition of the World Heritage Convention correlates with Acabado's (2020) argument on "contemporary Ifugao identity being falsely based on the narrative of being uncolonized, denoting that they are representatives of "original Filipinos," thus exoticizing these people's identities.¹⁴ Moreover, another study's survey results showed the importance of 'Identifying the connectivity of the local community and its cultural landscape, nourishing the connections through incorporation to the norms of the local community' and 'Preserving traditional knowledge systems and continue relevant knowledge transfer' (Tua, 2020). This strongly implies Acabado's argument and exemplifies the importance of analyzing the grass-root level history and traditions of a local community significantly contributes to the holistic identification of its cultural heritage.¹⁷

Such literature highlights other aspects of landscapes that are not covered in current landscape architecture educational programmes. LHC can aid in further understanding of the other two categories of Cultural Landscapes, hence, can pave way to recognition, professionalization and contribution of landscape architects in protecting more World Heritage Sites (WHS) under the Cultural Landscapes category (see Appendix for current Cultural Landscapes in Southeast Asia region). The dynamism of landscapes necessitates the need for trained professionals who can understand the challenge to sustain the continuity of these landscapes in the face of social and economic change.

¹⁴ Acabado, S. et al., 2020. Education and Heritage Conservation in the Philippines: Archaeology's Role in Curricular Change (Part 1). *The SAA Archaeological Record*. Available at: <http://onlinedigeditions.com/publication/?m=16146&i=660136&p=8&fbclid=IwAR1KamaQtPFsPciGKANQnP06A2KYmOHHkwKyYdcxT0cjo8XZgefWNFCzpZw> [Accessed August 23, 2020].

¹⁵ Caballero, G., 2015. Recent Discussions on Cultural Landscapes in the Philippines. *Academia*. Available at: https://www.academia.edu/13174722/Recent_Discussions_on_Cultural_Landscapes_in_the_Philippines [Accessed September 8, 2020].

¹⁶ Galangan, Z.D. & Nadal, C.D.S., 2018. Tracing the Urban Cultural Landscape Structure of Manila Sacred Space: A Case Study of Malate Church Grounds. *University of the Philippines - College of Architecture*. Available at: https://upca.upd.edu.ph/uploads/1/8/5/4/18549486/13_urban_cultural_landscape_structure.pdf [Accessed August 23, 2020].

¹⁷ Tua, K., 2020. ASEAN Endurance: Multi-sectoral coping mechanism for Southeast Asia's cultural landscapes amidst fear and human insecurity. *Instituto Politécnico de Tomar*. Gestos e palavras: a Humanidade em construção (Gestures and words: Humanity under construction).

¹⁸ United Nations Educational, Scientific and Cultural Organization (UNESCO), 1992. Cultural Landscapes. *World Heritage Convention (WHC)*. Available at: <https://whc.unesco.org/en/culturalallandscape/> [Accessed September 8, 2020].

METHODOLOGY: REVIEW OF LANDSCAPE HERITAGE CONSERVATION RELATED COURSES AND SUPPLEMENTARY COURSES FOR CURRICULUM INTEGRATION

The Landscape Architecture courses including supplementary courses were gathered through retrieving information from the official website and by contacting directly the assigned department of each current four (4) universities offering the curriculum in the Philippines. Data collated at the time of this study shall only be the basis of the findings as the curriculum might change in the future.

As majority of the thematic areas of courses and subjects in the Landscape Architecture curriculum focuses on the design, planning, visual techniques, utilities and recently towards sustainability, there is a lack of specialization on the themes of cultural heritage and heritage conservation. Academic institutions considering the probability of curriculum integration can be resolved through the specialization of Landscape Heritage Conservation, focusing first on the study of Cultural and Natural Landscapes which is one of the principal purposes of the specialization that can create diverse linkages on current identified and selected subjects. This is an opportunity that can incorporate new thematic areas for the course(s) without painstakingly beginning new curriculums and/or courses.

The four (4) universities in the Philippines with the Landscape Architecture curriculum were subjected to the selection of courses then were arranged and organized based on its relationship to the thematic areas identified from a chosen Erasmus Mundus Joint Master Degree (EMJMD) by the European Commission and its program partner Universities that exemplifies course concentrations significant to the curriculum integration of the specialization. According to the Erasmus Mundus Joint Master Degree in DYNamics of Cultural Landscape, heritage, Memory and conflictualities (DYCLAM+) (2019) and chosen identified programmes of UNESCO Chairs for Heritage Conservation, thematic areas and course concentrations were chosen. LHC specialization being a pilot programme requires good foundation of research in heritage conservation, by identifying courses from UNESCO Chairs which have undergone the meticulous process of selection and creation done by the experts of the field and had already acknowledged the key priority areas related to UNESCO's fields of competence – i.e. in education, the natural and social sciences, culture and communication (UNESCO Chairs Programme, 1992) (see Table 20) shall give LHC the right track on its pedagogy creation while taking into account Philippines' local setting. The following are the probable thematic areas for the specialization of Landscape Heritage Conservation: Computing / Information Technology, Conflictualities and Memory, Cultural Diplomacy, Cultural Geography, Natural Sciences, National Citizenship, Cultural Heritage Management, Epistemology, and Sustainability. Likewise, course concentrations under each thematic area were selected and tailor-fitted to the Philippine setting (see Table 2).

Based on the four (4) main groups of 'Geodesign' (see Figure 2), its collaborative framework (see Figure 4), chosen identified course concentrations for UNESCO Chairs' programme for Heritage Conservation and Integrated Landscape Management (see Table 2), and the framework formulated for LHC specialization (see Figure 5), the nine (9) Thematic Areas are chosen for the LHC specialization whereas are defined as follows:

Computing / Information Technology. The intervention of technology in the advancement of heritage conservation is vital in the future of preservation and restoration. The use of interactive websites, mobile applications, new multimedia and transmedia narratives, 2D and 3D photos, ethno-clips for heritage interpretation, content management system (CMS) and social media, 3D scanning, GIS, BIM or 3D reconstructions are the future of precise and detailed documentation and analysis of landscapes and heritage materials.¹⁹

Conflictualities and Memory. The 3rd millennium that spans from 2001 – 3000 revealed the major geopolitical stakes of cultural heritage. Geopolitical tensions affecting cultural heritage and cultural landscapes are compounded by the complexity of their management due to potential conflicts of interest. Economic externalities and uncontrolled tourism can pose a threat to the integrity of landscapes and eventually lead to a sociological upheaval in the natural and cultural environment.¹⁹

Cultural Diplomacy. The emergence of national and international awareness of the laws, policies and guidelines governing the landscapes and the natural environment plays the vital part in the protection against private entities and politics. Role in cultural diplomatic affairs serves an equally important role in the pro-creation and amendments specificity of heritage laws.¹⁹

Cultural Geography. The living cultural heritage of these local landscapes are inseparable from its meaning, as it faces problems from social and economic developments such as poverty, loss of culture, endangerment of indigenous language, emigration etc., the establishment of development of the territory through heritage and encouraging dialogue arises. This requires both the skills to pre-emptively evaluate projects and formulate management modalities that take into account the "behaviors" of the various stakeholders, not necessarily rational or concerned with guardianship of the values attested.¹⁹

Natural Sciences. The continuation of the hardscape and softscape design aspects of Landscape Architecture. Integration of traditional skills and indigenous knowledge on local and alternative materials retrieved from landscapes are highlighted. Collaboration with biologists, horticulturists, geologists, local craftsmen and related professions are encouraged to train professionals in the complex and integrated management of landscapes and nature conservation.²¹

National Citizenship. The Philippines composed of various native language and dialects, it serves as the interculturality and transdisciplinary when thinking between micro-cultures in Luzon, Visayas, and Mindanao. When understanding the cultural heritage on these specific localities, it is important to familiarize or at least know the basics of various native language and culture. This also calls for the study of prominent figures and icons in Philippine History like José Rizal, Fernando Amorsolo and the likes who prompted early perspectives and valuing in the local landscapes. Collaborative projects benefit from these areas through valuing and integrating the identity and experiential contributions of the indigenous and local people.¹⁵

Cultural Heritage Management. The specialization's focal component on dealing with the cultural heritage and heritage preservation facets of the landscapes. With the continuing modernization of built and natural landscapes, it is important to strike balance between conserving the physical integrity of the sites and nourishing their educational, historic and cultural values amidst the developing societal industries.²⁰

Epistemology. The classical natural sciences and its subsequent extension to the social and behavioral sciences dealing with the origin of history, nature of theories, and investigation of concepts. Further emphasizing heritage through analyzing socio-historical issues and epistemological issues of cultural goods and memory management of landscapes in coordination with conflictualities and memory thematic area.²²

Sustainability. The notion of sustainability and sustainable development on its application to the cultural landscapes has entered the Operational Guidelines as early as 1994, with reference to the "sustainable use" of cultural landscapes, then introduced for the first time as a new category of heritage properties (WHOG, 1994). This idea is further stressed on the 'Budapest Declaration' stating that to "ensure an appropriate and equitable balance between conservation, sustainability and development, so that World Heritage properties can be protected through appropriate activities contributing to the social and economic development and the quality of life of our communities". (WHOG, Budapest Declaration, 2002). To gain equal amount of socio-economic development and conservation products & practices through assessments and special projects pertaining to Sustainability and Territorial Development.²³

Thematic Areas	Course Concentrations
Computing / Information Technology	Remote Sensing, Digital Survey, Architectural Genetics, Virtual Reality (VR) and BIM – 3D Scanning and 3D reconstructions, and Geographic Information System (GIS)
Conflictualities and Memory	Geopolitics, Management of Risk and Conflicts, Conflicts of use and armed conflicts, Typology of National and International Crises, and Nationalization of ethnic and religious conflicts
Cultural Diplomacy	National and International Relations, Cultural and Heritage Policies, Policy and Project management, Policymaking and strategies, and Public Speaking
Cultural Geography	Interdisciplinary and Interculturality of Philippine Culture, Philippine Geography (Landscape Sites of Churches, Bahay na Bato, Pre-War etc.), Southeast Asian Territories and Landscapes, Cultural Heritage Mapping, and Professional and Collaborative Projects
Natural Sciences	Traditional Materials and Skills, Hardscape Construction, Local Softscape Material Selection, Indigenous Knowledge, Dynamic Management of Cultural Landscapes, Reconstruction of Cultural Landscapes, and Complex Integrated Landscape Management
National Citizenship	Indigenous Languages in the Philippines (Tagalog, Cebuano, Ilocano, Hiligaynon etc.), Learning on Historical and Contemporary Philippine figures and icons, and basic learning of Philippine Ancient Script: Baybayin
Cultural Heritage Management	Cultural Heritage Studies, Documentation and Cataloguing, Traditional Landscape Construction Methods, Archaeological Techniques, Site Conservation and Restoration, and Landscape Heritage and Development
Epistemology	History of Philippine Landscapes, Concepts and Theories of Safeguarding Cultural and Natural Landscapes, Cultural Tourism Studies and Cultural Novelty/Locality
Sustainability	Sustainable Development, Sustainable Heritage Management, Territorial Development, Research & Development (R&D), Quality Control and Applied Projects (for CMPs), and Environmental Impact Assessments (EIA), Tropical Landscape Architecture

Table 2: Thematic Areas and Course Concentrations for LHC Specialization.

Source: Kenneth J. Tua, 2020

¹⁹ Erasmus Mundus Joint Master Degree (EMJMD) in DYNamics of Cultural Landscape, heritage, Memory and conflictualities (DYCLAM+), 2018. Perspectives professionnelles. *Université Jean Monnet (Main Consortium)*. Available at: <https://masterdyclam.univ-st-etienne.fr/fr/le-master-dyclam/perspectives-professionnelles.html> [Accessed August 20, 2020]. (Université Jean-Monnet, Saint-Étienne, France, Instituto Politécnico de Tomar, Tomar - Mação, Portugal, Universitatea Babeş-Bolyai, Cluj – Napoca, Romania, Università Degli Studi Di Napoli Federico II, Naples, Italy)

Note: UNESCO Chair on Humanities and Cultural Integrated Landscape Management is represented by the UNESCO Chairholder Prof. Luiz Miguel Oosterbeek, PhD through the Instituto Politécnico de Tomar (2020).

²⁰ International Studies in History and Business of Art & Culture, 2017. Cultural Heritage Management. *IESA International*. Available at: <https://www.iesa.edu/paris/news-events/cultural-management-definition> [Accessed August 25, 2020].

²¹ Konsa, K., 2016. Natural and Cultural Heritage Framing Meanings and Practices. *ResearchGate*. Available at: https://www.researchgate.net/publication/308916504_Natural_and_Cultural_Heritage_Framing_Meanings_and_Practices [Accessed August 25, 2020].

²² Neave, G.R., 2006. Knowledge, power and dissent: critical perspectives on higher education and research in knowledge society. *UNESDOC Digital Library*. Available at: <https://unesdoc.unesco.org/ark:/48223/pf0000148591> [Accessed August 25, 2020].

²³ UNESCO World Heritage Centre (WHC), 2017. Sustainable Development. *UNESCO World Heritage Centre (WHC)*. Available at: <https://whc.unesco.org/en/sustainabledevelopment/> [Accessed August 25, 2020].

Justifying the thematic areas chosen for the specialization besides its course concentrations, the study used Steinitz (2020) 'Geodesign' and its framework as one of the bases in qualitatively validating the interrelationship and collaborative activity of the thematic areas. 'Geodesign' defines that the context of our geographic space conditions what and how we design (that is, how we adjust and adapt to our surroundings), has been with us since the beginning of time. Although the purpose of 'Geodesign' is normally used for geo-spatial processes like the Geographic Information System (GIS) and landscape planning, throughout the years it has provided notable professionals of different fields to study and design landscapes by using this as a framework. Frank Lloyd Wright (Architecture), Warren H. Manning (Landscape Architecture), and Ian McHarg (Regional Planning) (Miller, 2012).

"Deciding where to locate a tribal settlement, choosing materials to use to construct shelters, developing a strategy for hunting wild animals, deciding where to plant crops, or laying out the plans for defending a settlement from intruders are all geodesign-related activities. That is, the successful design of each of these depends on having adequate knowledge of the relevant geographic conditions and the ability to work with those conditions, as well as respecting the constraints and taking advantage of the opportunities suggested by those conditions." (Miller, 2012).

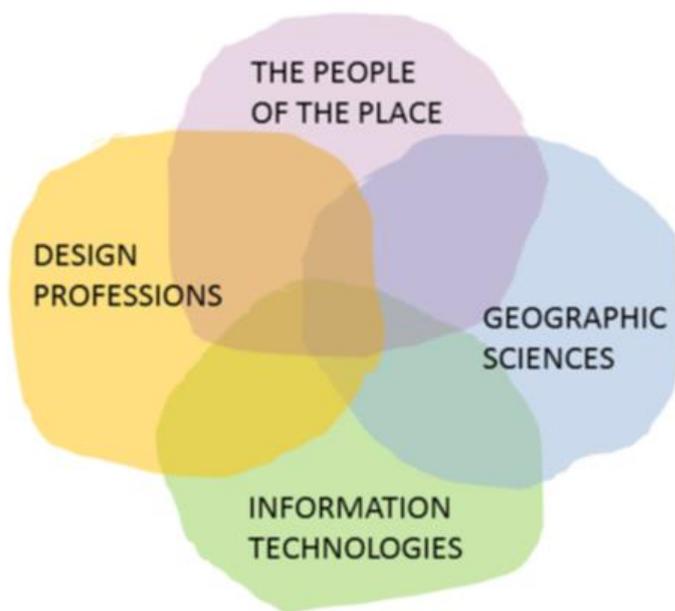


Figure 2: The communication and collaboration of the four groups is essential to the success of 'Geodesign', with figures color coded by the four groups.

Source: On Landscape Architecture Education and Professional Practice and Their Future Challenges by Carl Steinitz, 2020
<https://www.mdpi.com/2073-445X/9/7/228>

Reviewing the Landscape Architecture curricula in the Philippines gave an anchorage (design, planning and sustainability courses) of utilizing 'Geodesign' for LHC (see Tables 3 & 4). 'Geodesign' composed of communication and collaboration of the four (4) main groups namely: *Design Professions, The People of the Place, Geographic Sciences, and Information Technologies* (see Figure 1) in answering four (4) clear possibilities of the profession: 1) Concerned towards immediate and client-oriented projects, 2) Effectively design landscapes, 3) Consideration of the multi-sectoral aspects of landscapes such as food and water supply, biodiversity, cultural heritage, population increases, and climate change which are important shapers of landscapes, and 4) Recognition of the wisdom compared to other professions that do not distinguish rooted in the landscape itself and at all

sizes and scales: in its climate, geology, hydrology, ecology, vegetation, history, perception. Moreover, it is stated that the Landscape Architect's professional, scientific, and/or personal identity, are counted for on displaying the role of an informed professional by being able to contribute on the abovementioned four (4) main groups. Furthermore, thematic areas can be supported by categorizing it to the four (4) main groups (see Figure 3) and answering the six (6) questions from the 'Geodesign' framework without limiting the contribution to the different 'models' it's providing (see Figures 3 & 5). Albeit all nine (9) thematic areas are significant for the LHC specialization, the thematic areas placed on each model types served as the major contributor and involvement in the process of LHC (see Figure 5).

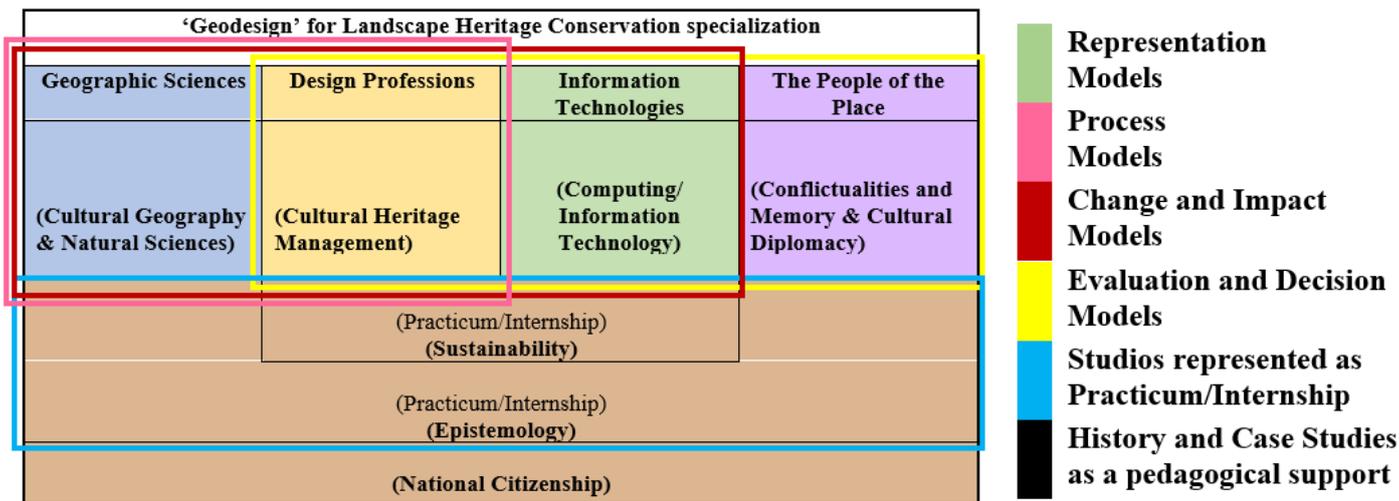


Figure 3: ‘Geodesign’ summary interrelationship diagram for the Landscape Heritage Conservation specialization.

Source: Kenneth J. Tua, 2020

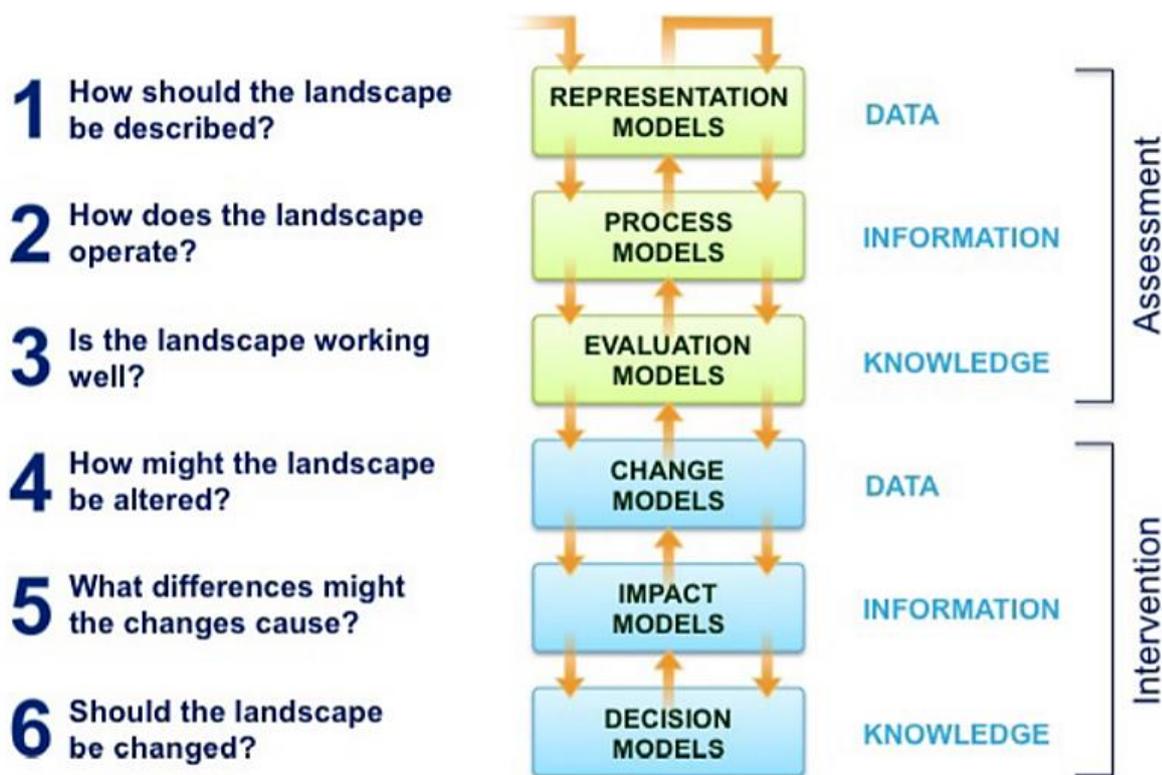


Figure 4: The ‘Geodesign’ Framework

Source: Carl Steinitz, 2012

<https://www.esri.com/library/whitepapers/pdfs/introducing-geodesign.pdf>

The framework of ‘Geodesign’ is outlined into six (6) models and three (3) iterations with the interaction between the multiple-disciplinary design group and the stakeholders: the *representation models* to describe the study area and the history and context; the *process models* to study how currently the system in the study area is operating; the *evaluation models* to test how well the current system operates; the *change model* to provide alternatives for the study area; the *impact model* to assess the possible changes which are provided by the change models; and the *decision model* to select the change for the future by the design teams and stakeholders (Steinitz, 2012) (see Figures 3 & 5). Using these definitions and answering the questions provided for each model types, assigning the thematic areas and course concentrations will be deduced simultaneously (see Figure 5).

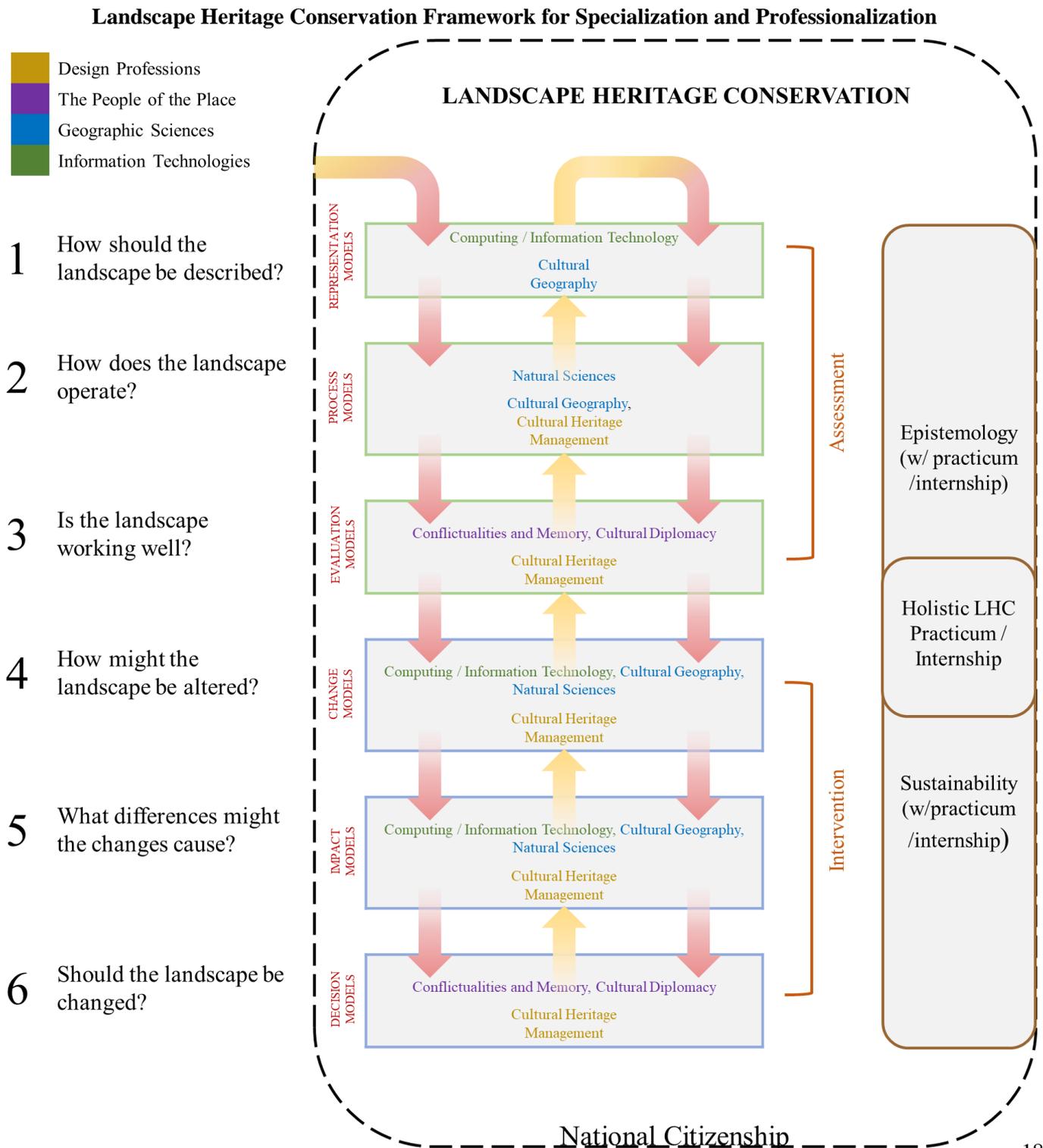


Figure 5: The Landscape Heritage Conservation specialization framework through ‘Geodesign’

All the identified and reviewed nine (9) thematic areas chosen for the LHC specialization are equally important for the Philippine Landscape Heritage Education. To be able to validate the interrelationship and collaborative activity that these thematic areas may offer, the ‘Geodesign’ framework was used to translate and formulate a tailor – fitted developmental process for the LHC specialization and its professionalization. Main thematic areas that represents one of the four main groups are strategically assigned to one or more model types that will play a major role on LHC according to its location on the three (3) part iteration process of ‘Geodesign’ (see Figure 5). The process starts from the representation models going down to the decision models represented by the red arrows as an ‘assessment to intervention’ activities for the 1st iteration, all the thematic areas situated at the upper part of each model type area / box answers and supports the guide questions on the left most part of the LHC framework for the landscapes. For the 2nd iteration, the process goes back from the decision models going up to the representation models represented by the yellow arrows as an ‘intervention to assessment’ activities in testing the activities in the initial iteration. The role of the thematic areas ‘Cultural Heritage Management’ and ‘Cultural Geography’ situated on the lower part of each model type area / box shall be critical in applying the assessments and initial interventions made by the 1st iteration to the 2nd iteration in improving and addressing the problems for the landscapes. The 3rd and final iteration shall be the same with the 1st iteration, culminating with a final process of assessments and interventions for the landscapes. The thematic areas on ‘Epistemology’, ‘Sustainability’, and ‘National Citizenship’ are equally significant in the process as it intersects and occur in the beginning of the process and supports the whole framework as a whole. These are represented by the history of Landscape Architecture as thought in the curriculum and past and current case studies related to the Philippine Landscape Heritage and Landscape Heritage in general. As compared to the original framework of ‘Geodesign’ (see Figure 4) that proposes only three (3) iteration, the LHC specialization framework through ‘Geodesign’ proposes the iteration to be limitless and updating of assigned thematic areas for each model type may change depending on the current scenario of LHC at a certain period of time (see Figures 5 & 6). In this study, the LHC specialization framework proposed in this study shall be used for the study and professionalization of LHC in the Philippines.

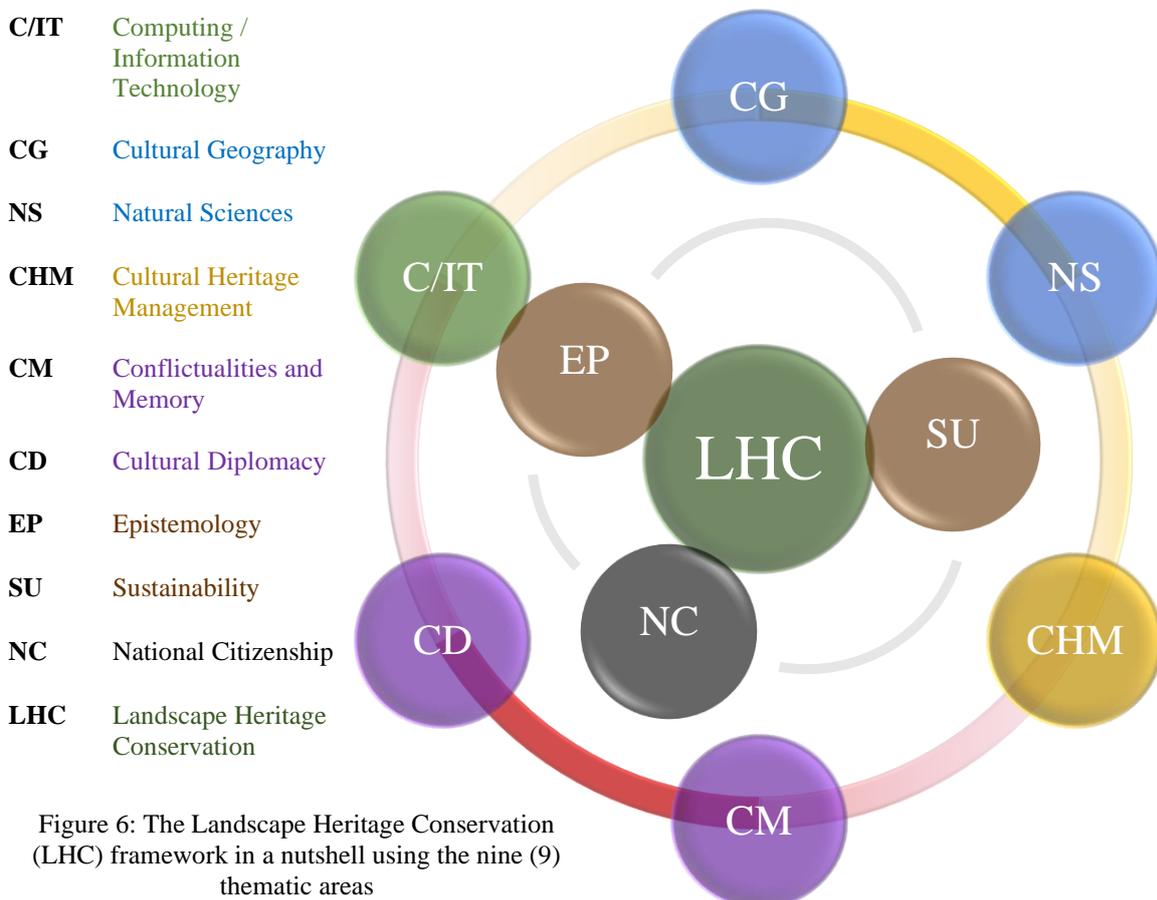


Figure 6: The Landscape Heritage Conservation (LHC) framework in a nutshell using the nine (9) thematic areas

In these Table 3 and Table 4, selected courses from the four (4) Universities were clustered in a specific thematic area of subject showing the course concentrations it upholds. Remarks were stated as: **I** – for *Integration*, denotes that the available course only needs to integrate the course concentrations, **B** – for *Basis of course creation*, denotes that the course is not specifically related to the course concentrations/thematic areas but can be considered basis, and **N** – for *Not Applicable*, denotes that there are currently no identified course concentrations available for integration.

Thematic Areas	Computing / Information Technology	Conflictualities and Memory	Cultural Diplomacy	Cultural Geography	Natural Sciences	National Citizenship	Cultural Heritage Management	Epistemology (w/ practicum/ internship)	Sustainability (w/ practicum/ internship)
Course Concentrations	Remote Sensing, Digital Survey, Architectural Genetics, Virtual Reality (VR) and BIM – 3D Scanning and 3D reconstructions, and Geographic Information System (GIS)	Geopolitics, Management of Risk and Conflicts, Conflicts of use and armed conflicts, Typology of National and International Crises, and Nationalization of ethnic and religious conflicts	National and International Relations, Cultural and Heritage Policies, Policy and Project management, Policymaking and strategies, and Public Speaking	Interdisciplinary and Interculturality of Philippine Culture, Philippine Geography (Landscape Sites of Churches, Bahay na Bato, Pre-War etc.), Southeast Asian Territories and Landscapes, Cultural Heritage Mapping, and Professional and Collaborative Projects	Traditional Materials and Skills, Hardscape Construction, Local Softscape Material Selection, Indigenous Knowledge, Dynamic Management of Cultural Landscapes, Reconstruction of Cultural Landscapes, and Complex Integrated Landscape Management	Indigenous Languages in the Philippines (Tagalog, Cebuano, Ilocano, Hiligaynon etc.), Learning on Historical and Contemporary Philippine figures and icons, and basic learning of Philippine Ancient Script: Baybayin	Cultural Heritage Studies, Documentation and Cataloguing, Traditional Landscape Construction Methods, Archaeological Techniques, Site Conservation and Restoration, and Landscape Heritage and Development	History of Philippine Landscapes, Concepts and Theories of Safeguarding Cultural and Natural Landscapes, Cultural Tourism Studies and Novelty/Locality	Sustainable Development, Sustainable Heritage Management, Territorial Development, Research & Development (R&D), Quality Control and Applied Projects (for CMPs), and Environmental Impact Assessments (EIA), Tropical Landscape Architecture
Courses for Intervention at UP – Diliman (BLArch) w/ Supplementary Courses (General Education (GE)) for UP – Diliman	Elementary Surveying (GE11), Landscape Geography and Information Science (LArch138), and <i>Earth Trek (GE1)</i>	<i>Self and Society (SAS1)</i> , <i>Places and Landscapes in a Changing World (Geog1)</i> , and <i>Markets and the State (Econ11)</i>	Practice & Governance III: Finance, Taxation, Civics & Land Reform for Architects (Arch159), and <i>Public Speaking and Persuasion (Speech30)</i>	Regional Landscape Technology (LArch147), Ecological Networks and Landscape Planning (LArch149), <i>Designing Eden: Introduction to Philippine Landscape Architecture (LArch1)</i> , and <i>Ang Pilipinas: Arkiyoloji at Kasaysayan (Arkiyoloji1)</i>	Hardscape Construction I (LArch13), Hardscape Construction II (LArch24), Softscape Materials (LArch25), Planting Design (LArch29), and <i>Our Dynamic Earth (Geol1)</i>	Wika, Kultura, at Lipunan (Fil40), The Life & Works of Jose Rizal (PI100), and <i>Ikaw at Wika Mo (Lingg1)</i>	<i>Archaeological Heritage: The Past is not a Foreign Land (Archeo2)</i>	History of Landscape Architecture and Cultural Landscapes (LArch10), Theory of Landscape Architecture Design (LArch19), Practicum (LArch140), <i>Kasaysayan ng Pilipinas (Kas1)</i> , and <i>Ang Asya at ang Daigdig (Kas2)</i>	Landscape Architecture for Urban Regeneration and Climate-Responsive Design (LArch130), Practicum (LArch140), Landscape Ethics and Public Policy for Sustainable Landscape Development (LArch144), Landscape Design Research (LArch199), and <i>Science, Technology and Society (STS1*)</i>
Remarks	I	B	I	I	I	B	B	I	I
Courses for Intervention at University of San Carlos (BLArch)	Elementary Surveying (AD1262) and Geography & Information Science (LA3129)	The Contemporary World (GE-TCW) and General Education Free Electives (GE-FREELEC1) (depends on the course)	Professional Practice & Office Administration (LA3141) and Practice & Governance: Finance, Taxation, Civic & Land Reform for Architects (LA4143),	Readings in Philippine History (GE-RPH) and Regional Landscape Technology (LA4227)	Hardscape Construction 1 (LA1221), Hardscape Construction 2 (LA2122), Softscape Materials (LA2123), Landscape Ecology (LA2161), Planting Design (LA2201), Tropical Landscape Maintenance & Management (LA4228),	Rizal, Life and Works (GE-LWR) and Wika at Retorika Tungo sa Pagsasalin (Filipino1N),	Specialization 1 (ADELEC1) / Elective 1: AC 1 – Conservation Principles, Policies & Liturgical Arts (AD0251), Specialization 2 (ADELEC2) / Elective 2: AC 2 – Conservation Method’s and Materials 1.0 (AD0152A), and	Cultural Landscape & History of Landscape Architecture (LA1131), Theory of Landscape Architecture Design (LA1132), Apprenticeship (LA3342), and History and Theory of Urban Design (AD0152B), and	Science, Technology & Society (GE-STs), Environmental Issues, Pollution & Eng’g (LA3262), Apprenticeship (LA3342), Green Infrastructure & Ecological Masterplanning (LA4102), Landscape Design Research (LA4191), Special Project in Landscape Architecture (LA4292),
Remarks	I	B	B	B	I	B	I	I	I

Courses for Intervention at Bulacan State University (BLArch)	Elementary Surveying (Field Works) (CEA111), Elementary Surveying (Lecture)(CEA112), Computer Aided and Digital Visualization (AC211/212D), Digital Visualization in Architecture (AC221/222D), and Geography and Information Science (GIS301)	Understanding the self (UTS101), and The Contemporary World (TCW101)	Purposive Communication (PCM101), Professional Practice and Office Administration (PP313), and Taxation and Finance (TAX401),	Reading in Philippine History (RPH101), People and Earth's ecosystem (MST101b*), and Regional Landscape Technology (RLT422/421D)	Hardscape Materials I (HCI12/111D), Hardscape Materials II (HC212/211D), Softscape Materials (MAT211/212D), Applied Landscape Ecology (LE213), Planting Design (PD222/221D), Tropical Design: Design with nature (TD323), Tropical Landscape Management (TLM411/412D), and Water Resource and Soil Management (LAElective)	Araling Pilipino (ARP101), Philippine Indigenous Communities (SSP101b*), Life and Works of Rizal (RLW101), and Panitikian at Lipunan (PAL101)	NOT APPLICABLE	Cultural Landscape and History of Landscape Architecture (HLA113), Theory of Landscape Architecture (TLA113), and On the Job Training (OJT),	Environmental Science (MST101a*), Science, Technology and Society (STS101), Research Methods (RM323), On the Job Training (OJT), LA design 7: Landscape Design Research (LA411/413D), Green Infrastructure and Ecological Master planning (GEM401), and LA Design 8: Special projects in Landscape Architecture (LA421/423D),
Remarks	I	B	B	B	I	B	N	B	I
Courses for Intervention at University of San Agustin (BLArch)	Elementary Surveying (ES220A), and, Statistics w/ Software Application (Stat1)	NOT APPLICABLE	Philippine Politics and Governance (Psci102), Economics w/ Taxation & Land Reform (Ssci3), and Practice & Governance III: Finance, Taxation Civics & Land Reform for Architects (LAR433), and Professional Practice & Office Admin. (LAR348)	Regional Landscape Technology (LAR442)	Earth Science 1 (Nsci2), Environmental Science 1 (ES1), Landscape Ecology (LAR234), Hardscape Construction I (LAR235), Hardscape Construction II (LAR245), Softscape Materials (LAR246), Planting Design (LAR336), SP 1 – Botany (Elective 1), SP 2 – Horticulture (Elective 2), and SP 3 – Hydrology (Elective 3), and Tropical Landscape Maintenance & Management (LAR446)	Rizal Life, Work and Writings (Ssci7)	NOT APPLICABLE	Theory of Landscape Architecture Design (LAR142), History of Landscape Architecture (LAR233), and Practicum / OJT (LAR339)	Science, Environment and Society (NS1A), Architectural Research: Basic Research Methods in Architecture (LAR343), Practicum / OJT (LAR339), Landscape Design Research (LAR431), and Special Projects in Landscape Architecture (LAR441),
Remarks	B	N	B	B	I	B	N	B	I

Table 3: Selected courses from the Landscape Architecture curricula at the Bachelor's Degree level of the four (4) Universities (UP – Diliman, USC, BulSU, and USA) for potential LHC Specialization curriculum integration with respect to the proposed Thematic Areas and Course Concentrations.

Source: Kenneth J. Tua (2020), University of the Philippines – Diliman (2018), University of Sa Carlos (2018), Bulacan State University (2017), and University of San Agustin (2014)

Notes: *Supplementary Courses (General Education (GE)) for UP – Diliman (Retrieved 2020)*. On National Citizenship thematic area, depending on the aimed territory outside the Philippines; recommended Language courses are the following but not limited to: Asian Languages (Thai, Indonesian, Vietnamese or Chinese) and European Languages (French, Italian, Portuguese, or Spanish). For the Course Information of the University of the Philippines – Diliman (see Table 21).

Thematic Areas	Computing / Information Technology	Conflictualities and Memory	Cultural Diplomacy	Cultural Geography	Natural Sciences	National Citizenship	Cultural Heritage Management	Epistemology (w/ practicum/ internship)	Sustainability (w/ practicum/ internship)
Course Concentrations	Remote Sensing, Digital Survey, Architectural Genetics, Virtual Reality (VR) and BIM – 3D Scanning and 3D reconstructions, and Geographic Information System (GIS)	Geopolitics, Management of Risk and Conflicts, Conflicts of use and armed conflicts, Typology of National and International Crises, and Nationalization of ethnic and religious conflicts	National and International Relations, Cultural and Heritage Policies, Policy and Project management, Policymaking and strategies, and Public Speaking	Interdisciplinary and Interculturality of Philippine Culture, Philippine Geography (Landscape Sites of Churches, Bahay na Bato, Pre-War etc.), Southeast Asian Territories and Landscapes, Cultural Heritage Mapping, and Professional and Collaborative Projects	Traditional Materials and Skills, Hardscape Construction, Local Softscape Material Selection, Indigenous Knowledge, Dynamic Management of Cultural Landscapes, Reconstruction of Cultural Landscapes, and Complex Integrated Landscape Management	Indigenous Languages in the Philippines (Tagalog, Cebuano, Ilocano, Hiligaynon etc.), Learning on Historical and Contemporary Philippine figures and icons, and basic learning of Philippine Ancient Script: Baybayin	Cultural Heritage Studies, Documentation and Cataloguing, Traditional Landscape Construction Methods, Archaeological Techniques, Site Conservation and Restoration, and Landscape Heritage and Development	History of Philippine Landscapes, Concepts and Theories of Safeguarding Cultural and Natural Landscapes, Cultural Tourism Studies and Cultural Novelty/Locality	Sustainable Development, Sustainable Heritage Management, Territorial Development, Research & Development (R&D), Quality Control and Applied Projects (for CMPs), and Environmental Impact Assessments (EIA), Tropical Landscape Architecture
Courses for Intervention at UP – Diliman (MTLA – IGP)	NOT APPLICABLE	People and the Landscape (LArch223)	Architectural Heritage Theory and Conservation laws (Archi243), and Advanced Special Topic Sample Topic: Policies and Governance in Architectural Heritage (DBE397)	Seminar (Arch299), and Advanced Special Topic Sample Topic: Advanced Cultural Landscape Study (DBE397)	Native Vegetation in Landscape Design (LArch224), Application of Softscape Materials, Techniques and Technologies (LStud202), and Application of Sustainable Hardscape Materials and Technologies in the Landscape (LStud205)	NOT APPLICABLE	Architectural heritage Studies (Archi241), Conservation Management Planning (CMP) (Archi242), The Science of Built Heritage Conservation (Archi244)	Architecture and Landscape Theories (Archi201), and Historical and Theoretical Foundation of Landscape Studies (LStud201)	Seminar (Arch299), and Advanced Special Topic, Sample Topic: Environmental Assessment and Simulation Tools or Tropical Architecture (DBE397)
Remarks	N	B	I	B	I	N	B	I	I

Table 4: Selected courses from the Landscape Architecture curricula at the Master’s Degree level of the University of the Philippines – Diliman (UP – Diliman) for potential LHC Specialization curriculum integration with respect to the proposed Thematic Areas and Course Concentrations.

Source: Kenneth J. Tua (2020), University of the Philippines – Diliman (2018), and University of Sa Carlos (2018)

Notes: Integrated Graduate Program (IGP) Courses, UP – Diliman (2019). For the Course Information of the University of the Philippines – Diliman (see Table 21)

The following identified and selected courses from the Universities presented in Table 3 and 4 are organized in terms of the chosen thematic areas and course concentrations streamlined in this study. It is important to take note that the study organized these courses based on the course title itself with the exception of the University of the Philippines – Diliman having provided the information of each courses of its Landscape Architecture Curriculum and supplementary courses. There is a possibility of reorganization in terms of the course allocation in each thematic area provided that the specific course information (besides the Landscape Architecture Syllabi) in each university are to be supplemented in the future and the possibility of further cooperation with stakeholders for clarification. For this pilot study, the researcher will go forth with the current available data provided by the universities and the remarks designated in Table 3 and Table 4 shall be translated to allocated numerical values and be subjected to a quantitative assessment using Leopold and Lohani & Thann Assessment Matrix on importance (without considering magnitude), for this study it is the level of preparedness and integration of the selected courses of the four (4) universities. This qualitative assessment shall be further expounded in the discussion of the study.

ANALYSES: SWOT ANALYSIS AND PESTEL ANALYSIS OF THE LANDSCAPE HERITAGE CONSERVATION IN THE PHILIPPINES

In the emergence of the LHC specialization in higher educations, it is important to analyze the current and probable future that the specialization may offer at an organizational level and national level in the Philippines. These possibilities range from educational outcomes to professional outlooks, all contributing to the study and recognition of the cultural landscapes.

There are many strategic analysis models used for analyzing organizations. They include but not limited to PESTEL Analysis, Porter's Five Forces Model, The Boston Matrix (BCG Matrix) and SWOT analysis. Among those models, only PESTEL analysis and SWOT analysis could fit the purpose of strategic analysis in higher education institutions (Hassanien, 2017).

SWOT analysis is the tool that could collect data from external environment analysis and that from organizational knowledge that relates to strategic capabilities, and activity mapping and benchmarking that needs to be interpreted after being integrated together. All these data are needed to identify the specialization's internal strengths and weaknesses, and threats and opportunities of the external environment, and consequentially identifying the specialization's distinctive competencies and key success factors. (Johnson, 2008 and Andres, 1987).

To maximize the capability of the SWOT analysis as a tool, the PESTEL analysis is jointly combined as likewise it studies the macro environment of an organization; the academic institution in identifying how the future trends in the political, economic, socio-demographic / social, technological, environmental, and legal environments might have an effect on the institution. (Dinçer, 2004 and Yüksel, 2012).

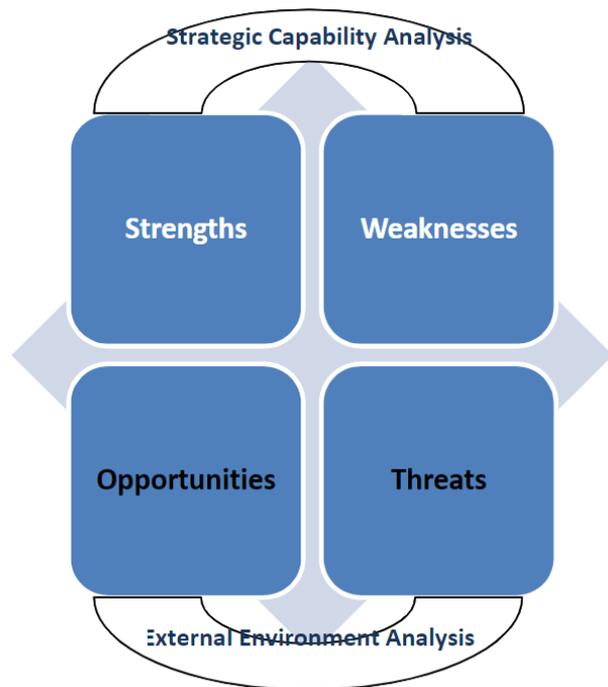


Figure 7: SWOT Analysis

Source: Mohammed Ahmed Hassnien, 2017

<https://journaljesbs.com/index.php/JESBS/article/view/16007/29663>



Figure 8: PESTEL Analysis

Source: Mohammed Ahmed Hassnien, 2017

<https://journaljesbs.com/index.php/JESBS/article/view/16007/29663>

Landscape Heritage Conservation		S	W	O	T
		Strengths	Weaknesses	Opportunities	Threats
P	Political	Exercising the intellectual rights of the stakeholders on geopolitical aspects and soft power of landscapes	Early stages of the curriculum might be subjected to imbalance of thematic areas, creating constraints and difficulty in pedagogy procreation	Probability of creating new laws and guidelines for landscapes with the presence of new/specialized professionals on the field	Negative influence of external entities on the core objectives of the profession may lead to its product: the landscapes to exploitation
E	Economic	High relevance of the specialization for Landscape Architects aiming to also specialize or shift to Heritage Conservation	Untapped resource of professional development and maximization of cultural and natural landscapes study in the Philippines	Expansion of universities networks and fusion of curriculums for integration and mobility	Local development of the profession; Lack of awareness of LGUs to the benefits of the profession especially on areas where it is needed
S	Socio-demographic	Current number of registered and licensed Landscape Architects denotes educational accessibility reach in nationwide implementation (approximately 500 as of 2019)	Number of student graduates due to the scarcity of schools offering the landscape architecture program (as of 2020, 4 schools) and number of qualified staff to provide training	Positive increase of incoming students in the Landscape Architecture course (including current professionals) interested to study or specialized in landscape heritage conservation	Unutilized population of students aiming for the profession yet inaccessible due to limited school offering; limitations of the educational system
T	Technological	Increasing the use of Geographic Information System and other Digital systems for further research & development	Logistics of state-of-the-art technologies used in conservation may be difficult to acquire	New alternatives to the traditional methods of the education system leads to eccentric yet innovative approaches	Misusage of software and hardware for a specific object/site analysis may sometimes lead to misinterpretation
E	Environmental	Clear and concise knowledge on natural and cultural landscapes on currently identified and future sites for transnational recognition	Proactive course of action to recurring threats / non-traditional threats particularly climate change and natural hazards in the local setting	Intensification of economic and tourism growth of landscapes with respect to each of its varying locations and natural diversity	Minimal efforts of imparting the significance of environmental impacts to stakeholders as well as in the profession
L	Legal	Thematic areas can pave critical understanding and specificity of current heritage laws triggering to purposeful amendments	Lack of standards, laws and guidelines may lead to initial international reference and basis; painstaking interpretation to local context	Decentralization of the education system, thus, providing more flexibility to various people studying long distance and online	Possibility of complications with other professions' scope, thus, stakeholders must constitute precise details of the scope & limitations

Table 5: Joint SWOT (Strengths, Weaknesses, Opportunities and Threats) and PESTEL (Political, Economic, Socio-demographic/Social, Technological, Environmental and Legal) Analyses of the probability of Landscape Heritage Conservation specialization and profession in the Philippines

Source: Kenneth J. Tua, 2020

PESTEL Dimensions	Qualitative and Quantitative national indicators of measuring significance in the specialization and professionalization
Political	Balance on the engaged stakeholders encompassing the ff.: <ul style="list-style-type: none"> • Academe (UP – Diliman, USC, BulSU, USA) • Distinguished professionals (PALA) • Government organizations (CHED, NCCA, NHCP etc.) • Non-Governmental, cultural & heritage centered organizations (ICOMOS PH, UNESCO PH etc.)
Economic	<ul style="list-style-type: none"> • Faculty employment rate • Number of professionals specializing • Number of schools involved • Number of LGUs showing initiatives • Specialization’s contribution to GDP/GNI, per capita GDP, and GDP Growth rate • Per capita tourism turnover
Socio-demographic	<ul style="list-style-type: none"> • Number licensed Landscape Architects • Performance (% Passing) in licensure examination • Program accreditation • Tertiary education enrollment • Yearly number of Bachelor and Master of Landscape Architecture Graduates • Level of generalized trust (student survey and the likes)
Technological	<ul style="list-style-type: none"> • Availability of technology for local based landscapes • National competitiveness reports for higher education’s program/curriculum • Number of alternative software and hardware in comparison to foreign counterparts • Frequency of seminars and workshops hold
Environmental	<ul style="list-style-type: none"> • Increase in the induction and nominated World Heritage Sites (WHS) under the Cultural and Natural Landscapes category • Increase of Tangible and Intangible Heritage recognized in the Philippine Registry of Cultural Properties (PRECUP) on a landscape setting • Decrease in the exploitation rate of natural resources from landscapes • United Nations Development Programme: Human Development Reports • United Nations Environmental Programme • United Nations Framework Convention on Climate Change • Climate Change Act of 2009 / Republic Act No. 9729
Legal	<ul style="list-style-type: none"> • Instigation of laws governing landscapes at a national level • National Cultural Heritage Act of 2009 / Republic Act No. 10066 and its Implementing Rules and Regulations (IRR) • Higher Education Act of 1994 / Republic Act No. 7722 • CHED’s Guidelines on the Implementation of Flexible Learning • Philippine and Landscape Architecture Act of 2000 / Republic Act No. 9053

Table 6: Qualitative and Quantitative national indicators of measuring significance for the joint SWOT-PESTEL Analyses.

Source: Kenneth J. Tua, 2020

**DISCUSSION: LANDSCAPE HERITAGE CONSERVATION AS THE
EMERGING SPECIALIZATION IN THE PHILIPPINES**

According to Steinitz (2020), in a larger picture, the world needs 10,000 people to manage ‘Geodesign’ processes and studies, and Landscape Architects are prominently among them. Practitioners of Geodesign will be the leaders in helping resolve the very complex and contentious significant problems of landscapes in the world, in this study, the Landscape Architects shall serve as the core professionals who can tackle issues on Landscape Heritage Conservation (see Tables 5 & 6) as well as innovating the traditional format and structure of studio-based education. Reiterating that landscapes are dynamic, integrative and source of knowledge, managing our landscape heritage in an integrated and holistic approach must draw from local traditions, using innovative solutions to ensure efficient use of resources and environmental sustainability. Furthermore, Landscapes, with its culture and history, is part of our sense of home, so the preservation of its characteristic elements is vital and can assist in ensuring a ‘sense of place’ and ‘social cohesion’. (Bossche, Luengo, & Williams, 2019)

Applying the ‘Geodesign’ in reviewing the preparedness of Landscape Architecture curricula in the Philippines for the specialization of Landscape Heritage Conservation (LHC) gives a clearer angle on which thematic areas can the proposed course concentrations be integrated in the current courses of the respective Universities. It shows the probabilities of course collaboration from Bachelor to Master Degree levels with the advancement from the information technologies towards the future of the Landscape Architecture profession (see Figures 5 & 9). The following tables show the summarized and combined Tables 3 & 4 and the interrelationship of course concentrations and thematic areas on the four (4) main groups (see Tables 7, 8, 9 & 10).

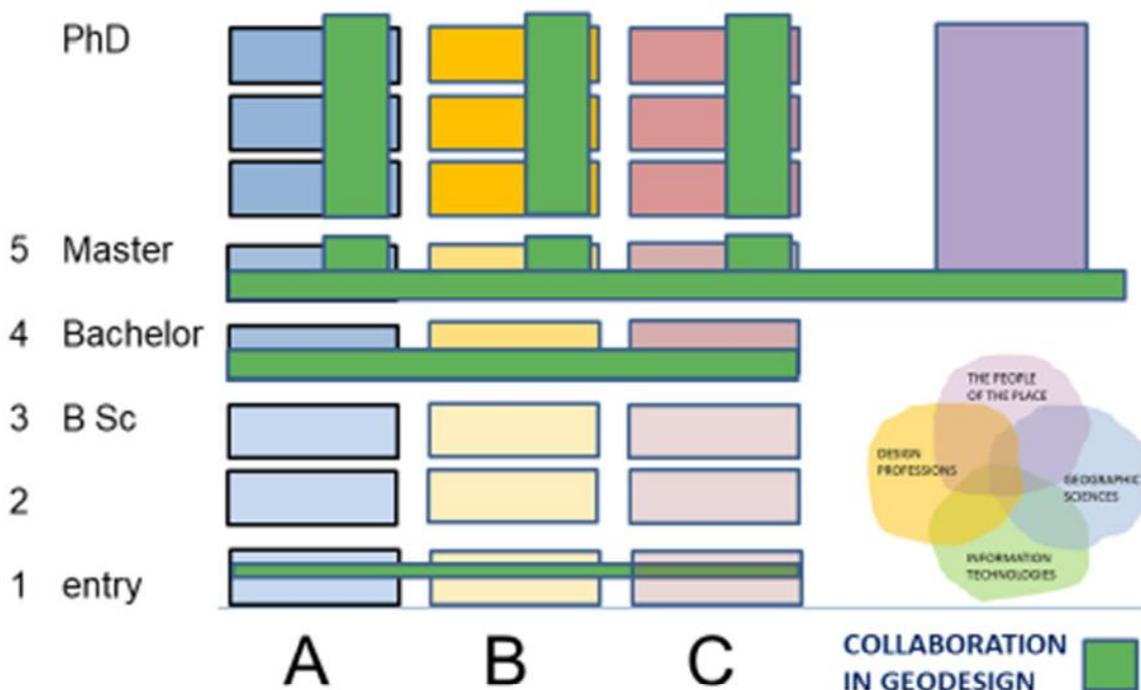


Figure 9: A university with collaboration in ‘Geodesign’.

Source: On Landscape Architecture Education and Professional Practice and Their Future Challenges
by Carl Steinitz, 2020
<https://www.mdpi.com/2073-445X/9/7/228>

'Geodesign' for LHC Specialization at the University of the Philippines – Diliman			
Geographic Sciences	Design Professions	Information Technologies	The People of the Place
<i>Arch299, DBE397, LArch1, Arkiyoloji1, LArch13, LArch24, LArch25, LArch29, LArch224, LStud202, LStud205, Geol1, LArch147, LArch149</i>	<i>Archi241, Archi242, Archi244, Archaeo2</i>	GE11, GE1, LArch138	<i>LArch223, SAS1, Geog1, Econ11, Arch159, Archi243, DBE397, Speech30</i>
(Cultural Geography & Natural Sciences)	(Cultural Heritage Management)	(Computing/ Information Technology)	(Conflictualities and Memory & Cultural Diplomacy)
LArch130, LArch140, LArch144, LArch199, <i>Arch299, DBE397</i> (Practicum/Internship) (Sustainability)			
LArch10, LArch19, LArch140, <i>Archi201, LStud201, Kas1, Kas2</i> (Practicum/Internship) (Epistemology)			
Fil40, PI100, Linggi1 (National Citizenship)			

Table 7: Clustering of selected courses from the University of the Philippines – Diliman with respect to areas of collaboration in 'Geodesign'.

Source: Kenneth J. Tua, 2020

'Geodesign' for LHC Specialization at the University of San Carlos			
Geographic Sciences	Design Professions	Information Technologies	The People of the Place
GE-RPH, LA1221, LA2122, LA2123, LA2161, LA2201, LA4228, LA4227	ADELEC1/AD0251, ADELEC2/AD0152A,	AD1262, LA3129	GE-TCW, GE-FREELEC1, LA3141, LA4143
(Cultural Geography & Natural Sciences)	(Cultural Heritage Management)	(Computing/ Information Technology)	(Conflictualities and Memory & Cultural Diplomacy)
GE-STS, LA3262, LA3342, LA4102, LA4191, LA4292 (Practicum/Internship) (Sustainability)			
LA1131, LA1132, LA3342, AD0152B (Practicum/Internship) (Epistemology)			
GE-LWR, Filipino1N (National Citizenship)			

Table 8: Clustering of selected courses from the University of San Carlos with respect to areas of collaboration in 'Geodesign'.

Source: Kenneth J. Tua, 2020

'Geodesign' for LHC Specialization at the Bulacan State University			
Geographic Sciences	Design Professions	Information Technologies	The People of the Place
RPH101, MST101b*, HC112/111D, HC212/211D, MAT211/212D, LE213, PD222/221D, TD323, TLM411 /412D, LA Elective, RLT422/421D	NOT APPLICABLE	CEA111, CEA112, AC211/212D, AC221/222D, GIS301	UTS101, TCW101, PCM101, PP313, TAX401
(Cultural Geography & Natural Sciences)	(Cultural Heritage Management)	(Computing/ Information Technology)	(Conflictualities and Memory & Cultural Diplomacy)
MST101a*, STS101, RM323, OJT, LA411/413D, GEM401, LA421/423D (Practicum/Internship) (Sustainability)			
HLA113, TLA113, OJT (Practicum/Internship) (Epistemology)			
ARP101, SSP101b*, RLW101, PAL101 (National Citizenship)			

Table 9: Clustering of selected courses from the Bulacan State University (2017) with respect to areas of collaboration in 'Geodesign'.

Source: Kenneth J. Tua, 2020

'Geodesign' for LHC Specialization at the University of San Agustin			
Geographic Sciences	Design Professions	Information Technologies	The People of the Place
Nsci2, LAR234, LAR235, LAR245, LAR246, LAR336, Elective 1, Elective 2, Elective 3, LAR446, LAR442	NOT APPLICABLE	ES220A, Stat1,	Psci102, Ssci3, LAR433, LAR348
(Cultural Geography & Natural Sciences)	(Cultural Heritage Management)	(Computing/ Information Technology)	(Conflictualities and Memory & Cultural Diplomacy)
NS1A, LAR343, LAR339, LAR431, LAR441 (Practicum/Internship) (Sustainability)			
LAR142, LAR233, LAR339 (Practicum/Internship) (Epistemology)			
Ssci7 (National Citizenship)			

Table 10: Clustering of selected courses from the University of San Agustin (2014) with respect to areas of collaboration in 'Geodesign'.

Source: Kenneth J. Tua, 2020

With the possibility of this curriculum integration, students of the Landscape Architecture curriculum who will be following the track of Landscape Heritage Conservation specialization will be able to gain the following ‘knowledge, skills and abilities’ (see Table 11) from the thematic areas and course concentrations identified and to be possibly integrated to the program. Additionally, these are synthesized furthermore by answering the model types from the ‘Geodesign’ framework and from the joint SWOT – PESTEL analyses (see Table 5 and Table 6).

Landscape Heritage Conservation specialization knowledge, skills, and abilities

Model Types	Teaching Units	Thematic Areas	Knowledge, Skills, and Abilities
Representati on, Process, Change, and Impact	Digital and human mediation and remediation	Computing / Information Technology	<ul style="list-style-type: none"> ❖ Use digital assessment and safeguarding tools (GIS, ICT, BIM, and other specific based 3D applications) ❖ Obtain survey and data analysis methods ❖ Produce multi-sectoral qualitative and quantitative data in the disciplinary fields covered by LHC (social, geo-referenced, techno-economic data, etc.) and export them for processing and analysis ❖ Master the impact of Digital Humanities and new social media on heritage and cultural policies and practices ❖ Possess the tools and ethics of social communication of cultural data ❖ Know how to instruct and communicate on a project (tools, method and skills) ❖ Know the informatic sciences of planning, conservation and restoration and rehabilitation ❖ Be able to communicate in the international context through sharing of technologies and expertise
		Cultural Geography	
Evaluation and Decision	Risk and conflict	Conflictualities and Memory	<ul style="list-style-type: none"> ❖ Know the science of different risk cultures in the Philippines among provinces and its correlation transnationally

	analysis and management	Cultural Diplomacy	<ul style="list-style-type: none"> ❖ Possess the essential knowledge to analyze movements of different kinds of tensions and crises ❖ Possess the tools for analyzing new types of conflict ❖ Study the impacts of conflicts on heritage and the role of heritage in conflicts ❖ Familiarization with the concepts and challenges of geopolitics ❖ Understand the political, symbolic and technical dimensions of cultural goods in cultural landscapes ❖ Putting into practice the Integrated Management of Landscapes in territories ❖ From initial professional field to opening up to other disciplines, thus, carrying out multidisciplinary and interdisciplinary research and development programs ❖ Acquire multidisciplinary theoretical and procedural knowledge in order to understand the complexity of multidisciplinary projects ❖ Firm decision-making on the art of negotiation in a local and international environment, taking into account cultural dimensions ❖ Master the fundamentals of cultural diplomacy and international relations
Process, Change, and Impact	Traditional and indigenous knowledge on local practices, materials and methods, and integrated landscape management	Natural Sciences	<ul style="list-style-type: none"> ❖ Be sensitive to ethical issues in relations with local companies/organizations, NGOs, and LGUs ❖ Be able to communicate in the local context ❖ Build a sense of empathy and nationalistic views and beliefs ❖ Patronize traditional and indigenous Filipino knowledge and practices on landscapes ❖ Identify a specific locality's cultural novelty and adapt its understanding and processes ❖ Innovate local materials, practices and methods without cultural heritage alienation
(Serves as studios alternatives, and History and Case Studies as a pedagogical support)	Dynamic tools of project interculturality	National Citizenship Sustainability (w/ practicum/ internship)	<ul style="list-style-type: none"> ❖ Formulate a SWOT and PESTLE diagnosis for wholesome sustainable development project ❖ Know the tools and working methods in interculturality ❖ Gain minimum plurilingual and pluricultural background in a native Philippine language, an Asian language and a European language critical to the focused area of landscapes undertaking

			<ul style="list-style-type: none"> ❖ Develop and transmit a cultural heritage project in a transnational context ❖ Restore and enhance the data and results obtained by adapting to the target audience (study reports, scientific publications, brochures, etc.) ❖ Monitor scientific, technological, technical and regulatory information ❖ Identify the methodologies necessary for studies or scientific projects related to environmental issues, and implement the methods of research, collection and analysis of relevant data and necessary for the conduct of these studies or these scientific projects multi- or interdisciplinary <ul style="list-style-type: none"> ❖ Be able to apply the intercultural work methodology ❖ Ability to set-up a network of specialists capable of meeting the demands of valuing heritage and cultural landscapes ❖ Work within a multi-skilled team ❖ Develop his/her own curriculum vitae and personal potential advances
Process, Change, Impact, Evaluation, and Decision	Heritage Conservation institutional and legal knowledge and techniques	Cultural Heritage Management	<ul style="list-style-type: none"> ❖ Comprehend the legal rules and economic parameters of the field (heritage, culture, conservation, environmental and the likes) ❖ Mastering economic and marketing tools for cultural projects ❖ Understand the functioning of national and international institutions or organizations ❖ Know Philippine, Asian and/or International heritage laws and conventions essential to landscapes ❖ Possess the essential knowledge and concepts in heritage sciences, land use planning and management, the environment and natural and cultural heritage ❖ Know the challenges and tools of tourism development and manage tourism stakeholders creating cultural tourism balance ❖ Expertise to monitor a heritage project and differentiate details with a keen eye ❖ Know how to set up quality control and a network of experts in the field and project's thematic issue ❖ Provide expertise on issues related to interactions between societies / political issues / environment

			<ul style="list-style-type: none"> ❖ Be operational in modeling solutions for territorial development ❖ Analyze and scrutinize cultural and heritage policies in the Philippines, Asia and Europe ❖ Be able to develop projects and respond to calls for tenders for structural funds but not limited to the Philippine setting
(History and Case studies as a pedagogical support)	Epistemological concepts and issues	Epistemology (w/ practicum/ internship)	<ul style="list-style-type: none"> ❖ Know the socio-historical issues and epistemological issues of cultural goods and memory management of landscapes ❖ Identify the intangible dimensions of heritage and landscape ❖ Recognize the constituent elements of the tangible and intangible cultural landscape ❖ Discover specific contexts: Philippine, Asian, African and heritage and from the Atlantic worlds
(Serves as Studios alternatives)	Professional Development	Practicum/ Internship on Sustainability and/or Epistemology	<ul style="list-style-type: none"> ❖ Know how to integrate into a national or international team with different backgrounds and visions ❖ Develop the culture of the project and / or the bases of action research ❖ Appreciate the technical constraints and the risks to implement adapted solutions ❖ Implement autonomy and practice of field work with rural or urban populations, listening skills, sense of contact, respect for others ❖ To be able to synthesize data of varied origin (results of surveys, scientific and popular literature, iconographic and sound data, ecological and geographic data) and to write scientific reports ❖ Design and implement an interdisciplinary diagnosis of a territory ❖ Be able to manage a project from its initialization to its completion

Table 11: Academic Outcome and Professional Outlook of Landscape Heritage Conservation Specialization in the Philippine Setting.

**Quantitative assessment of the preparedness of Landscape Architecture curricula
in the Philippines for the LHC specialization**

To quantitatively measure the preparedness of the four (4) Universities' curricula, the remarks on Table 3 and Table 4 were translated as follows:

Remarks	Description	Scoring
I	for Integration , denotes that the available course only needs to integrate the course concentrations	7 – 10
B	for Basis of course creation , denotes that the course is not specifically related to the course concentrations but its thematic area(s) can be considered basis	4 – 6
N	for Not Applicable , denotes that there are currently no identified available courses for integration or there is identified but its thematic area(s) is not considered for basis	0 – 3

Table 12: Allocated Range of Scoring for each type of Remarks at Table 3 and Table 4.

Source: Kenneth J. Tua, 2020

Universities Thematic Areas	University of the Philippines – Diliman	University of San Carlos	Bulacan State University	University of San Agustin
Computing / Information Technology	I	I	I	I
Conflictualities and Memory	B	B	B	N
Cultural Diplomacy	I	B	B	B
Cultural Geography	I	B	B	B
Natural Sciences	I	I	I	I
National Citizenship	B	B	B	B
Cultural Heritage Management	B	I	N	N
Epistemology	I	I	B	B
Sustainability	I	I	I	I

Table 13: Summary of Remarks from Table 3.

Source: Kenneth J. Tua, 2020

University	University of the Philippines – Diliman
Thematic Areas	
Computing / Information Technology	N
Conflictualities and Memory	B
Cultural Diplomacy	I
Cultural Geography	B
Natural Sciences	I
National Citizenship	N
Cultural Heritage Management	B
Epistemology	I
Sustainability	I

Table 14: Summary of Remarks from Table 4.

Source: Kenneth J. Tua, 2020

Legend	Description	TA Score Range	TU Score Range	Final Raw Score Range
	indicates high level of preparedness and integration	33 – 40	65 – 80	89 – 110
	indicates moderate to high level of preparedness and integration	25 – 32	49 – 64	67 – 88
	indicates moderate level of preparedness and integration	17 – 24	33 – 48	45 – 66
	indicates low to moderate level of preparedness and integration	9 – 16	17 – 32	23 – 44
	indicates low level of preparedness and integration	0 – 8	0 – 16	0 – 22

Table 15: Description and Range of Final Scoring for selected Bachelor’s Degree Courses of the four (4) Universities (UP – Diliman, USC, BulSU, and USA) for the LHC Specialization.

Source: Kenneth J. Tua, 2020

Legend	Description	TA Score Range	TU Score Range	Final Raw Score Range
	indicates high level of preparedness and integration	9 – 10	17 – 20	89 – 110
	indicates moderate to high level of preparedness and integration	7 – 8	13 – 16	67 – 88
	indicates moderate level of preparedness and integration	5 – 6	9 – 12	45 – 66
	indicates low to moderate level of preparedness and integration	3 – 4	5 – 8	23 – 44
	indicates low level of preparedness and integration	0 – 2	0 – 4	0 – 22

Table 16: Description and Range of Final Scoring for selected Master’s Degree Courses of University of the Philippines – Diliman for the LHC Specialization.

Source: Kenneth J. Tua, 2020

Teaching Units (TU) & Thematic Areas (TA)		Universities	UP – Diliman	University of San Carlos	Bulacan State University	University of San Agustin	TU Score	TA Score
Digital and human mediation and remediation	Computing / Information Technology		9	8	10	9	60	36
	Cultural Geography		8	6	6	4		24
Risk and conflict analysis and management	Conflictualities and Memory		6	5	4	0	40	15
	Cultural Diplomacy		7	6	6	6		25
Traditional and indigenous knowledge on local practices, materials and methods, and integrated landscape management	Natural Sciences		10	10	10	10	40	40
Dynamic tools of project interculturality	National Citizenship		6	6	6	5	60	23
	Sustainability		10	10	9	8		37
Heritage Conservation institutional and legal knowledge and techniques	Cultural Heritage Management		5	8	0	0	13	13
Epistemological concepts and issues	Epistemology		10	10	6	6	32	32
Professional Development	Practicum/ Internship on Sustainability		10	10	9	8	69	37
	Practicum/ Internship on Epistemology		10	10	6	6		32
Final Raw Score			91	89	73	62		

Table 17: Quantitative scoring for the preparedness of selected Bachelor’s Degree Courses of the four (4) Universities (UP – Diliman, USC, BuSU, and USA) for the LHC Specialization.

Source: Kenneth J. Tua, 2020

Teaching Units (TU) & Thematic Areas (TA)		University	UP – Diliman	TU Score	TA Score
Digital and human mediation and remediation	Computing / Information Technology		0	6	0
	Cultural Geography		6		6
Risk and conflict analysis and management	Conflictualities and Memory		5	13	5
	Cultural Diplomacy		8		8
Traditional and indigenous knowledge on local practices, materials and methods, and integrated landscape management	Natural Sciences		9	9	9
Dynamic tools of project interculturality	National Citizenship		0	9	0
	Sustainability		9		9
Heritage Conservation institutional and legal knowledge and techniques	Cultural Heritage Management		6	6	6
Epistemological concepts and issues	Epistemology		9	9	9
Professional Development	Practicum/ Internship on Sustainability		9	18	9
	Practicum/ Internship on Epistemology		9		9
Final Raw Score			70		

Table 18: Quantitative scoring for the preparedness of selected Master’s Degree Courses of University of the Philippines – Diliman for the LHC Specialization.
Source: Kenneth J. Tua, 2020

The remarks were translated to allocated numerical figures to quantitatively measure the raw scores of the four (4) Universities with a scope and limitation of not examining the number of course concentrations and/ or subjects on each thematic area and the specific content of each courses, but only considering at least the availability of one (1) identified course/subject in each thematic area with a deciding factor of its relatedness to the proposed thematic areas and identified course concentrations as defined on Table 2, and reviewed by the researcher of the study. This will also show the major advantage and disadvantage of the universities in terms of the identified and reviewed Thematic Areas (TA) and equivalent Teaching Units (TU). The results from this Table 17 and Table 18 will serve as a supplemental deciding factor in arriving to a final conclusion besides the overall peer review.

Selected courses from the curricula of Landscape Architecture programmes in the Philippines were quantitatively measured and scored for the LHC specialization. Among the four (4) Universities in the Philippines at the Bachelor's degree level, it shows that the University of the Philippines – Diliman (UP – Diliman) and University of San Carlos (USC) are the most prepared to integrate the LHC specialization with slight differences on some thematic areas (see Table 17). While Bulacan State University (BuSU) and University of San Agustin (USA) are the least prepared with the lack of courses related to the thematic areas in 'Cultural Heritage Management' for both and 'Conflictualities and Memory' for USA. BuSU and USA scored low due to its lack of related courses under the thematic areas while UP – Diliman and USC scored high as a result of its complete availability of related courses.

Furthermore, analyzing the final scores for the Thematic Areas (TAs) in the Bachelor's degree level, the TA on 'Natural Sciences' scored the highest and distinctively highlights the advantageous field of expertise in the 'natural environment' in the Philippines. In contrast, the TA on 'Cultural Heritage Management' scored the lowest stating that there is a need for more integration on course concentrations revolving on the field of 'cultural heritage'. In the Master's degree level for UP – Diliman, the TAs on 'Natural Sciences', 'Sustainability' and 'Epistemology' including for the 'Internship/Practicum' all scored the highest while the TAs on 'Computing / Information Technology' and 'National Citizenship' both scored the lowest.

In examining the Teaching Units (TUs), penetrating the 'Knowledge, Skills, and Abilities' of the students/professionals who will be specializing for LHC displays that the TU for 'Professional Development' signals positive accessibility in learning while the TU on 'Heritage Conservation institutional and legal knowledge and techniques' for both bachelor and master degree levels raises concern due to the lack of courses and/or course concentration integration in the four (4) Universities. Although there are many internal and external factors that may affect the analyzation of the preparedness of the integration of LHC specialization in the Universities' Landscape Architecture curricula, the research only focused on identifying and reviewing thematic areas and course concentrations for this study.

CONCLUSION AND RECOMMENDATIONS

Diversity of the Landscape Architecture curricula of the four (4) universities have its own unique strengths and sound pedagogical structure. Each offers engaging courses in landscape architecture and these have been carefully reviewed in response to identifying which are suitable for the curriculum integration of Landscape Heritage Conservation (LHC) specialization in the Philippines. The results of the qualitative investigation of the study and the quantitative assessment done to the selected courses bring forth to the conclusion that the Landscape Architecture curricula at the bachelor's degree level of the University of the Philippines – Diliman (UP – Diliman) in Quezon City and University of San Carlos (USC) in Cebu are prepared to integrate and/or consider updating their respective curriculum in accordance to the LHC specialization. The curricula of Bulacan State University (BulSU) in Malolos, Bulacan, and University of San Agustin (USA) in Iloilo may need to consider introducing courses related to the thematic areas (see Table 17) to be able to create an area of basis for integration.

At the graduate level, UP – Diliman who currently only offer the master degree had a moderate to high level of preparedness and integration despite the lack of some courses. Rather viewing the lack of the courses categorized in the thematic areas in each universities' curricula as a disadvantage, this should be taken as an advantage in pedagogy creation initiative focused on the thematic areas and course concentrations (see Table 3 and Table 4) proposed in this study. Moreover, BulSU and USA may also benefit in the formulation and extension of their Landscape Architecture programme to Graduate and/or Post-Graduate degrees with this specialization as the aspiring student's professional track. Likewise, introducing some courses to UP – Diliman at the master degree level to fill – up the gaps as an opportunity.

The preparedness of the UP – Diliman and USC can be inferred due to the availability of its Graduate programmes and supplementary courses of its Bachelors' Degree. Effectiveness of the 'Geodesign' framework used as a tool for reviewing the curricula can be reflected on the areas it created for collaboration and integration in the LHC specialization. Quoting Steinitz (2020), collaboration in 'Geodesign' should be carried out at bachelor's degree, master's degree, and PhD degree levels. Albeit, Steinitz's Geodesign framework needed more elaboration and specific contextualization if it will be used for other specializations/fields, the framework has shed a light for creating a collaborative activity in formulating the LHC specialization.

Significantly, the development of the LHC specialization in the Philippines shall open various opportunities through the study and professionalization of the cultural landscapes in both the natural and built environment. The educational sector in the country now will have the chance in molding

Philippine Landscape Heritage Conservationists trained at the local context. These forthcoming heritage practitioners could help in bringing balance to the World Heritage list because of the low number of cultural landscapes registered and recognised, a scarcity of such ensembles of cultural landscapes, vernacular architecture, technological and agricultural sites, all within the cultural landscape spectrum in Asia in general (Taylor, 2009). This brings in the expansion of the specialization's scope to transnational reach through but not limited to cultural heritage and tourism sectors. Evidently, accentuating Philippines' landscapes that has always been the subject in promoting its tourism in general to visitors and probable international markets. This also calls for the opportunity to maximize the potentials of cultural tourism and development encased in these natural landscapes while at the same time to safeguard these cultural landscapes. In responding to pressures for the future, inherent in its development pressures, economic conditions, and drive for modernization, it is vital not only to protect tourism resources, but also to promote community development that focuses on cultural landscapes. (Srinivas, 2015)

In advancing this research, the following recommendations are proposed: A continuous stakeholders' cooperation with the Philippine Association of Landscape Architects (PALA), Technical Committee for Landscape Architecture, Commission on Higher Education (TCLA CHED), Professional Regulation Commission – Board of Landscape Architecture (PRC – BOLA), and the four (4) universities to further review and make amendments in the study. The study has two (2) possible directions in relation to the currently being proposed specialization by PRC – BOLA and TCLA – CHED on 'Cultural Landscape Heritage Conservation': 1) Possibly integrating the thematic areas and course concentrations in the BLArch level for the LHC specialization to give more accessibility to students who wants to immediately integrate this to his / her study and specialize after graduating on that level, and / or 2) Since the significance of the BLArch level is as a 'foundation course' for Landscape Architects, the LHC specialization can be taken at the master degree level for greater specialization, knowledge and distinction from other professions. The study has identified the current courses in the Landscape Architecture curricula in relation to the thematic areas and course concentrations at the BLArch degree level and these can serve as necessary prerequisites or foundation for the LHC specialization at the Master degree level.

With regards to the practicum/internship, it is recommended either between 'Epistemology' (Academe prospect) and/or 'Sustainability' (Professional prospect), still both are suggested for a holistic LHC specialization. Additionally, the following organizations and its affiliation are suggested for internships: ICOMOS, UNESCO, IUCN, Philippine Government and its departments, NGOs and institutions stated in Table 19 below, and other organizations related to the LHC specialization. Lastly, the institutions for collaboration stated in Table 19 (but not limited to) are suggested for supplemental references in providing more information with respect to the thematic areas and course concentrations proposed in this study for the LHC specialization.

Supplemental References for the LHC specialization

Thematic Areas	Course Concentrations	Institutions for collaboration	Suggested references
Computing / Information Technology	Remote Sensing, Digital Survey, Architectural Genetics, Virtual Reality (VR) and BIM – 3D Scanning and	University of the Philippines – Diliman	BS Geodetic Engineering and MS Remote Sensing
		Digiscript (Local)	3D Scanning
	3D reconstructions, and Geographic Information System (GIS)	iconem (International)	3D reconstruction
		United Nations Institute for Training and Research (UNITAR)(International)	UNITAR Operational Satellite Applications Programme (UNOSAT)
Conflictualities and Memory	Geopolitics, Management of Risk and Conflicts, Conflicts of use and armed conflicts, Typology of National and International Crises, and Nationalization of ethnic and religious conflicts	University of the Philippines – Diliman Center for Integrative and Development Studies (CIDS)	Strategic Studies Program, Program on Social and Political Change, and Decolonial Studies Program
		Philippine Society for Intelligence and Security Studies (PSISS)	Intelligence and Security Studies
Cultural Diplomacy	National and International Relations, Cultural and Heritage Policies, Policy and Project management, Policymaking and strategies, and Public Speaking	Republic of the Philippines Foreign Service Institute (FSI)	Certificate Course on International Relations and Diplomacy (Public & Cultural) <i>Reference: Philippine Cultural Diplomacy: Unraveling its full potential by Andrea Chloe A. Wong</i>
		De La Salle – College of Saint Benilde	AB in Diplomacy and International Affairs

		Ateneo de Manila University	AB Diplomacy and International Relations with Specialization in East and Southeast Asian Studies
Cultural Geography	Interdisciplinary and Interculturality of Philippine Culture, Philippine Geography (Landscape Sites of Churches, Bahay na Bato, Pre-War etc.), Southeast Asian Territories and Landscapes, Cultural Heritage Mapping, and Professional and Collaborative Projects	National Commission for Culture and the Arts (NCCA)	Cultural Mapping Program
		Philippine Cultural Education Program (PCEP)	CulEd 204 – Re-view of Philippine History and Heritage Culed 211 Culture and Governance Culed 206 Local Cultural Mapping (c/o NCCA)
		University of San Carlos (USC)	Architectural Conservation 1 (AC1)
Natural Sciences	Traditional Materials and Skills, Hardscape Construction, Local Softscape Material Selection, Indigenous Knowledge, Dynamic Management of Cultural Landscapes, Reconstruction of Cultural Landscapes, and Complex Integrated Landscape Management	Escuela Taller de Filipinas Foundation, Inc. (ETFFI)	Traditional Carpentry & Woodworking for Tangible Heritage Conservation Traditional Masonry for Tangible Heritage Conservation Decorative and Historical Painting Finishing for Tangible Heritage Conservation
		De La Salle – College of Saint Benilde School of Design and Arts	BS Interior Design Heritage of Philippine Interiors, Preservation & Conservation (INDPIPC) Principles of Preservation, Restoration & Conservation

			(PRECON I, PRECON II, & PRECON III)
National Citizenship	Indigenous Languages in the Philippines (Tagalog, Cebuano, Ilocano, Hiligaynon etc.), and basic learning of Philippine Ancient Script: Baybayin	University of the Philippines – Diliman	Extramural Classes – Department of Languages
		Baybayin Buhayin, Inc.	Philippine Ancient Script: Baybayin
Cultural Heritage Management	Cultural Heritage Studies, Documentation and Cataloguing, Traditional Landscape Construction Methods, Archaeological Techniques, Site Conservation and Restoration, and Landscape Heritage and Development	University of Santo Tomas (UST) – Graduate School	Master of Arts in Cultural Heritage Studies (MACHS)
		UST – Center for Conservation of Cultural Property and Environment in the Tropics (CCCPET)	Conservation and Restoration Documentation and Cataloguing Exhibition and Museum Design Cultural Heritage Mapping Conservation Management Plan Philippine Church History Heritage and Development
Epistemology	History of Philippine Landscapes, Concepts and Theories of Safeguarding Cultural and Natural Landscapes, Cultural Tourism Studies and Cultural Novelty/Locality	University of the Philippines – Diliman	Master of Tropical Landscape Architecture (MTLA)
		Ateneo de Manila University: Sociology and Anthropology Department Bachelor of Arts, Major in the Social Sciences	SA 104 – Qualitative Methods in the Social Sciences SA 119 – Introduction to Cultural Anthropology SA 157 – Introduction to Cultural Heritage

		Minor in Cultural Heritage	SA 199.1 – Sp. Topics in the Social Sciences: Culture and the Senses
Sustainability	Sustainable Development, Sustainable Heritage Management, Territorial Development, Research & Development (R&D), Quality Control and Applied Projects (for CMPs), and Environmental Impact Assessments (EIA), Tropical Landscape Architecture	University of the Philippines – Diliman	Bachelor of Science in Landscape Architecture (BLArch), Master of Tropical Landscape Architecture (MTLA)
		University of the Northern Philippines Bachelor of Science in Architecture Architectural Conservation (SPL142)	Conservation of the Built Heritage, Environmental Planning and Sustainable Management of Cultural Heritage Sites, and Disaster Risk Management of Cultural Heritage Sites

Table 19: Supplemental references of the thematic areas and course concentrations for the LHC Specialization in the Philippines.

Source: Kenneth J. Tua, 2020

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APPENDIX

World Heritage Site (WHS) – Cultural Landscapes in the Southeast Asia Region



Cultural Landscape of Bali Province: the Subak System as a Manifestation of the Tri Hita Karana Philosophy in Indonesia
Source: Ko Hon Chiu Vincent
<https://whc.unesco.org/en/documents/147206>



Vat Phou and Associated Ancient Settlements within the Champasak Cultural Landscape in Laos
Source: Ko Hon Chiu Vincent
<https://whc.unesco.org/en/documents/136801>



Rice Terraces of the Philippine Cordilleras in the Philippines
Source: Patrick Venenoso
<https://whc.unesco.org/en/documents/129330>



Singapore Botanic Gardens
Source: NParks Official Photographer
<https://whc.unesco.org/en/documents/136224>



Trang An Landscape Complex in Viet Nam
Source: Xuan Lam
<https://whc.unesco.org/en/documents/129643>

UNESCO Chair Programmes related to Landscape Heritage Conservation (LHC)

Location	UNESCO Chair	Thematic Areas
Europe	UNESCO Chair in World Cultural and Urban Landscapes, Aachen (2012-2016)	Planning & Management, Heritage Impact Assessments, and World Heritage Nominations
	UNESCO Chair on Landscape, Cultural Heritage, and Territorial Governance, the Research Centre of Competence of the Campania Region for Cultural Heritage, Ecology and Economy (BENECON) Caserta	Environmental Design, Remote Sensing, Survey, Urban Planning, and Archeology
	UNESCO Chair on Mediterranean Cultural Landscapes and Communities of Knowledge, University of Basilicata, Potenza	Mediterranean Landscapes, Sustainability, and Global Citizenship
	UNESCO Chair Humanities and Cultural Intergrated Landscape Management, Instituto Politecnico de Tomar	Computing / Information Technology, Museology, Earth Sciences, and Cultural Geography
	UNESCO Chair on Cultural Landscapes and Heritage, University of Basque Country. UPV/EHU	Heritage Management, Rural and Urban Planning, and Conservation and Awareness
Asia	UNESCO Chair on Nature-Culture Linkages in Heritage Conservation, University of Tsukuba	Cultural – Natural Heritage, Nature Conservation and Biodiversity, Heritage Conservation, and Natural Landscapes
	UNESCO Chair on Capacity-Building for the Preservation and Restoration of the Asia-Pacific Cultural Heritage, The Korean National University of Cultural Heritage	Cultural Heritage, Preservation and Restoration, and Capacity Building

Table 20: UNESCO Chair Programmes and its identified thematic areas as bases for LHC.

Source: UNITWIN/UNESCO Chairs Programme (Retrieved 2020)

Information of the Selected Courses from the University of the Philippines – Diliman

Course Code	Course Title	Course Information
Arch 159	Practice & Governance III: Finance, Taxation, Civics & Land Reform	Financial analysis, accounting, taxation & land reform as related to the business of architecture; special studies in population education & the new constitution. Prereq: Arch 57 or equivalent.
Archaeo 2	Archaeological Heritage: The Past is not a Foreign Land	A survey of archaeological research and its role in the development of knowledge about the collective human past, and its contribution to heritage in the contemporary world.
Archi 201	Architecture and Landscape Architecture Theories	Principles governing the conceptualization and production of indoor and outdoor spaces. Design philosophies, processes and strategies, and basic design criteria engaged through discussions and readings.
Archi 241	Architectural Heritage Studies	Introduction to the history, philosophy, theories, standards, and practices of conservation of built heritage.
Archi 242	Conservation Management Planning	Preparation of Conservation Management Plans (CMP)
Archi 243	Architectural Heritage Theory and Conservation Laws	Local and international theory and laws that affect Architectural Conservation practice.
Archi 244	Local and international theory and laws that affect Architectural Conservation practice.	Material pathology and the construction technology of Philippine historic buildings as an applied building science.
Archi 299	Seminar	Studies that inform the production of architecture and the development of critical interpretations of site, program, service, and research.
Arkiyoloji 1	Ang Pilipinas: Arkiyoloji at Kasaysayan	Ang kasaysayan ng Pilipinas nakasentro sa kaalaman mula sa arkiyoloji, at ugnayan ng sinaunang kasaysayan ng rehiyon sa kasaysayan ng Pilipinas.
DBE 397	Advanced Special Topic Sample Topics:	
	Advanced Cultural Landscape Study	The role of culture in shaping the landscape and the dialectic relationship of the landscape in shaping culture and identity.
	Policies and Governance in Architectural Heritage	Architectural heritage conservation laws and charters as interpreted and accepted into Philippine practice
	Environmental Assessment and Simulation Tools or Tropical Architecture	Introduction and familiarization of physical equipment, as well as simulation and testing tools, both analog and digital for gathering climatic data in tropical settings with respect to the performance of buildings
Econ 11	Markets and the State	Essential economic concepts and their use in analyzing real-world issues.
Fil 40	Wika, Kultura, at Lipunan	Ang relasyon ng Filipino sa kultura at lipunang Pilipino.

GE	(Elective)	<i>Title as description</i>
GE 1	Earth Trek	A guided exploration into the tools and techniques of earth observation and measurement.
GE 11	Elementary Surveying	<i>Title as description</i>
Geog 1	Places and Landscapes in a Changing World	A guided exploration into the tools and techniques of earth observation and measurement.
Geol 1	Our Dynamic Earth	Overview of the diversity of interconnections of peoples and places in a globalizing world as mediated by cultures, politics and historical development.
Kas 1	Kasaysayan ng Pilipinas	Ang pampulitika, pang-ekonomiya, panlipunan, at pangkalinangang pagsulong ng Pilipinas.
Kas 2	Ang Asya at ang Daigdig	Ang pamanang pangkalinangan ng Asya sa pagkakaugnay at ang kaugnayan nito sa kabihasnang pandaigdig.
L Arch 1	Designing Eden: Introduction to Philippine Landscape Architecture	Walking-through Philippine landscape architecture through sciences and arts.
L Arch 10	History of Landscape Architecture and Cultural Landscapes	The historical development and relationship of Landscape Architecture to society, climate, topography, identity, and space.
L Arch 13	Hardscape Construction I	Hardscape materials, planned, specified and applications in basic landscape construction.
L Arch 19	Theory of Landscape Architecture Design	Design theories that emphasize relevance of Landscape Architecture to the natural & built environment; evaluation & analysis of the different theoretical components applicable to landscape architecture.
L Arch 24	Hardscape Construction II	Construction methodology and principles of structural design for landscape structures; detailing and working drawings; detailed cost estimate. Prereq: L Arch 13.
L Arch 25	Softscape Materials	Plant materials, planned & specified, in landscape design.
L Arch 29	Planting Design	A study on the aesthetics, fundamental, economic and environmental applications of plants and their documentary representations for design.
L Arch 130	Landscape Architecture for Urban Regeneration and Climate-Responsive Design	Analysis and interpretation of urban landscape form and spaces, the impact of the urban microclimate, its translation and enhancement for better communities through landscape design.
L Arch 138	Landscape Geography and Information Science	Geographic Information Systems for modeling environmental features in landscape architectural analysis.
L Arch 140	Practicum / Internship	Prereq: L Arch 139. (32 h/wk internship for 6 weeks during the Summer Semester)
L Arch 144	Landscape Ethics and Public Policy for Sustainable Landscape Development.	Inclusive and community-based approach in discussing and critiquing relevant policies for landscape design and sustainable countrysides. Prereq: L Arch 132.
L Arch 147	Regional Landscape Technology	Ecological parameters of the regional environment, their impact on human settlements development. Prereq: 4th yr. standing.

L Arch 149	Ecological Networks and Landscape Planning	Developing connected and linked green spaces that integrate natural patterns and ecological processes. Prereq: L Arch 20. 3h. (lec) 3u.
L Arch 199	Landscape Research Design	Seminar and workshop set-up to develop pre-design analysis and evaluation and research for complex landscape systems. Prereq: L Arch 132, Arch 75, Stat 101.
L Arch 223	People and the Landscape	Understanding human patterns and processes that shape landscape design.
L Arch 224	Native Vegetation in Landscape Design	Processes and characteristics of native vegetation and their applications to landscape design and management.
L Stud 201	Historical and Theoretical Foundation of Landscape Studies	Evolution of landscape architectural practice; different theories and principles applied to make the landscape development projects more acceptable and sustainable to satisfy human physical, psychological and aesthetic needs; different social, cultural, and environmental influences.
L Stud 202	Application of Softscape Materials, Techniques and Technologies	Different characteristics, habitats, and cultural importance of softscape explored for the use of landscape projects; different plant species, techniques, technologies, and how these can be best applied for landscape development.
L Stud 205	Application of Sustainable Hardscape Materials and Technologies in the Landscape	Different hardscape materials and construction technologies for sound application in landscape development; proper construction methodology and principles of structural design of landscape structures, including preparations of working drawings and detailed cost estimates.
Lingg 1	Ikaw at Wika Mo	Mga pangunahing konsepto tungo sa pag-unawa, paggamit, at pagpapahalaga sa wika bilang produkto ng talino ng tao sa kanyang pang-araw-araw na pakikipag-ugnayan, at higit sa lahat, sa konteksto ng sitwasyong pangwika sa Pilipinas
PI 100	The Life & Works of Jose Rizal	<i>Title as description</i>
SAS 1	Self and Society	Understanding the self by examining the interaction of biological, psychological and socio-cultural dimensions and appreciating human agency and the emergence of the self in different social contexts.
Speech 30	Public Speaking and Persuasion	Persuasion in various public speaking situations.
STS 1*	Science, Technology and Society	Analyses of the past, present and future of science and technology in society (including their nature, scope, role and function) and the social, cultural, political, economic and environmental factors affecting the development of science and technology, with emphasis on the Philippine setting.

Table 21: Course Code, Course Title, and Course Information for Selected Potential Courses in the University of the Philippines – Diliman for Landscape Heritage Conservation Specialization.

Source: University of the Philippines – Diliman (Retrieved 2020)

Note: Due to limited sources provided by the institutions, only the course information from the University of the Philippines – Diliman was retrieved.

Comments and Feedbacks from Stakeholders

University of San Carlos (USC)

Date received: October 4, 2020 (Sunday) via zoom video meeting and email

From: LAr. Anne G. Nacorda, MArch (Landscape Architecture Program Coordinator, Department of Architecture)

- It is well – presented on comparing the preparedness of each school's curriculum.
- Surprising that USC scored high on the LHC (Landscape Heritage Conservation) specialization.
- The most enlightening is the method used in assessing the areas, adapting the ‘Geodesign’ framework of Steinitz, the framework was clearly explained and a grueling task to undertake.
- The study would be a good source of information for CHED to base on for adapting a new program or a specialization under Landscape Architecture in Heritage Conservation.
- And maybe, be able to come up with courses that fit the LHC specialization.

From: Ar. Carmencita M. Solis, MS (Full Instructor, Department of Architecture)

- The thematic areas provided a comprehensive scope of criteria for identification and assessment of current curriculum. This comprehensiveness may also be misunderstood as complexities as this paper go for review in the upper LArch boards and committees.
- Appreciated the methodology applied and the approaches used for analysis as it gave a smooth transition from process to analysis, to synthesis and conclusion. I can follow the basis of conclusion which makes it clear as to the status of our current curriculum.
- It also highlighted the areas where integration is recommended which can already be integrated into the current content of the courses independently by the university regardless of PALA and BOLA recommendations.
- The results of the study gave me a clear idea on the direction of our course in LArch can take to strengthen its marketability and appeal to potential students. It widened my perspective as to the areas LArch professionals can venture into.
- It is clear for the study as an objective process with the intent of recognizing the potentials of our courses in its contribution to landscape heritage conservation.
- Commended this research for initiating the study as it paved the way for new directions in our current approaches in heritage conservation in the country through educational measures. This is a necessary first step that could lead to a painstaking process worth fighting for.

From: Ar. Vangie Cheryl C. Ulila, MS (Administrator, CHERISH, University of San Carlos)

- Commended the well-structured methodology and comprehensive study.
- Provide a case study at the beginning to show how other universities successfully integrated heritage conservation into their program for reference.
- It is a significant feasibility study to speed up the integration of heritage conservation in the landscape profession. I believe we will be able to avoid sightline problems like that of the Luneta Park photobombing if we also have landscape architects defending the visual integrity of historic and cultural sites.

From: Ar. Neil Andrew U. Menjares, MS (Chair, Department of Architecture)

- The framework you created not only gave basis for establishing the LHC, but for landscape architecture programs in general.
- Looking forward to the final version of this study.

Comments and Feedbacks from Stakeholders

University of the Philippines – Diliman (UP – Diliman)

Philippine Association of Landscape Architects (PALA)

Technical Committee for Landscape Architecture, Commission on Higher Education (TCLA CHED)

Professional Regulation Commission – Board of Landscape Architecture (PRC – BOLA)

Date received: October 7, 2020 (Wednesday) via zoom video meeting and email

From: LAr. Paulo G. Alcazaren (Chairman, PRC – BOLA)

LAr. Cecilia Herras – Tence, MTLA (Member, PRC – BOLA)

LAr. Zenaida C. Galingan (Chairman, TCLA CHED and Programme Director, MTLA/GDipLS)

LAr. Nappy Navarra (President, PALA and Programme Director, IGP)

LAr. Jose Dan Villa Juan (Programme Director, BLArch UP Diliman)

- The University of San Agustin (USA) curriculum is only four (4) years at the bachelor's degree level.
- The University of San Carlos (USC) is not accredited for their master's degree level.
- As discussed, the main purpose of the BLArch programme is being a 'foundation course' for Landscape Architects.
 - In the recommendation, two (2) directions can be proposed for the study:
 1. The idea of possibly integrating the thematic areas and course concentrations in the BLArch level for LHC specialization and / or;
 2. LHC specialization can be taken at master degree level since it has the necessary prerequisites or foundation in the BLArch degree level as identified by the study.
- Recommendation to further check other possible courses that can be chosen by students at the MTLA of UP – Diliman since it has the flexibility of choosing courses related to the track that they want to pursue. This shall give way to identifying courses related / exactly what is proposed by the thematic areas and course concentrations in this study.
- After receiving the Landscape Architecture Major Course Syllabi (July 18, 2020 version) on October 10, 2020 via email, the researcher cross – checked the courses related to the LHC specialization and have reflected some corrections to the table in the study.
- This research is for 'baseline data' on Landscape Heritage Conservation (LHC) with a focus on Cultural and Natural Landscapes. If there would be a possibility in looking at thematic areas and course concentrations for the currently being proposed specialization by PRC – BOLA and TCLA – CHED, 'Cultural Landscape Heritage Conservation', this study can be of aid in such proposal in the future.
- UP – Diliman is pleased on the study's outcome on the university's level of preparedness.
- PRC – BOLA, PALA, and TCLA – CHED acknowledges and welcomes the study with regards to the possibility of a specialization for Landscape Heritage Conservation (LHC).