DESIGNING FOR CLIMATE CHANGE IN VIETNAM

Course ID: TBA

January 3 - 30, 2021

Academic Credits: 8 Semester Credit Units (Equivalent to 12 Quarter Units)

School of Record: Connecticut College

FIELD SCHOOL DIRECTORS:

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INTRODUCTION

Contemporary urban development demands not only innovative thinking, but also highly skilled professionals. As the world continues to urbanize, the stress on natural resources rises exponentially; climate change is exacerbating a pending ecological crisis. Spatial, social and environmental injustices prevail. There is the urgent necessity to significantly overhaul the modes, morphologies and typologies of settling on the planet. Context-embedded urban design and its interplay with visionary environmental planning is necessary to address the precarious stage of development humanity, and more importantly the world, now finds itself.

The Vietnamese field school in urban design and environmental planning are grounded in the belief in both state-of-the-art design thinking and practices (including innovation from the disciplines of engineering, transportation, and ecology) and local intelligence of places as expressed in specific appropriation of techniques and relation to socio-cultural practices. The rapid development of the country goes hand in hand with a simultaneous destruction of its countryside, which clearly needs critical questioning. The ultimate goal is to formulate alternative development scenarios (from the

territorial to typology scales) that are grounded in a critical reading of landscape as structure. In practical terms, this goal will be realized by an iteratively, developed "Atlas of Settlements and Environments of Thua Thien Hue Province in Times of Climate Change."

Intensive fieldwork, interpretative mapping and critical analysis of development dynamics feed an intensive interdisciplinary design charrette with inputs from a wide variety of stakeholders and expertise from different fields. The field school, as a learning by doing laboratory, builds capacity in urban design and environmental planning for the broad field of challenges that contemporary landscapes and urbanism are facing. The Vietnamese Institute of Urban Planning (based in Hanoi and under the Ministry of Construction) will be a primary partner, together with University of Architecture Ho Chi Minh (UAH), Hue University of Forestry, and Thua Thien Department of Construction, in order to ground the investigations in on-going projects and discussions with various relevant stakeholders.

Thua Thien Hue Province is in Vietnam's North Central Coastal region which hosts a wide variety of ecologies in extremely close proximity to one another. The majestic geography of the province stretches from the Truong Son Mountains bordering Laos in the west (with a large number of national parks and reserves, including the well-known Back Ma National Park), to the broad Perfume River plain and its tributaries culminating in the Tam Gian Cau Hai Lagoon (the largest lagoon system in Southeast Asia) and finally the East Sea. It hosts the UNECSO listed Hue Imperial City (including its citadel, rebuilt in-line with the Nara Document on Authenticity following the American-Vietnamese War) and a number of royal mausoleums nestled in the landscape. The province as well hosts an astonishing tomb landscape for ancestor worship, particularly in the dunes—where these cities for the dead are counterfigures for the ever-growing urbanization that is rapidly transforming human and natural ecologies. The quality, uniqueness and vastness of the cultural (imperial as well as vernacular) and (sequence of) natural landscapes of the province require an intelligent, context specific, tailoring of innovative development concepts far away from conventional urban planning wisdom. The premise of the field school is that a broadened notion of National Park might provide a significant starting point to reconsider the territory's dynamics. The field school will iterate between intensive fieldwork (with Vietnamese colleagues) and interdisciplinary design charrettes.

ACADEMIC CREDIT UNITS & TRANSCRIPTS

Credit Units: Attending students will be awarded 8 semester credit units (equivalent to 12 quarter credit units) through our academic partner, Connecticut College. Connecticut College is a private, highly ranked liberal arts institution with a deep commitment to undergraduate education. Students will receive a letter grade for attending this field school (see grading assessment and matrix). This field school provides a minimum of 160 direct instructional hours. Students are encouraged to discuss the transferability of credit units with faculty and registrars at their home institution prior to attending this field school.

Transcripts: An official copy of transcripts will be mailed to the permanent address listed by students on their online application. One more transcript may be sent to the student home institution at no cost. Additional transcripts may be ordered at any time through the National Student Clearinghouse: http://bit.ly/2hvurkl.

PREREQUISITES

This field school is primarily intended for students in architecture, landscape architecture, urbanism, urban design and urban planning. Those from environmental planning and other relevant fields are as well welcomed, but it must be understood that sketching and photography will be essential components

of the fieldwork and that the week of developing design proposals necessitates a design background or at least an interest in and basic skills of design.

DISCLAIMER – PLEASE READ CAREFULLY

Our primary concern is with education. Traveling and conducting field research involves risk. Students interested in participating in any IFR program must weigh whether the potential risk is worth the value of education provided. While risk in inherent in everything we do, we take risk seriously. The IFR engages in intensive review of each field school. Once a program is approved, the IFR reviews each program annually to make sure it complies with all our standards and policies, including student safety.

The IFR does not provide trip or travel cancellation insurance. We encourage students to explore such insurance on their own as it may be purchased at affordable prices. Insuremytrip.com or Travelgurad.com are possible sites where field school participants may explore travel cancellation insurance quotes and policies. If you do purchase such insurance, make sure the policy covers the cost of both airfare and tuition. See this Wall Street Journal article about travel insurance that may help you with to help to decide whether to purchase such insurance.

Vietnam is a very safe country for travel and the field school will be done in collaboration with local universities, government and professional organizations. We will have all necessary permissions from them for completing fieldwork. Students should be careful to only drink bottled water and to use common sense with regards to trying local street foods. Fieldwork in the mountains and lagoon areas will be done on rented motorbikes/ scooters (the usual means of transportation in the country). IFR students will be paired with Vietnamese participants who will be drivers (and IFR students as passengers).

We do our best to follow schedule and activities as outlined in this syllabus. Yet local permitting agencies, political, environmental, personal or weather conditions may force changes. This syllabus, therefore, is only a general commitment. Students should allow flexibility and adaptability as research work is frequently subject to change.

If you have any medical concerns, please consult with your doctor. For all other concerns, please consult with the project director.

COURSE OBJECTIVES

- Students will be intensively engaged with fieldwork, following pre-defined sites and with a given methodology (derived from *Urban Dwelling Environments*, by H. Caminos, J. Turner, J. Steffian, Cambridge: MIT Press, 1969 and various other methods developed by landscape architects and urbanists), in order to critically map and interpret constraints and opportunities for future development in the Truong Son Mountains and the Tam Giang-Cau Hai Lagoon.
- They will study the challenges facing settlements and environments in Vietnam's era of increased urbanization and accelerated climate change and learn about existing strategies that are used to make them more adaptive and robust.
- They will have to gain an understanding of the specific, socio-cultural, ecological and political conditions which can frame the possibility of alternative development paradigms and how they can be appropriated locally.
- Students will learn how to derive such an understanding of specific, socio-cultural, ecological and political conditions through, among others, live exchanges with stakeholders. In that sense, participants will acquire experience with the setting up of/conducting living labs.

- Students will learn to read critically maps and other iconographic materials and form conceptualizations from this reading that are relevant to projective thinking concerning sites.
- Students should develop novel, sharp and refined ways to perceive, represent and reimagine the environment.

Students should develop skills of working as a group and creating a collective project, through the end product of an exhibition and publication.

LEARNING OUTCOMES

- Students will have gained a number of fieldwork tools and methodologies of landscape and urbanism to engage in the local context of the Central Highlands in Vietnam. More generally speaking, participants will acquire experience with the setting up of/conducting living labs within the fields of urban design and environmental planning.
- Students will learn how to derive an understanding of specific, socio-cultural, ecological and political conditions through a combination of literature review, field work and live exchanges with stakeholders.
- They will have understood principles of landscape urbanism and developed design strategies at the territorial, landscape and urban morphology and typology scales. Attention will focus on adaptation to the predicted consequences of climate change. Beside the principles of landscape urbanism, its main techniques will be transmitted.
- Students should learn to critically read texts and form insights that are relevant to the contemporary context and instructive for landscape urbanisms projections. Similarly, students will learn to critically read maps and other iconographic materials and form conceptualizations from these readings that are relevant to projective thinking concerning sites.
- Students will increase their design capacity and especially learn how to consciously exploit the capacity of design to integrate different, disparate forms of information and knowledge in projective endeavors.
- They will co-produce an exhibition and publication of their work which will serve as platform for discussion with local experts and leaders. This will increase the capacity of students to co-operate (with partners, across different disciplines and sectors) as well as increase their presentation skills (including the capacity to organize exchange with stakeholders during and at the end of a research and design cycle).

GRADING MATRIX

Fieldwork (rigor and application of methods, insights)	30%
Design strategy development (innovation, relevance to local context, clarity of expression)	30%
Presentations (including of reading assignment, mid and final reviews, exhibition and publication preparation)	20%
Group collaboration (with other IFR participants and with locals/interaction with stakeholders)	20%

TRAVEL & MEETING POINT

We suggest you hold purchasing your airline ticket until six (6) weeks prior to departure date. Natural disasters, political changes, weather conditions and a range of other factors may require the cancelation of a field school. The IFR typically takes a close look at local conditions 6-7 weeks prior to program beginning and make Go/No Go decisions by then. Such time frame still allows the purchase deeply discounted airline tickets while protecting students from potential loss if airline ticket costs if we decide to cancel a program.

We will meet participants in the lobby of a local hotel in Hue (the address to be provided later). There will be mini-van arrangements from Phu Bai Airport on January 5 to provide transport by bus to the city center (details will be developed as flight times are confirmed). If you missed your connection or your flight is delayed, please call, text or email project director immediately. A local emergency cell phone number will be provided to all enrolled students.

VISA REQUIREMENTS

Students are responsible for obtaining a Vietnamese TOURIST Visa prior to arrival. This can most easily be done online (https://www.vietnamevisagov.com/apply-visa?country=us). Please note that you must have a US Passport which is valid for at least 6 months beyond the arrival date and which has 2 blank pages for visa stamp.

Citizens of other countries are asked to check the embassy website page at their home country for specific visa requirements.

ACCOMMODATIONS

There will be three sites of accommodation: 1) in the Truong Son Mountains: a homestay for 2 nights with the local ethnic population; 2) in Hue, a local small-scale hotel with all necessary services and within a lively central environment; 3) in the Tam Giang-Cau Hai lagoon: a local small-scale hotel. During the 2 days in the mountains, the local hosts will be responsible for our food: they are used to hosting national and international guests. In Hue, breakfast is provided by the accommodation. For lunch and dinner, there are ample small-scale restaurants available (catering to national and international tourists), that usually are very flexible in addressing dietary requests. In the lagoon, there are a number of small-scale beachside restaurants that have great seafood and other local fare. Students will be warned to only drink bottled water and to be careful with ice in drinks.

COURSE SCHEDULE

All IFR field school begins with safety orientation. This orientation includes proper behavior at the field area, proper clothing, local cultural sensitivities and sensibilities, potential fauna and flora hazards, review IFR harassment and discrimination policies and review of the student Code of Conduct.

Week 1: Reading/ interpreting the larger context

The first week will serve as an introduction to the larger Thua Thien Hue context and begin a focus on the case sites in the mountains and lagoon. Through dealing with the case, students will be introduced to and analysis methods and tools of landscape urbanism and punctual lectures from fields that feed the urbanism discourses and practices (in this case: ethnography/social and cultural anthropology (material culture), history, ecology and forestry, environmental sciences, planning)

Sunday 3 January	arrive in Phu Bai Hue Airport
	Pick up with bus, transfer to Hue (3pm)
	Welcome dinner and introduction of participants to one another
	(sleep in Hue)
Monday 4 January	Official opening and meeting in local university/administration with local community leaders (Peoples' Committee People, DoC, DoNRE, local experts)
	introduction presentation by participants (of previous urbanism work/ interests) and lecture by B. De Meulder/ K. Shannon (introduction to Hue/ fieldwork method of urbanism and outputs (processing and representation methods)

	Meeting with local stakeholders/context (local presentations)
	Meeting with content (local expert lectures on Hue history, tombs history/ethnography)
	Assignment of fieldwork sites/ groups
	(sleep in Hue)
Tuesday 5 January	boat trip on Huong River with stop to UNESCO Royal tombs and citadel
	(sleep in Hue)
Wednesday 6 January	bus to Truong Son Mountains with professor from Hue University of Forestry
	Urban tissue fieldwork (400 x 400 m squares)
	Evening lecture on forestry policy, urban forestry challenges, by Mai;
	(sleep in mountain homestay)
Thursday 7 January	Urban tissue fieldwork (400 x 400 m squares)
	Evening lecture on Cham and other ethnic groups on cultures of dwelling
	(sleep in mountain homestay)
Friday 8 January	Work session on mountainous urban tissue
	Early evening bus to Hue
	(sleep in Hue)
Saturday 9 January	motorbikes to Tam Giang-Cau Hai Lagoon with overview tour on the way
	Evening lecture Detecting and understanding indigenous landscape urbanisms in times of generic development (through the case of Thua Thien Hue province) by B. De Meulder/ K. Shannon
	(sleep in lagoon)
Sunday 10 January	lagoon north fieldwork; evening processing with feedback
	(sleep in lagoon)
	Evening lecture by B. De Meulder/ K. Shannon (introduction to lagoon (as case of representing complex layered landscape urbanisms)

Week 2: Reading/ interpreting the lagoon (Combining macro logics and micro-stories; scales and sectors)

(lectures/ interaction with local leaders, Fishing Association, community-based tourism groups)

Monday 11 January	lagoon north fieldwork; evening processing with feedback
	(sleep in lagoon)
Tuesday 12 January	lagoon center fieldwork; evening processing with feedback + lecture by Linh of
	Vietnamese cultural institutions (chua, dinh, etc.)
	(sleep in lagoon)
Wednesday 13 January	lagoon center fieldwork; evening processing with feedback

	(sleep in lagoon)
Thursday 14 January	lagoon south fieldwork; evening processing with feedback
	(sleep in lagoon)
Friday 15 January	lagoon south fieldwork; evening processing with feedback
	(sleep in lagoon)
Saturday 16 January	arrival of young Vietnamese professionals
	Evening lecture by B. De Meulder/ K. Shannon (design strategies in landscape urbanism)
Sunday 17 January	work session in lagoon

Week 3: Development of alternative settlement and occupation morphologies and typologies, presentation to and exchange with stakeholders

Monday 18 January	work session in lagoon
Tuesday 18 January	work session in lagoon, preparing representation in exhibition
Wednesday 20 January	work session in lagoon, mounting of exhibition
Thursday 21 January	feedback session with locals representing, presenting and discussing
Friday 22 January	revisiting of sites
Saturday 23 January	TET holiday: fieldwork in tombs landscapes on high-day of ancestor worship

Week 4: Self-evaluation, /critical assessment, final adaptation and editing of analysis and development scenarios, processing in booklet for specialized and general audiences

Monday 25 January	revisiting of sites
Tuesday 26 January	revisiting of sites
Wednesday 27 January	creation of publication
Thursday 28 January	creation of publication
Friday 29 January	feedback/ evaluation, departure event
Saturday 30 January	Students' departure

EQUIPMENT LIST

Students should bring a camera, sketchbook, pencils & markers and laptop that has basic graphic programs installed (ACAD, Adobe Illustrator, Photoshop and InDesign). If you do not have a laptop or these programs installed, please contact the field school directors so we can work out a solution. Lack of ownership of these items is not a hindrance for your participation in this field school.

REQUIRED READINGS

PDF files of all mandatory readings will be provided to enrolled students via a shared BOX folder.

Readings before arrival in Vietnam

Assignment: Every student must choose 3 texts (2 in different general themes and one in part 7, Thua Thien Hue) in addition to one mandatory text for all. Each student should make one synthesis per text: 1 page ONLY, 11-point Arial with bullet points and important quotes (with page number). The work will be presented to others during first days of field school (coupled with fieldwork images/ drawings).

Mandatory text for all

De Meulder, B. and Shannon, K. (2019) "Settling along, with and on water in Thua Thien Hue (Vietnam): Past, Present & Future," *Landscape Architecture Frontiers* (forthcoming)

General Themes

1. Forestry

Boris, S. D. (2012) "Urban forest and landscape infrastructure: towards a landscape architecture of open-endedness" in *Journal of Landscape Architecture*, 7(2), 54-59

Busse Nielsen, A., Hedblom, M., Stahl Olafsson, A. and Wistrom, B. (2107) "Spatial configurations of urban forest in different landscape and socio-political contexts: identifying patterns for green infrastructure planning" in *Urban Ecosystems* 20: 379-392.

Carlisle, S., Pevzner, N. and Piana, M. (2014) "Introduction: Building the Urban Forest" in *Scenario 04: Building the Urban Forest* (see https://scenariojournal.com/article/building-the-urban-forest/)

De Meulder, B. and Shannon, K. (2014) "Forests and Trees in the City: Southwest Flanders and the Mekong Delta" in in *Revising Green Infrastructure: Concepts Between Nature and Design,* D. Czechowski, T. Hauck, G. Hausladen (eds.) London: CRC Press, 427-49.

Konijnendijk van den Bosch, C. (2016) "Tree agency and urban forest governance" in Smart and Sustainable Built Environment, vol. 5, no. 2: 176-188.

Konijnendijk van den Bossch, C. C. (2008). *The forest and the city: the cultural landscape of urban woodland*. London: Springer (chapter 13: a forest for the future, but also other chapters)

Piana, M. and Troxel, B. (2014) "Beyond Planting: an Urban Forestry Primer" in *Scenario 04: Building the Urban Forest* (see https://scenariojournal.com/article/beyond-planting/)

Steenberg, J., Millward, A., Nowak, D., Robinson, P. and Ellis, A. (2017) "Forecasting Urban Forest Ecosystem Structure, Function and Vulnerability" in *Environmental Management* 59: 33-392.

Szanto, C. and Diedrich, L. (eds) (in progress) Landscape Laboratories (not yet published).

Thorpert, P. and Busse Nielsen (2014) A. "Experience of vegetation-borne colours" in Journal of Landscape Architecture, 9:1, 60-69.

Weller, R. and Hands, T. (2014) "Building the Global Forest" in *Scenario 04: Building the Urban Forest* (see https://scenariojournal.com/article/building-the-global-forest/)

2. Settlements Systems

Cosgrove, D. (2006) "Los Angeles and the Italian Città Diffusa: Landscapes of the Cultural Space Economy" in *Landscapes of a New Cultural Economy of Space*, edited by T.S. Terkenli and A. d'Hauteserre: 69-91.

Dansereau, P. (1978) "An Ecological Grading of Human Settlements" in *Geoforum*, Vol. 9: 161-210.

De Meulder, B. (2010) "Back to the Start and Elsewhere: Travels between Cities and Natures" in N. Meijsams (ed.) *Designing for a Region*, Amsterdam: Sun Academia, 216-227.

Purdy, J. (2018) “The world we’ve built: to be human is to shape the world, to create the infrastructure of our common lives. What do we do when that infrastructure becomes a trap?” in *Dissent* (see https://www.dissentmagazine.org/online_articles/world-we-built-sovereign-nature-infrastructure-leviathan)

3. Water Urbanism

De Meulder, B. and Shannon, K. (2013) “Water Urbanisms East: Emerging Practices and Age-Old Traditions” in B. De Meulder and K. Shannon (eds.) *Water Urbanisms East*, Zurich: Park Books, 4-17.

De Meulder, B. and Shannon, K. (2013) “Mangroving Ca Mau, Vietnam: Water and Forest as Development Frames” in B. De Meulder and K. Shannon (eds.) *Water Urbanisms East*, Zurich: Park Books, 118-137.

Geuze, A. and Bindels, E. with Bosch, R. (2019) “The New Honsbossche Dunes” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 317-30.

Handel, S.N., Ford, G. and Hensold, B. (2019) “Resilience and Coastal Ecosystems: Three Typologies, Three Design Approaches” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 195-208.

Hill, K. (2019) “Armatures for Coastal Resilience” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 415-35.

John-Alder, K. (2019) “Drawing a Line in the Sand: Rebuild by Design, Mathematical Modeling and Blue Dunes” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 111-22.

Lister, N-M. (2019) “(Re)Think (Re)Design for Resilience” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 35-48.

Mathur, A. and da Cunha, D. (2019) “Designing the Coast in the Moment of Rain” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 5-20.

Nolf, C. and De Meulder, B. (2017) “Grafting on the Water Landscape in the Dispersed Urban Territory of Flanders” in *Water vs. Urban Scape*, M. Ranzato (ed.), Berlin: Jovis, 65-82.

Retkittke, J. (2013) “Being in Deep Urban Water: Finding the Horizontal Urban Trim Line” in B. De Meulder and K. Shannon (eds.) *Water Urbanisms East*, Zurich: Park Books, 80-91.

Seavitt Nordenson, C. (2019) “Structures of Coastal Resilience: Adaptive Design for Jamaica Bay, New York” in *Sustainable Coastal Design and Planning*, E. Mossop (ed.), Baton Rouge: CRC Press, Taylor & Francis Group, 175-94.

Shannon, K. (2009) “Water Urbanism: Hydrological Infrastructure as Urban Frame in Vietnam” in *Water and Urban Development Paradigms: Towards and Integration of Engineering, Design and Management Approaches,* in J. Feyen, K. Shannon, M. Neville (eds.) (Proceedings of International Conference, 15-17 September 2008, Leuven) Dordrecht: CRC Press, Taylor & Francis Group, 55-65.

Shannon, K. (2013) “Eco-engineering for Water: From Soft to Hard and Back” in Resilience in Ecology and Urban Design: Linking Theory and Practice for Sustainable Cities, Future City 3, S.T.A. Pickett et al. (eds), Dordrecht: Springer, 163-81.

Shannon, K. and De Meulder, B. (2013) “Revising the Cantho Masterplan, Vietnam: Pilotage of a Civic Spine in a Blue-Green Landscape Mesh” in B. De Meulder and K. Shannon (eds.) *Water Urbanisms East*, Zurich: Park Books, 138-61.

Wen, P.C. and Shannon, K. (2013) “A Modern Times Version of the Hydraulic Civilization: Water Engineering in the Chia-Nan Plain, Taiwan Since 1919” in B. De Meulder and K. Shannon (eds.) *Water Urbanisms East*, Zurich: Park Books, 176-86.

4. Sacred Landscapes

DiGregorio, M. and Salemink, O. (2007) “Living with the Dead: The politics of ritual and remembrance in contemporary Vietnam” in in *Journal of Southeast Asian Studies*, 38(3): 443-440.

Huwelmeier, G. (2016) “Cell phones for the spirits: ancestor worship and ritual economies in Vietnam and its diasporas” in *Material Religion*, 12:3: 294-321.

Jellema, K. (2007) “Everywhere incense burning: Remembering ancestors in Doi Moi Vietnam” in *Journal of Southeast Asian Studies*, 38(3): 467-492.

5. Productive Landscapes

Bohn, K. and Viljoen, A. (2005) “New Space for Old Cities” in *Continuous Productive Urban Landscapes: Designing Urban Agriculture for Sustainable Cities*, A. Viljoen (ed.), Oxford: Architectural press, 239-250.

Elkin, R.S., (2018) “The Politics of the Rhizophere” Interview with Anna L. Tsing, in *Out of the Woods, Harvard Design Magazine*, Cambridge (May 2018)

Imbert, D. (2016) “Aux Fermes, Citoyens!” in *Ecological Urbanism*, M. Mostafavi, G. Doherty (eds.), Lars Muller Publishers, 270-281.

Mance, H. (2018) “Algorithmic wilderness: Robo-bees and drone-seeded forests. Can technology mend our broken relationship with the natural world?” in *Aeon* (see https://aeon.co/essays/tech-broke-our-relationship-with-wilderness-can-it-mend-it-too)

McGrath, B. (2018) “Intersecting disciplinary frameworks: the architecture and ecology of the city” in *Ecosystem Health and Sustainability,* 4(6): 148-159.

Purdy, J. (2015) “An Environmentalism for the Left” in *Dissent* (see https://www.dissentmagazine.org/article/after-nature-left-environmentalism-jedediah-purdy)

6. National Parks

Buhle, P. (2000) “First wave eco-socialism” in *Capitalism, Nature, Socialism*, Vol. 11, Iss. 3, 38-40.

7. Thua Thien Hue Province

Andrachuk, M. and Armitage, D. (2015) “Understanding social-ecological change and transformation through community perceptions of system identity” in *Ecology and Society* 20(4):26. http://dx.doi.org/10.5751/ES-07759-200426

Armitage, D. and Marschke, M. (2013) “Assessing the future of small-scale fishery systems in coastal Vietnam and the implications for policy” in *Environmental Science & Policy* 27, 184-194.

Beckman, M. (2011) “Converging and conflicting interests in adaptation to environmental change in central Vietnam” in *Climate and Development*, 3:1, 32-41.

Disperati, L. and Pasquale Virdis, S.G. (2015) “Assessment of land-use and land-cover changes from 1965 to 2014 in Tam Giang-Cau Hai Lagoon, central Vietnam” in *Applied Geography*, Vol. 58, 48-64.

Erikkson, E. and Persson, M.H. (2014) “Sediment Transport and Coastal Evolution at Thuan An Inlet, Vietnam” in *Journal of Water Management and Research* 70: 169-79.

Hieu, T., Lyne, M. and Woodford, K. (2104) “Managing Water Pollution to Revitalise the Shrimp Supply Chain in Tam Giang Cau Hai Lagoon, Vietnam” in *UMK Procedia*, vol. 1: 50-56.

Hirai, Y., Nguyen, V.L. and Oanh, T.T.K. (2008) “Assessments of Sea Level Rise on Tam Gian-Cau Hai Lagoon Area Based on Geomorphological Survey Map” in *Regional Views*, No. 21: 1-8.

Hirai, Y., Satoh, T., Tanaka, Y., Nguyen, V.L. and Oanh, T.T.K. (2013) “Environmental Assessment of the Rapid Expansion of Intensive Shrimp Farming in Tam Gian-Cau Hai Lagoon, Central Vietnam” in *Komazawa Journal of Geography*, No. 49: 1-9.

Le, X.T. (2012) “Preliminary assessment of sea level rise impacts to coastal ecosystems in Thua Thien-Hue” in *VNU Journal of Science, Earth Sciences* 28: 140-51.

Martinez, M.L., Hesp, P.A. and Gallego-Fernandez, J.B. (2013) “Coastal Dune Restoration: Trends and Perspectives” in Restoration of Coastal Dunes, M.L. Martinez, J.B. Gallego-Fernandez, P.A. Hesp (eds.), London: Springer, 323-39.

Nga, T.T.H., Ross, H. and Coutts, J. (2016) “Evaluation of social and ecological outcomes of fisheries co-management in Tam Giang Lagoon, Vietnam” in *Fisheries Research*, vol. 174, 151-9.

Nguyen, N.D., Lei, G.P. and Le, P.C.L. (2018) “Land Unit Mapping and Evaluation of Land Suitability for Agro-forestry in Thua Thien Hue Province Vietnam as an example” in IOP Conf. Series: Earth and Environmental Science 159: 1-11.

Pham, H.N. (2006) “Proposal of environmental monitoring indicators for Tam Giang-Cau Hai Lagoon, Thua Thien Hue Province, Vietnam” in Vietnam—Japan Estuary Worksop, August 22-24, 2006: 118-127.

Tong, T.H.H. and Boonstra, W.J. (2018) “Can income diversification resolve social-ecological traps in small-scale fisheries and aquaculture in the global south? A case study of response diversity in the Tam Giang lagoon, central Vietnam” in *Ecology and Society* 23(3):16 (https://doi.org/10.5751/ES-10207-230316)

Tran, T.D., Tanaka, U. and Kobayashi, H. (2012) “Living with typhoon and flood disasters: a case study in Huong Phong commune, Tam Giang lagoon area, central Vietnam” in *SANSAI : An Environmental Journal for the Global Community* 6: 85-9.

Tran, T.D., Tanaka, U., Mizuno, K., Kobayashi, H., Okamoto, Y. and Le, V.A. (2011) “Livelihood activities and living environment related to poverty of households in Tam Giang lagoon area, Central Vietnam” in *Journal of Arts and Social Sciences* (J.JASS), 277 (4), 159-66.

Tran, H.T., Mai, V.X., Do and N. Navrud, S. (2009) “Valuing direct use values of wetlands: A case study of Tam Giang-Cau Hai lagoon wetland in Vietnam” in *Ocean & Coastal Management* 52: 102-112.