



UNIVERSIDAD
esan

Course syllabus Spatial Planning

March – July 2019

Term VII

Carrión Puelles, Naldi

I. General course information

Course Name:	Spatial Planning		
Pre-requisite:	Geographical Information Systems	Code:	7964
Precedents:	does not apply	Semester:	2019-1
Credits:	3	Term:	VII
Week Hours:	4 (2 hours of theory and 2 of practice)	Course mode:	On-campus Normal (lecture/lab/tutorial) day
Type Course and Faculty/University Department:	Mandatory unit Environmental Management Engineering	Course Coordinator:	Mayra Arauco Livia marauco@esan.edu.pe

II. Summary

The course gives students a grounding in the basic principles and objectives of Spatial planning, an understanding of its systemic structure and practice in applying its concepts in a national and global context, focusing on sustainable development and risk management.

It provides knowledge of instruments, sources, frameworks, tools, and techniques for the analysis and understanding of Spatial Planning, as well as a diagnosis of regional and land-use management system in Peru, strengthening ecological and economic zoning (EEZ) theoretical concepts.

III. Course Objectives

To assess the challenges of sustainable development and climate change, and from these perspectives draw up Spatial Plans taking into account social phenomena and theoretical concepts of including Regional and Land Use Planning and resource management.

IV. Results of Learning

By the end of the course, students will be able to:

1. Understand Spatial, Regional and Land-Use Planning concepts.
2. Recognize and analyze Spatial Planning processes and their social, economic and environmental considerations.
3. Recognize the evolution of spatial planning.
4. Relates Spatial, Regional and Land-Use Planning concepts in the context of climate change, sustainable development and risk management.
5. Identify the implications of Spatial Planning when generating public policies and good governance.

6. Identify and evaluate Peruvian spatial planning policies and regulations.
7. Learn how to elaborate a logframe matrix with territorial view.
8. Recognize tools for Territorial Economic Development Planning.
9. Apply theoretical knowledge and diagnostic techniques in a practical case.
10. Identify and analyze the process of drawing up the Spatial Plan and its tools to prioritized options in SPs.
11. Recognize Peru's spatial planning tools and their components.
12. Identify basic concepts of Urban Planning and Strategic Environmental Assessment.
13. Recognizes the information and communication technology application for spatial planning.
14. Applies the Spatial Multi-criteria Evaluation as an application of ITC for Spatial Planning.
15. Recognizes Smart Cities initiatives as strategic tool to develop Sustainable Cities.
16. Apply theoretical and technical knowledge to propose a according to regulations and/or laws and integrated with Urban and Zoning Plans and other development Plans.
17. Compare and contrast methodologies implemented in other countries versus ones implemented in Peru.

V. Methodology

Teaching-centered strategies

- a. Induction
- b. Awareness techniques
- c. Demonstration
- d. Problem-based teaching

Learning-centered strategies

- a. Group work
- b. Case studies
- c. Team work
- d. Interactive presentations

VI. Assessment

Requirements to pass the course

- Absent no more than 20% of programmed class hours in the semester, with absences duly justified.
- Minimum passing mark: 11.00
- Plagiarism: If proven, the mark awarded for the work assessed will be zero (0) and the student will be sanctioned according to university regulations.

The assessment system is permanent and comprehensive. The final course grade is obtained by averaging the continuous assessment (50%), the midterm exam (25%) and the final exam (25%).

The continuous assessment average (CAA) is obtained from the weighted average of the assessments of the student's work. The weightings of each continuous assessment are shown in the following table:

CONTINUOUS ASSESSMENT AVERAGE 50%		
Type of assessment	Description	Weighting %
Quizzes	Three (03) quizzes during the cycle	15%
Test	Three (03) Tests during the cycle	30%
Group work	Two (02) report evaluation – 20%	40
	Final oral exposition of the work –20 %	
Practices Cases	Three (03) reports during the cycle	20
Participation in class	Participation and involvement in the class and group work.	5%

The final average (FA) is calculated as follows:

$$FA = (0.25 \times MT) + (0.50 \times CAA) + (0.25 \times FE)$$

Where:

- FA** = Final Average
MT = Midterm exam
CAA = Continuous assessment average
FE = Final Exam

VII. Programmed Content

WEEK	CONTENT	ACTIVITIES / ASSESSMENT
LEARNING UNIT I: INTRODUCTION TO SPATIAL PLANNING LEARNING RESULTS: <ol style="list-style-type: none"> 1. Understand Spatial, Regional and Land-Use Planning concepts. 2. Recognize and analyze Spatial Planning processes and their social, economic and environmental considerations. 3. Recognize the evolution of spatial planning. 		
<p style="text-align: center;">1°</p> <p style="text-align: center;">March 21 - 27</p>	<p>Introduction to Spatial Planning</p> <p>1.1. Territory and Planning definition and the role of planning</p> <p>1.2. Regional and land-use planning definition.</p> <p>1.3 Spatial planning principles and framework</p> <p>1.4 Spatial planning definition and objectives.</p> <hr/> <p>Economic Commission for Europe. (2008). Spatial planning: Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition. Geneva, Switzerland, 1-12.</p>	<ul style="list-style-type: none"> - Course methodology explanation. - Continuous assessment review, detailing each process. - APA Referencing Style Review (APA Manual) - Guidance for Mendely use in laboratory. - 1st Practice Case selection. <ul style="list-style-type: none"> o Putting the rise of the Inca Empire within a climatic and land management context. o The Materiality of Inka Domination: Landscape, Spectacle, Memory, and Ancestors. o A Network Analysis of Inka Roads, Administrative Centers, and Storage Facilities. o The Politics of Community and Inka Statecraft in the Colca Valley, Peru. o Moche Politics in the Jequetepeque Valley: A Case for Political Opportunism. o Socio-Economic Organization of the Moche Valley, Peru, During the Chimu occupation of Chan Chan. - Lecture
<p style="text-align: center;">2°</p> <p style="text-align: center;">March 28 – April 03</p>	<p>Spatial Planning Evolution</p> <p>3.1 Recognition of social, economic and environmental considerations for Spatial Planning.</p> <p>3.2 Spatial planning evolution in the ancient times around the world</p> <p>3.3 Spatial planning application in the Ancient Peru.</p>	<ul style="list-style-type: none"> - Lectures

	<p>Alconini, S., & Malpass, M. A. (2010). Toward a Better Understanding of Inka Provincialism. In S. Alconini & M. A. Malpass (Eds.), <i>Distant Provinces in the Inka Empire</i> (pp. 279–299). Iowa: University of Iowa Press.</p> <p>Wassenhoven, L. C. (2019). Introduction, Historical Periods and Examples. In <i>The Ancestry of Regional Spatial Planning: A Planner's Look at History</i> (pp. 7–44). Athens: Springer Nature Switzerland AG.</p>	
<p>LEARNING UNIT II: SPATIAL PLANNING AND CLIMATE CHANGE</p> <p>LEARNING RESULTS:</p> <p>4. Relates Spatial, Regional and Land-Use Planning concepts in the context of climate change, sustainable development and risk management.</p> <p>5. Identify the implications of Spatial Planning when generating public policies and good governance.</p>		
<p>3°</p> <p>April 04 - 10</p>	<p>4.1 Challenges for spatial planning</p> <p>4.2 Implications of Spatial planning for sustainable development and Climate Change.</p> <p>4.3 Impacts and opportunities of climate change and the synergy between mitigation and adaptation.</p> <p>4.4 International Laws and Policies</p> <hr/> <p>Wilson, E., & Piper, J. (2010). Spatial planning, climate change and sustainable development. In J. Glasson (Ed.), <i>Spatial Planning and Climate Change</i> (1st ed., pp. 3–17). New York: Routledge.</p>	<p>- Hand-in 1st Practice Case Report.</p> <p>- 1st Test.</p> <p>- Lecture</p> <p>- 2nd Practice Case selection.</p> <ul style="list-style-type: none"> o Ley N° 28245: Ley Marco del Sistema Nacional de Gestión Ambiental, y Decreto Supremo N° 008-2005-PCM: Reglamento de la Ley Marco del Sistema Nacional de Gestión Ambiental, o Ley N° 30754: Ley Marco Sobre Cambio Climático. o Ley N° 26834: Ley de Áreas Naturales Protegidas. o Ley N° 29664: Ley que crea el Sistema Nacional de Gestión de Desastres (SINAGRED) o DS N° 022-2016-VIVIENDA: Reglamento de Acondicionamiento Territorial y Desarrollo Urbano Sostenible
<p>4°</p> <p>April 11 – 17</p>	<p>5.1 Governance and Spatial Planning</p> <p>5.2 Conceptual framework of governability and the relationship with Spatial Planning.</p> <p>5.3 The context of public policies and laws: at local, regional, national and international level.</p> <hr/> <p>Wang, L. (2019). Spatial Planning and Governance : Literature Review. In <i>Changing Spatial Elements in Chinese Socio-economic Five-year Plan: from Project Layout to Spatial Planning</i> (1st ed., pp. 7–44). Beijing: Science Press, Springer Nature Singapore. https://doi.org/10.1007/978-981-13-1867-2</p>	<p>Lecture</p> <p>1st Quiz: Making time for space: The critical role of spatial planning in adapting natural resource management to climate change.</p>

LEARNING UNIT III: INSTRUMENTS FOR SPATIAL PLANNING		
LEARNING RESULTS:		
<p>6. Identify and evaluate Peruvian spatial planning policies and regulations.</p> <p>7. Learn how to elaborate a logframe matrix with territorial view</p> <p>8. Recognize tools for Territorial Economic Development Planning.</p> <p>9. Apply theoretical knowledge and diagnostic techniques in a practical case.</p>		
<p>5° April 22 - 27</p>	<p>6.1 Review of Peruvian Regulatory Framework and their integration within public policies, Bicentenary Plan and other regulations.</p> <p>6.2 Progress achieved on Peruvian regions</p>	Lectures
	<p>Ministerio del Ambiente. (2016). Instrumentos Técnico Normativos del Ordenamiento Territorial. Lima: Ministerio del Ambiente.</p>	
<p>6° April 29 – May 04</p>	<p>7.1 Logframe matrix with territorial view</p> <p>8.1 Territorial economic development (TED) and the potentiality approach, tools to develop TED strategies and for field observation</p>	<p>- Lectures</p> <p>- Hand-in 2nd Practice Case Report.</p> <p>- 2nd Test.</p>
	<p>Morales Barragan, F., & Jiménez López, F. (2018). Fundamentos del Enfoque Territorial en el Marco Lógico. In M. Aguiluz Ibarguen, A. Cetto Kramis, C. Hernández Alcántara, R. Mansilla Corona, A. Negrete Yankelevich, M. Sánchez Menchero, ... M. Yerena Capistrá (Eds.), Fundamentos del Enfoque Territorial: actores, dimensiones, escalas espaciales y sus niveles (1ra ed., pp. 53–86). México CDMX: Universidad Nacional Autónoma de México, Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades.</p>	
<p>7° May 06 - 11</p>	<p>9.1 Field visit (11/05)</p>	Field observation and evaluation (outskirts of Lima)
<p>8° May 13 - 18</p>	MIDTERM EXAMS	
LEARNING UNIT IV: TOOLS TO ESTABLISH PRIORITIES IN SPATIAL PLANS		
LEARNING RESULTS:		
<p>10. Identify and analyze the process of drawing up the Spatial Plan and its tools to prioritized options in SPs.</p> <p>11. Recognize Peru’s spatial planning tools and their components.</p> <p>12. Identify basic concepts of Urban Planning and Strategic Environmental Assessment</p>		
<p>9° May 20 - 25</p>	<p>10.1 Spatial Planning tools in Peru</p> <p>11.1 Methodology and National Policies for drawing up an Ecological and Economic Zoning-EEZ.</p> <p>11.2 Methodology and National Policies for Specialized Studies:</p> <p>11.2.1. Regional Economics Dynamic Analysis</p> <p>11.2.2. Territorial Laws and Regulations Study – TLRs</p>	<p>- Lectures</p> <p>- Review of key national policies</p> <p>- Playground activity: National Policies plywood puzzles.</p> <p>- 3rd Practice Case selection.</p>

	<p>Primer Concejo de Ministros. Decreto Supremo N°087-2004-PCM: Aprueban el Reglamento de Zonificación Ecológica y Económica (ZEE) (2004). Peru: El Peruano.</p> <p>Ministerio del Ambiente. Resolución Ministerial N° 156-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Dinámica Económica Regional (2016). Peru: El Peruano</p> <p>Ministerio del Ambiente. Resolución Ministerial N° 136-2015-MINAM: Aprueban el documento denominado “Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Normativa y Políticas con Incidencia Territorial” (2015). Peru: El Peruano.</p>	<ul style="list-style-type: none"> ○ Select and analyse any Peru’s approved EEZ
<p>10° May 27 – June 01</p>	<p>11.2.3. Risk Assessment and Climate Change Vulnerability Assessment. 11.2.4. Ecosystem Services Study</p>	<p>Lectures</p> <p>- Hand in 1st Group work report (field visit):</p> <ul style="list-style-type: none"> ○ Elaboration of a logframe matrix ○ Elaborate one territorial economic development (TED) tool. <p>Review of key national policies</p> <p>Playground: Risk Management with Minecraft</p>
	<p>Ministerio del Ambiente. Resolución Ministerial N° 008-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Evaluación de Riesgos de Desastres y Vulnerabilidad al Cambio Climático (2016). Peru: El Peruano.</p> <p>Ministerio del Ambiente. Resolución Ministerial N° 311-2015-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado Servicios Ecosistémicos para el Ordenamiento Territorial (2015). Peru: El Peruano.</p>	
<p>11° June 03 - 08</p>	<p>11.2.5. Land Coverage Changes and Land-Use Analysis. 11.2.6. Institutional Capacity Analysis</p>	<p>Lectures</p> <p>- Hand-in 3rd Practice Case Report.</p> <p>- 3rd Test.</p> <p>Review of key national policies</p> <p>Playground activity: Land-Use Typology Playwood Puzzels.</p>
	<p>Ministerio del Ambiente. Resolución Ministerial N° 159-2015-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Análisis de Capacidad Institucional (2015). Peru: El Peruano.</p> <p>Ministerio del Ambiente. Resolución Ministerial N° 081-2016 MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Análisis de los Cambios de la Cobertura y Uso de la Tierra (2016). Peru: El Peruano.</p>	
<p>12° June 10 - 15</p>	<p>11.2.7. Marine and Coastal Habitat and Ecosystems Analysis.</p>	<p>Lectures</p> <p>Review of key national policies</p> <p>2nd Quiz</p> <p>Conceptualizing strategic environmental assessment: Principles, approaches and research directions</p>
	<p>12.1. Urban Planning 12.2. Strategic Environmental Assessment</p> <p>Ministerio del Ambiente. Resolución Ministerial N° 147-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado Ecosistemas y Hábitat Marino Costero (2016). Peru: El Peruano.</p>	

	Seto, K. C., Dhakal, S., Bigio, A., Blanco, H., C., D. G., Dewar, D., ... Ramaswami, A. (2014). Human Settlements, Infrastructure, and Spatial Planning. In O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, ... J. C. Minx (Eds.), <i>Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change</i> (pp. 923–1000). Cambridge, United Kingdom and New York, NY, USA: University Press, Cambridge.	
LEARNING UNIT V: SPATIAL PLANNING AND INFORMATION AND COMMUNICATION SYSTEMS		
<p>13. Recognizes the information and communication technology application for spatial planning</p> <p>14. Applies the Spatial Multi-criteria Evaluation as an application of ITC for Spatial Planning</p> <p>15. Recognizes Smart Cities initiatives as strategic tool to develop Sustainable Cities</p>		
12° June 10 - 15	13.1. Information and Communication Systems for Spatial Planning 14.1. Spatial multi-criteria evaluation (SMCE)	Lectures Study Cases: Generation of a landslide risk index map for Cuba using spatial multi-criteria evaluation.
	Pinto, N. N., Lancrenon, D., & Berchtold, M. (2014). The Use of ICT in Planning Practice: Contributions to an Effective Link between Real and Virtual Cities and Territories. In N. Pinto, J. Tenedório, A. Antunes, & J. Cladera (Eds.), <i>Technologies for Urban and Spatial Planning: Virtual Cities and Territories</i> (pp. 14-28). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-4349-9.ch002	
13° June 17 - 22	15.1. Sustainable Smart Cities and Spatial Planning 15.2. Study Cases (examples)	Lectures Visit to Fab Lab to present an example of IoT apply to Smart City Application using unity software.
	Sustainable Smart Cities and Spatial Planning Study Cases (examples) Batty, M. (2014). Deconstructing Smart Cities. In N. Pinto, J. Tenedório, A. Antunes, & J. Cladera (Eds.), <i>Technologies for Urban and Spatial Planning: Virtual Cities and Territories</i> (pp. 1-13). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-4349-9.ch001 Stratigea, A., Somarakis, G., & Panagiotopoulou, M. (2017). Spatial Data Management and Visualization Tools and Technologies for Enhancing Participatory e-Planning in Smart Cities. In <i>Smart Cities in the Mediterranean. Coping with Sustainability Objectives in Small and Medium-sized Cities and Island Communities</i> (pp. 31–57). https://doi.org/https://doi.org/10.1007/978-3-319-54558-5	Study Cases: The #SmartME project. Internet of Things 3 rd Quiz Construction of a Spatial Planning system at city-level: Case study of “integration of multi-planning”
LEARNING UNIT VI: DRAWING UP A DIAGNOSIS FOR SPATIAL PLANNING		
<p>16. Apply theoretical and technical knowledge to propose a according to regulations and/or laws and integrated with Urban and Zoning Plans and other development Plans.</p> <p>17. Compare and contrast methodologies implemented in other countries versus ones implemented in Peru</p>		

14° June 24 - 29	16.1 Peruvian case studies and International case studies (regional, provincial, coastal area)	Lectures
	Centro Nacional de Planeamiento Estratégico. (2015). Plan de Desarrollo Territorial para la ZONA DEL HUALLAGA AL 2021. Lima. Morphet, J. (2011). Spatial planning in Europe, North America and Australia. In The RTPI Library Series (pp. 1–292). New York: Routledge.	
15° July 01 - 06	16.2. Presentation of Potential and Limitation Evaluation for specific zone in lima	Hand-in 2 nd Report Group work report Groups proposal presentations and discussions
16° July 08 - 13	FINAL EXAMS	

VIII. Bibliography

Basic References

- Alconini, S., & Malpass, M. A. (2010). Toward a Better Understanding of Inka Provincialism. In S. Alconini & M. A. Malpass (Eds.), *Distant Provinces in the Inka Empire* (pp. 279–299). Iowa: University of Iowa Press.
- Batty, M. (2014). Deconstructing Smart Cities. In N. Pinto, J. Tenedório, A. Antunes, & J. Cladera (Eds.), *Technologies for Urban and Spatial Planning: Virtual Cities and Territories* (pp. 1-13). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-4349-9.ch001
- Centro Nacional de Planeamiento Estratégico. (2015). Plan de Desarrollo Territorial para la ZONA DEL HUALLAGA AL 2021. Lima.
- Economic Commission for Europe. (2008). *Spatial planning: Key Instrument for Development and Effective Governance with Special Reference to Countries in Transition*. Geneva, Switzerland, 1-12.
- Ministerio del Ambiente. (2016). *Instrumentos Técnico Normativos del Ordenamiento Territorial*. Lima: Ministerio del Ambiente
- Ministerio del Ambiente. Resolución Ministerial N° 136-2015-MINAM: Aprueban el documento denominado “Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Normativa y Políticas con Incidencia Territorial” (2015). Peru: El Peruano.
- Ministerio del Ambiente. Resolución Ministerial N° 156-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Dinámica Económica Regional (2016). Peru: El Peruano

- Ministerio del Ambiente. Resolución Ministerial N° 159-2015-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Análisis de Capacidad Institucional (2015). Peru: El Peruano.
- Ministerio del Ambiente. Resolución Ministerial N° 311-2015-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado Servicios Ecosistémicos para el Ordenamiento Territorial (2015). Peru: El Peruano.
- Ministerio del Ambiente. Resolución Ministerial N° 008-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Evaluación de Riesgos de Desastres y Vulnerabilidad al Cambio Climático (2016). Peru: El Peruano.
- Ministerio del Ambiente. Resolución Ministerial N° 081-2016 MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado de Análisis de los Cambios de la Cobertura y Uso de la Tierra (2016). Peru: El Peruano.
- Ministerio del Ambiente. Resolución Ministerial N° 147-2016-MINAM: Procedimiento Técnico y Metodológico para la Elaboración del Estudio Especializado Ecosistemas y Hábitat Marino Costero (2016). Peru: El Peruano.
- Morales Barragan, F., & Jiménez López, F. (2018). Fundamentos del Enfoque Territorial en el Marco Lógico. In M. Aguiluz Ibargüen, A. Cetto Kramis, C. Hernández Alcántara, R. Mansilla Corona, A. Negrete Yankelevich, M. Sánchez Menchero, M. Yerena Capistrá (Eds.), *Fundamentos del Enfoque Territorial: actores, dimensiones, escalas espaciales y sus niveles* (1ra ed., pp. 53–86). México CDMX: Universidad Nacional Autónoma de México, Centro de Investigaciones Interdisciplinarias en Ciencias y Humanidades.
- Morphet, J. (2011). *Spatial planning in Europe, North America and Australia*. In The RTPPI Library Series (pp. 1–292). New York: Routledge.
- Pinto, N. N., Tenedório, J. A., Antunes, A. P., & Cladera, J. R. (2014). *Technologies for Urban and Spatial Planning: Virtual Cities and Territories* (pp. 1-349). Hershey, PA: IGI Global. doi:10.4018/978-1-4666-4349-9
- Primer Concejo de Ministros. Decreto Supremo N°087-2004-PCM: Aprueban el Reglamento de Zonificación Ecológica y Económica (ZEE) (2004). Peru: El Peruano.
- Seto, K. C., Dhakal, S., Bigio, A., Blanco, H., C., D. G., Dewar, D., ... Ramaswami, A. (2014). Human Settlements, Infrastructure, and Spatial Planning. In O. Edenhofer, R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, ... J. C. Minx (Eds.), *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (pp. 923–1000). Cambridge, United Kingdom and New York, NY, USA: University Press, Cambridge.
- Stratigea, A., Somarakis, G., & Panagiotopoulou, M. (2017). *Smart Cities in the Mediterranean. Coping with Sustainability Objectives in Small and Medium-sized Cities and Island Communities*. <https://doi.org/https://doi.org/10.1007/978-3-319-54558-5>

- Wang, L. (2019). Spatial Planning and Governance : Literature Review. In Changing Spatial Elements in Chinese Socio-economic Five-year Plan: from Project Layout to Spatial Planning (1st ed., pp. 7–44). Beijing: Science Press, Springer Nature Singapore. <https://doi.org/10.1007/978-981-13-1867-2>
- Wassenhoven, L. C. (2019). Introduction, Historical Periods and Examples. In The Ancestry of Regional Spatial Planning: A Planner’s Look at History (pp. 7–44). Athens: Springer Nature Switzerland AG.
- Wilson, E., & Piper, J. (2010). Spatial planning, climate change and sustainable development. In J. Glasson (Ed.), Spatial Planning and Climate Change (1st ed., pp. 3–17). New York: Routledge.

Complementary References

- Abella, E. A. C., & Van Westen, C. J. (2007). Generation of a landslide risk index map for Cuba using spatial multi-criteria evaluation. *Landslides*, 4(4), 311–325. <https://doi.org/10.1007/s10346-007-0087-y>
- Acuto, F. (2005). The Materiality of Inka Domination: Landscape, Spectacle, Memory, and Ancestors. In *Global Archaeological Theory* (pp. 211–235). Boston: Springer, Boston, MA. https://doi.org/https://doi.org/10.1007/0-306-48652-0_14
- Adams, V. M., Álvarez-romero, J. G., Capon, S. J., Crowley, G. M., Dale, A. P., Kennard, M. J., Pressey, R. L. (2017). Making time for space: The critical role of spatial planning in adapting natural resource management to climate change. *Environmental Science and Policy*, 74(May), 57–67. <https://doi.org/10.1016/j.envsci.2017.05.003>
- Castillo Butters, J. L. (2004). *Moche Politics in the Jequetepeque Valley: A Case for Political Opportunism*. Lima.
- Chepstow-Lusty, A.; Frogley, M.; Bauer, B.; Leng, M.; Boessenkool, K.; Caarcaillet, C.; Ali, A.; Gioda, A. 2009 Putting the rise of the Inca Empire within a climatic and land management context. *Climate of the Past*, 5 (3). 375-388.
- Congreso de la República. Ley N° 30754: Ley Marco Sobre Cambio Climático (2018). Perú: El Peruano.
- Davoudi, S., Crawford, J. & Mehmood, A. (2009). *Planning for Climate Change. Strategies for Mitigation and Adaptation for Spatial Planners*. Earthscan.
- Di Gregorio, A., & Jansen, L. J. M. (2005). Definitions. In *Land Cover Classification System Classification concepts and user manual Software version (2) (Environmen)*. Rome: Food and Agriculture Organization of the United Nations. Retrieved from <http://www.fao.org/3/y7220e/y7220e00.htm#Contents>
- Enemark, S., Williamson, I., & Wallace, J. (2005). Building modern land administration systems in developed economies. *Journal of Spatial Science*, 50(2), 51–68. <https://doi.org/10.1080/14498596.2005.9635049>

- Jenkins, D. (2001). A Network Analysis of Inka Roads, Administrative Centers, and Storage Facilities. *Ethnohistory*, 48(4), 655–687. <https://doi.org/10.1215/00141801-48-4-655>
- Keatinge, R. W., & Day, K. C. (1973). Socio-Economic Organization of the Moche Valley, Peru, During the Chimu Occupation of Chan Chan. *Journal of Anthropological Research*, 29(4), 275–295.
- Longo Minnolo, A., Bruneo, D., Panarello, A., Giacobbe, M., Mulfari, D., Tapas, N., ... Puliafito, A. (2018). An IoT service ecosystem for Smart Cities: The #SmartME project. *Internet of Things*, 5, 12–33. <https://doi.org/10.1016/j.iot.2018.11.004>
- Morphet, J. (2011). *Spatial Planning and Governance: Literature Review*. The RTPi Library Series. New York: Routledge.
- Noble, B., & Nwanekezie, K. (2017). Conceptualizing strategic environmental assessment: Principles, approaches and research directions. *Environmental Impact Assessment Review*, 62, 165–173. <https://doi.org/10.1016/j.eiar.2016.03.005>
- Van der Molen, P. (2004). Good administration of land in Europe. In *Proceedings of the UN - FIG and PC IDEA interregional special forum: The development of land information policy in the Americas, Aguascalientes Mexico, 26-27 October 2004*. 14 p. Aguascalientes, Mexico: International Federation of Surveyors (FIG).
- Wernke, S. A. (2006). The Politics of Community and Inka Statecraft in the Colca Valley, Peru. *Latin American Antiquity*, 17(2), 177–208.
- Wilson, E & Piper, J (2010). *Spatial planning and climate change (The natural and built environment)*. Routledge.
- Zhou, X., Lu, X., Lian, H., Chen, Y., & Wu, Y. (2017). Construction of a Spatial Planning system at city-level: Case study of “integration of multi-planning” in Yulin City, China. *Habitat International*, 65, 32–48. <https://doi.org/10.1016/j.habitatint.2017.04.015>

Juegos y Otros Materiales Educativos

Carrión Puelles, Naldi (2018), Land-Use Typology Playwood Puzzels

Carrión Puelles, Naldi (2018), National Policies Playwood Puzzels

IX. Soporte de Laboratorio

Programa Mendeley

Ilwis

Minecraft

Unity

X. Lecturer

Carrión Puelles Naldi

ncarrion@esan.edu.pe