

# Chen Yile



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## Teaching and Research Areas:

Lingnan historical architecture;  
Urban morphology of Macau and Portuguese-speaking countries; Architectural heritage analysis;  
Parametric generative design

## Academic Qualifications

2020 - 2024 Ph.D. in Architecture, Faculty of Humanities and Arts, Macau University of Science and Technology, Macau, China  
2019 - 2019 Cubical City: Discover Prague through Czech Cubism, Architectural Institute in Prague, The Czech Republic  
2018 - 2020 Master of Urban Planning and Design, Faculty of Innovation and Design, City University of Macau, Macau, China

## Teaching Experience

2025 to present Macau University of Science and Technology / Faculty of Humanities and Arts / Assistant Professor

## Representative Publications

ORCID: <https://orcid.org/0000-0002-8424-8059>

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Research Gate: <https://www.researchgate.net/profile/Yile-Chen-5>

Scopus Author ID: 57221954984

Researcher ID: AAT-5466-2021

## Journal Articles

### First author

- [1] **Chen, Y.**, Zheng, L., & Zheng, J.\* (2024). The Correlation Between Asian Port Cities and Traditional Portuguese Urban Forms Based on Map and Machine Learning Analyses. *Island Studies Journal*, Early access. <https://doi.org/10.24043/001c.118786> (SSCI, JCR-Q2, IF=1.7)
- [2] **Chen Yile**, Tang Qiang, Song Junxin, and Zheng Liang. Research on immersive scene design of Lingnan Cantonese catering space. *Packaging Engineering*, 2024, 45 (S1): 248-254.  
DOI:10.19554/j.cnki.1001-3563.2024.S1.032. (Peking University Core Journal) (Chinese published)

- [3] **Chen, Y.**, Yan, L., & Zheng, L.\* (2023). Intelligent approach to Mining cultural tourism potential areas Based on YOLOv4: insights from Macau, *Journal of Asian Architecture and Building Engineering*, 1-29. DOI: 10.1080/13467581.2023.2287211 (SCIE, A&HCI, JCR-Q3, IF=1.3)
- [4] **Chen, Y.**, Zheng, L., & Yan, L.\* (2023). Research on the intelligent generation of the spatial form of the island city historic district Based on parameterization: Taking Macau Taipa Village as an example, *Journal of Asian Architecture and Building Engineering*, 23 (3), 1094-1125. DOI: 10.1080/13467581.2023.2257274 (SCIE, A&HCI, JCR-Q3, IF=1.3)
- [5] **Chen Yile**, Zheng Liang, Zheng Jianyi\*. Research on parametric landscape sight line analysis method and its application: Taking Macau as an example. *Southern Architecture*, 2023 (1): 97-106. (Peking University core journal and CSCD, IF=1.63) (Chinese published)
- [6] **Chen Yile**, Zheng Liang. Renovation design of 36 m<sup>2</sup> economic housing in Macau Edificio do Lago. *Packaging Engineering*, 2023, 44 (S1):707. (Peking University core journal) (Chinese published)
- [7] **Chen, Y.**, Zheng, L., Song, J., Huang, L., & Zheng, J.\* (2022). Revealing the Impact of Urban Form on COVID-19 Based on Machine Learning: Taking Macau as an Example. *Sustainability*, 14(21), 14341. <https://doi.org/10.3390/su142114341> (SCIE, SSCI, JCR - Q2, IF=3.889)

Corresponding author\*

- [8] Wang, T., **Chen, Y.\***, Wei, Z., Chen, J., Fang, J., Dong, Z., & Zheng, L. (2025). Images of Architectural Landmarks Integrated into Spatial Vision Based on Urban Image Theory: A Case Study on the Wuhan Design Biennale Exhibition Space. *Buildings*, 15(4), 530. <https://doi.org/10.3390/buildings15040530> (SCIE, JCR - Q2, IF=3.1)
- [9] Yang, S., **Chen, Y.\***, Zheng, L.\*, Chen, J., Huang, Y., Huang, Y., Wang, N., & Hu, Y. (2025). Investigating and Identifying the Surface Damage of Traditional Ancient Town Residence Roofs in Western Zhejiang Based on YOLOv8 Technology. *Coatings*, 15(2), 205. <https://doi.org/10.3390/coatings15020205> (SCIE, JCR - Q2, IF=2.9)
- [10] Li, J., Lin, F., & **Chen, Y.\*** (2025). Spatio-temporal patterns of the construction and development of urban open spaces in Macau from 1889–2020. *Journal of Asian Architecture and Building Engineering*, 1–23. <https://doi.org/10.1080/13467581.2025.2458807> (SCIE, A&HCI, JCR-Q3, IF=1.3)
- [11] Huang, Y., Huang, Y.\*, **Chen, Y.\***, Yan, Y., Zheng, L., & Ying, Z. (2025). Interpretation of the Jiangnan Landscape and Countryside (Shan-Shui) Pattern: Evidence from the Classification and Spatial Form of Traditional Settlements in the Nanxi River Basin. *Buildings*, 15(3), 413. <https://doi.org/10.3390/buildings15030413> (SCIE, JCR - Q2, IF=3.1)
- [12] Tang, Q., Zheng, L.\*, **Chen, Y.\***, Chen, J., & Yang, S. (2025). Innovative Design Method for Lingnan Region Veranda Architectural Heritage (Qi-Lou) Facades Based on Computer Vision. *Buildings*, 15(3), 368. <https://doi.org/10.3390/buildings15030368> (SCIE, JCR - Q2, IF=3.1)
- [13] Li, J., Lin, F., **Chen, Y.\***, & Yang, S. (2025). Assessing and Enhancing Green Quantity in the Open Spaces of High-Density Cities: A Comparative Study of the Macau Peninsula and Monaco. *Buildings*, 15(2), 292. <https://doi.org/10.3390/buildings15020292> (SCIE, JCR - Q2, IF=3.1)
- [14] Li, J., Lin, F., Cui, H., **Chen, Y.\***, & Yang, S. (2025). Planning Strategies for Increasing the Occupancy Rate of Green Open Space Based on Urban Geographic Data in Macau: An Investigation of Ultra-High-Density Cities. *Buildings*, 15(2), 257. <https://doi.org/10.3390/buildings15020257> (SCIE, JCR - Q2, IF=3.1)

- [15] Zhang, L., **Chen, Y.\***, Zheng, L., & Zheng, R. (2025). Research on the Composition and Casting Technology of Bronze Arrowheads Unearthed from the Ruins of the Imperial City of the Minyue Kingdom. *Materials*, 18(2), 402. <https://doi.org/10.3390/ma18020402> (SCIE, JCR - Q1, IF=3.1)
- [16] Li, J., Lin, F., Cui, H., Yang, S., & **Chen, Y.\*** (2025). Urban Spatial Naturalness Degree in the Planning of Ultra-High-Density Cities: The Case of Urban Green Open Spaces in Macau. *Buildings*, 15(2), 206. <https://doi.org/10.3390/buildings15020206> (SCIE, JCR - Q2, IF=3.1)
- [17] Wang, T., **Chen, Y.\***, Huang, Y., Zheng, L., & Zhang, C. (2024). Renewal Design of Art University Campuses Using Urban Image Theory: A Case Study on the Hubei Institute of Fine Arts (HIFA). *Buildings*, 14(12), 3964. <https://doi.org/10.3390/buildings14123964> (SCIE, JCR - Q2, IF=3.1)
- [18] Tang Q., Zheng L. \*, **Chen Y.\***, Yan L. \*, Chen J. (2024) Artificial intelligence empowering museum space layout design: Insights from China. *PLOS ONE* 19(11): e0310594. <https://doi.org/10.1371/journal.pone.0310594> (SCIE, JCR - Q1, IF=2.9)
- [19] Zhou, S., Zhang, L. \*, **Chen, Y.\***, Zheng, L., Lei, N., & Zhang, J. (2024). Archaeological Excavation, Protection, and Display Engineering Design Practice: A Case Study in the Ruins of the Imperial City of the Minyue Kingdom. *Coatings*, 14(9), 1220. <https://doi.org/10.3390/coatings14091220> (SCIE, JCR - Q2, IF=2.9)
- [20] Fan, J., **Chen, Y.\***, & Zheng, L.\* (2024). Artificial Intelligence for Routine Heritage Monitoring and Sustainable Planning of the Conservation of Historic Districts: A Case Study on Fujian Earthen Houses (Tulou). *Buildings*, 14(7), 1915. <https://doi.org/10.3390/buildings14071915> (SCIE, JCR - Q2, IF=3.1)
- [21] Yan, L., Zheng, L., & **Chen, Y.\*** (2024). Landscape sightline analysis on height control of land around architectural heritage sites: Nanshan Temple and Nanping Academy in Zhangzhou, China. *Geocarto International*, 39(1). <https://doi.org/10.1080/10106049.2024.2350172> (SCIE, JCR-Q2, IF=3.3)
- [22] Li, Y., Chen, H., Mao, J., **Chen, Y.\***, Zheng, L.\*, Yu, J., ... He, L. (2024). Artificial Intelligence to Facilitate the Conceptual Stage of Interior Space Design: Conditional Generative Adversarial Network-Supported Long-Term Care Space Floor Plan Design of Retirement Home Buildings. *Applied Artificial Intelligence*, 38(1). <https://doi.org/10.1080/08839514.2024.2354090> (SCIE, JCR-Q2, IF=2.9)
- [23] Li, Y., Zhao, M., Mao, J., **Chen, Y.\***, Zheng, L.\*, & Yan, L. (2024). Detection and recognition of Chinese porcelain inlay images of traditional Lingnan architectural decoration based on YOLOv4 technology. *Heritage Science*, 12(1), 137. <https://doi.org/10.1186/s40494-024-01227-z> (SCIE, A&HCI, JCR-Q2, IF=2.6)
- [24] Huang, L., Chen, Y., & **Chen, Y.\*** (2024). Origin, development and evolution: the space construction and cultural motivations of Shi Gandang temple in Macau. *Open House International*, 49(1), 2-17. <https://doi.org/10.1108/OHI-09-2022-0234> (A&HCI, SSCI, JCR-Q3, IF=1.5)
- [25] Li, Q., Zheng, L.\*, **Chen, Y.\***, Yan, L., Li, Y., & Zhao, J. (2023). Non-destructive testing research on the surface damage faced by the Shanhaiguan Great Wall based on machine learning. *Frontiers in Earth Science*, 11, 1225585. DOI: 10.3389/feart.2023.1225585 (SCIE, JCR-Q2, IF=2.9)
- [26] Lin, H., Huang, L., **Chen, Y.\***, Zheng, L.\*, Huang, M., & Chen, Y. (2023). Research on the application of CGAN in the design of historic building facades in urban renewal—taking Fujian Putian historic districts as an example. *Buildings*, 13(6), 1478. <https://doi.org/10.3390/buildings13061478> (SCIE, JCR - Q2, IF=3.8)
- [27] Min, X., Zheng, L.\*, & **Chen, Y.\*** (2023). The floor plan design method of exhibition halls in CGAN-assisted museum architecture. *Buildings*, 13(3), 756. <https://doi.org/10.3390/buildings13030756> (SCIE, JCR - Q2, IF=3.8)

## Others

- [28] Lai, Y., Chen, J., **Chen, Y.**, Zeng, H., & Cai, J. (2025). Feedback Tracking Constraint Relaxation Algorithm for Constrained Multi-Objective Optimization. *Mathematics*, 13(4), 629. <https://doi.org/10.3390/math13040629> (SCIE, JCR - Q1, IF=2.3)
- [29] Tang Qiang, Zheng Liang, Chen Junzhang, **Chen Yile**. Research on the sustainable design model of rural industrial heritage “returning industry to agriculture” - a case study of Xida Power Plant in Shunde, Guangdong. *Furniture and Interior Decoration*, 2024, 31(12):94-99. DOI:10.16771/j.cn43-1247/ts.2024.12.016. (Peking University Core Journal) (Chinese published)
- [30] Zhang, L.; **Chen, Y.**; Zheng, L.\*; Yan, B.; Zhang, J.; Xie, A.; Lou, S. Investigating the Surface Damage to Fuzhou’s Ancient Houses (Gu-Cuo) Using a Non-Destructive Testing Method Constructed via Machine Learning. *Coatings* 2024, 14, 1466. <https://doi.org/10.3390/coatings14111466> (SCIE, JCR - Q2, IF=2.9)
- [31] Zhao, M., Li, Y., Chen, H., **Chen, Y.**, Zheng, L., Wu, Y., ... & Wang, T. (2024). Metagenomic Study of the Microbiome and Key Geochemical Potentials Associated with Architectural Heritage Sites: A Case Study of the Song Dynasty City Wall in Shou County, China. *Frontiers in Microbiology*, 15, 1453430. <https://doi.org/10.3389/fmicb.2024.1453430> (SCIE, JCR - Q2, IF=4.0)
- [32] Feng, J., Yin, J., & **Chen, Y.** (2024). Spatial evolution and influencing factors of water-town settlements in Southern China: evidence from 942 villages in Zhongshan City. *Journal of Asian Architecture and Building Engineering*, 1 - 20. <https://doi.org/10.1080/13467581.2024.2396611> (SCIE, A&HCI, JCR-Q3, IF=1.5)
- [33] Huang, L., Huang, Y., **Chen, Y.**, Lou, S., Chen, Y., & Jia, M. (2024). Application and Development of Firefighting Technologies in Industrial Heritage: Experiences and Insights from Macau. *Buildings*, 14, 2699. <https://doi.org/10.3390/buildings14092699> (SCIE, JCR - Q2, IF=3.1)
- [34] Wang Tianjia, **Chen Yile**, Zheng Liang, Luo Si’ao. Research on the evolution of architectural surface art form based on BQI quantitative index. *Packaging Engineering*, 2024, 45(S1):255-263. DOI:10.19554/j.cnki.1001-3563.2024.S1.033. (Peking University Core Journal) (Chinese published)
- [35] Yin Jianqiang, Feng Jingzhao, **Chen Yile**, Jia Mengyan. Research on rural environmental design strategies based on the concept of cultural and tourism integration: A case study of Majian Community in Zhuji City. *Packaging Engineering*, 2024, 45(S1):170-176. DOI: 10.19554/j.cnki.1001-3563.2024.S1.022. (Peking University Core Journal) (Chinese published)
- [36] Jia, M., Feng, J., **Chen, Y.**, & Zhao, C. (2024). Visual Analysis of Social Media Data on Experiences at a World Heritage Tourist Destination: Historic Centre of Macau. *Buildings*, 14(7), 2188. <https://doi.org/10.3390/buildings14072188> (SCIE, JCR - Q2, IF=3.1)
- [37] Song, J., **Chen, Y.**, Zheng, L., & Tang, Q.\* (2024). The evolution of traditional ancient towns in South China: Tangjiawan Ancient Town in Zhuhai city. *Journal of Asian Architecture and Building Engineering*, 1-19. <https://doi.org/10.1080/13467581.2024.2349754> (SCIE, A&HCI, JCR-Q3, IF=1.5)
- [38] Yan, L., **Chen, Y.**, Zheng, L., & Zhang, Y. (2024). Application of computer vision technology in surface damage detection and analysis of shedthin tiles in China: a case study of the classical gardens of Suzhou. *Heritage Science*, 12(1), 72. <https://doi.org/10.1186/s40494-024-01185-6> (SCIE, A&HCI, JCR-Q2, IF=2.6)
- [39] Feng, J., **Chen, Y.**, Lou, S., & Yin, J. (2023). Research on land use pattern change and its influencing factors based on the coupling model: evidence from Zhongshan, China, *Geocarto International*, 38(1), 2280559. DOI: 10.1080/10106049.2023.2280559 (SCIE, JCR-Q2, IF=3.8)

- [40] Zheng, L., **Chen, Y.**, Yan, L., & Zhang, Y. (2023). Automatic detection and recognition method of Chinese clay tiles based on YOLOv4: a case study in Macau, *International Journal of Architectural Heritage*, DOI: 10.1080/15583058.2023.2246029 (SCIE, A&HCI, JCR-Q3, IF=2.4)
- [41] Zheng, L., **Chen, Y.**, Yan, L., & Zheng, J. (2023). The Impact of High-Density Urban Wind Environments on the Distribution of COVID-19 Based on Machine Learning: A Case Study of Macau. *Buildings*, 13(7), 1711. <https://doi.org/10.3390/buildings13071711> (SCIE, JCR - Q2, IF=3.8)
- [42] Yang, X., Zheng, L., **Chen, Y.**, Feng, J., & Zheng, J. (2023). Recognition of damage types of Chinese gray-brick ancient buildings based on machine learning—taking the Macau world heritage buffer zone as an example. *Atmosphere*, 14(2), 346. <https://doi.org/10.3390/atmos14020346> (SCIE, JCR - Q2, IF=3.11)
- [43] Zhang, L., Zheng, L., **Chen, Y.**, Huang, L., & Zhou, S. (2022). CGAN-Assisted Renovation of the Styles and Features of Street Facades—A Case Study of the Wuyi Area in Fujian, China. *Sustainability*, 14(24), 16575. <https://doi.org/10.3390/su142416575> (SCIE, SSCI, JCR - Q2, IF=3.889)
- [44] Tang Qiang, Zheng Liang, **Chen Yile**, and Chen Junzhang. Research on event architecture design based on the perspective of humanistic care: A case study of the “Round House” in Guangzhou Zinitang Art Town. *Furniture and Interior Decoration*, 2022, (07): 68-73. (Peking University core journal, IF=2.344) (Chinese published)
- [45] Tang Qiang, **Chen Yile**, Chen Junzhang, Zheng Liang. Research on the innovative design of street stall display props based on ancient Chinese storage wisdom. *Packaging Engineering*, 2022, 43(22):386-394. (Peking University core journal, IF=2.09) (Chinese published)
- [46] Zhou Shihui, Zhang Lei, Huang Lei, **Chen Yile**. Planning and design of Zhongtai (Shijing) stone cluster area. *Packaging Engineering*, 2024, 45(S1):658. (Peking University core journal, IF=2.09) (Chinese published)
- [47] Niu Liyan, Zhang Lei, Huang Lei, **Chen Yile**, and Zheng Liang. Reconstruction design of shantytowns in Linjiangmen and Weiwumen, Jianou City. *Packaging Engineering*, 2024, 45(S1):655. (Peking University core journal, IF=2.09) (Chinese published)
- [48] Zhang Lei, Zheng Liang, **Chen Yile**, Wang Yuan, Huang Lei. Growing towards the sun: Conceptual design of the ecological science observation point in Aotou Village, Wuyishan City. *Packaging Engineering*, 2024, 45(S1):656. (Peking University core journal, IF=2.09) (Chinese published)
- [49] Zheng Liang, **Chen Yile**. Design of Tanggong Temple in Tangjiawan, Zhuhai. *Packaging Engineering*, 2023, 44 (S1):706. (Peking University core journal, IF=2.09) (Chinese published)
- [50] Zheng Hongbin, Zheng Liang, **Chen Yile**. Technology fights epidemic: Design of intelligent atomization disinfection machine. *Packaging Engineering*, 2023, 44 (S1): 686. (Peking University core journal, IF=2.09) (Chinese published)

#### SCI Review or EI or ESCI

- [51] Li, Y., & **Chen, Y.\*** (2025). Analysis of Cultural Perceptions of the Intangible Cultural Heritage of Chinese Porcelain Inlay: An Investigation Based on Social Media Data. *Information*, 16(2), 124. <https://doi.org/10.3390/info16020124> (ESCI, EI Compendex, IF=2.4)
- [52] Pan, Z., **Chen, Y.**, Huang, Y., & Zheng, L. The Vernacular Cultural Landscape in Traditional Villages: Global Hotspots, Emerging Trends, and a Case Study of China’s Qilu Cultural District. *Frontiers in Earth Science*, 12, 1511292. <https://doi.org/10.3389/feart.2024.1511292> (SCIE, JCR-Q3, IF=2.0)
- [53] Li, J., Lin, F., Yang, S., & **Chen, Y.\*** (2024). Spatial Planning Strategies for Urban Ecology and Heritage Conservation in Macau: An Investigation of Ultra-High-Density Cities. *Information*, 15(12), 799. <https://doi.org/10.3390/info15120799> (ESCI, EI Compendex, IF=2.4)

- [54] Huang, Y., Xia, J., **Chen, Y.**, & Hong, J. Global Research Progress on Rural Settlement Spatial Patterns from 2000-2024: A Comprehensive Review of Hotspots, Frontiers, and Emerging Trends. *Frontiers in Earth Science*, 12, 1505570. <https://doi.org/10.3389/feart.2024.1505570> (SCIE, JCR-Q3, IF=2.0)
- [55] He, J., **Chen, Y.**, Zheng, L., & Zheng, J. (2023). Research on Wind Environment and Morphological Effects of High-Rise Buildings in Macau: An Example from the New Reclamation Area around Area Preta. *International Journal of Environmental Research and Public Health*, 20(5), 4143. <https://doi.org/10.3390/ijerph20054143> (EI Compendex-GEOBASE)
- [56] Yan, L., **Chen, Y.**, Zheng, L., Zhang, Y., Liang, X., & Zhu, C. (2023). Intelligent Generation Method and Sustainable Application of Road Systems in Urban Green Spaces: Taking Jiangnan Gardens as an Example. *International Journal of Environmental Research and Public Health*, 20(4), 3158. <https://doi.org/10.3390/ijerph20043158> (EI Compendex-GEOBASE)
- [57] Zheng, L., **Chen, Y.**, Jiang, S., Song, J., & Zheng, J. (2023). Predicting the distribution of COVID-19 through CGAN—Taking Macau as an example. *Frontiers in big Data*, 6, 1008292. DOI: 10.3389/fdata.2023.1008292 (ESCI, JCR-Q2, IF=0.51)

### Conference Papers

- [1] Wang Yinqi, **Chen Yile**, Zheng Liang. A study on the morphology and layout characteristics of ancestral halls in the traditional village of Tangjiawan, Zhuhai. *Architectural Society of China: Proceedings of the 2024 Annual Conference of the Architectural Society of China*, China Architecture & Building Press, ISBN 978-7-112-30342-7, pp. 237-243 (Chinese published)
- [2] Fang Jiaying, **Chen Yile**. Research on the revitalization and cultural survival of the Portuguese Village in Malacca. *Architectural Society of China: Proceedings of the 2024 Annual Conference of the Architectural Society of China*, China Architecture & Building Press, ISBN 978-7-112-30342-7, pp.259-264 (Chinese published)
- [3] **Chen Yile**. A preliminary study on the protection of traditional residential buildings in Macau: taking “Pátio” and “Beco” as examples. *China Urban Planning Society, People’s City, Planning Empowerment - Proceedings of the 2022 China Urban Planning Annual Conference (09 Urban Cultural Heritage Protection)*. China Urban Planning Society: China Urban Planning Society, 2023:12. DOI: 10.26914/c.cnkihy.2023.046658. (Chinese published)
- [4] **Chen Yile**, Tam Hoiian, Zheng Liang. Research on ultra-high-density urban renewal strategy based on pocket park design: A case study of the area from Rua 1 to Rua 7 in Area Preta on the Macau Peninsula. *China Urban Planning Society, People’s City, Planning Empowerment - Proceedings of the 2022 China Urban Planning Annual Conference (02 Urban Renewal)*. China Urban Planning Society: China Urban Planning Society, 2023:16. DOI: 10.26914/c.cnkihy.2023.052181. (Chinese published)
- [5] Cao Junrui, **Chen Yile**, and Zheng Liang. Study on the spatial characteristics and renewal optimization of Largo boundary in Macau. *China Urban Planning Society, People’s City, Planning Empowerment - Proceedings of the 2022 China Urban Planning Annual Conference (02 Urban Renewal)*. China Urban Planning Society: China Urban Planning Society, 2023:11. DOI: 10.26914/c.cnkihy.2023.052066. (Chinese published)
- [6] Zheng Liang, **Chen Yile**, and Chen Junzhang. Research on the application of digital technology in cultural heritage protection: A case study of Pátio do Espinho, Macau. *China Urban Planning Society, People’s City, Planning Empowerment - Proceedings of the 2022 China Urban Planning Annual*

- Conference (09 Urban Cultural Heritage Protection)*. China Urban Planning Society: China Urban Planning Society, 2023:11. DOI: 10.26914/c.cnkihy.2023.046786. (Chinese published)
- [7] Zheng Liang, **Chen Yile**, and Chen Junzhang. Study on the spatial characteristics of high-density urban road network and functional agglomeration: A case study of the North District of Macau. *China Urban Planning Society, People's City, Planning Empowerment - Proceedings of the 2022 China Urban Planning Annual Conference (05 Application of New Technologies in Urban Planning)*. China Urban Planning Society: China Urban Planning Society, 2023:12. DOI: 10.26914/c.cnkihy.2023.047548. (Chinese published)
- [8] Chen Junzhang, **Chen Yile**. Research on the protection and development paths of traditional rammed earth buildings in Zhuhai and Macau. Architectural History Branch of the Architectural Society of China, School of Architecture of Huaqiao University, *Proceedings of the Annual Conference and Academic Seminar of the Architectural History Branch of the Architectural Society of China 2022: Architectural History Research and Heritage Protection in Development*, 2022: 5. DOI: 10.26914/c.cnkihy.2022.080022. (Chinese published)
- [9] Jiang Shan, Zheng Liang, **Chen Yile**, Zheng Jianyi, Comparison analysis on typical historic cultural districts with AI machine learning technology – Taking Portuguese and Macao districts as examples. *W: XXIX International Seminar on Urban Form. ISUF 2022 Urban Redevelopment and Revitalisation. A Multidisciplinary Perspective*. 6th June – 11th September 2022, Łódź–Kraków, Kantarek A.A. (Ed.), Hanzl M. (Ed.), Figlus T. (Ed.), Musiaka Ł. (Ed.), Lodz University of Technology Conference Proceedings No. 2554, Lodz University of Technology Press, Lodz 2023, p. 576-587, ISBN 978-83-67934-03-9, DOI: 10.34658/9788367934039.46.
- [10] Chen Junzhang, **Chen Yile**, Zheng Liang, Tang Qiang, Research on the historical spatial analysis of villages based on Depthmap - A case study of Cuiwei Village in Zhuhai, *2022 Annual Meeting of the Small Town Planning Academic Committee of the China Urban Planning Society*. (Chinese published)
- [11] **Chen Yile** (April 2022). Research on the protection of Macau's water communities (Tanka) from the perspective of urban heritage. *Proceedings of City University of Macau International Symposium on Cultural Heritage Conservation*, ISBN: 978-99981-65-00-7, pp.66-73 (Chinese published)
- [12] **Yile Chen** (2021). Discussion on Urban Epidemic Prevention and Control in Chang'an City in Tang Dynasty. Editors: Piotr Lorens, Hangwelani Hope Magidimisha, and Neeanne Balamiento. *Proceedings of the 57th ISOCARP World Planning Congress: Planning Unlocked: New Times, Better Places, Stronger Communities*. Produced and published by ISOCARP (International Society of City and Regional Planners, ISBN/EAN 978-90-75524-69-7, 28 October 2021 - 11 November 2021. pp.488-511, <https://doha2021.dryfta.com/programme/discussions/sponsor-lounge/proceedings>

## Patent authorization

### Invention Patent

- [1] Zhang Lei, Huang Lei, **Chen Yile**, Zheng Liang, and Zhou Shihui. A method, system, device and medium for architectural transformation based on style migration [P]. Fujian Province: CN119338666A, 2025-01-21. (Substantive examination)
- [2] **Chen Yile**, Zheng Jianyi, Zheng Liang, Yang Xiaohong, and Feng Jingzhao. A method for identifying damage types of gray brick building exterior walls [P]. Macau: CN117636047A, 2024-03-01. (Substantive examination)

- [3] Yan Lina, Zheng Liang, **Chen Yile**, Zhang Yi, Liang Xiao, and Zhu Chun. A method and system for intelligent layout of garden roads [P]. Guangdong Province: CN116776428A, 2023-09-19. (Authorized)
- [4] Zheng Liang, **Chen Yile**. A landscape visual shed analysis method and system [P]. Guangdong Province: CN112435337A, 2021-03-02. (Authorized)

#### Utility Patents

- [5] **Chen Yile**, Zheng Liang. A smart stall [P]. Guangdong Province: CN214072347U, 2021-08-31. (Authorized)
- [6] Zheng Liang, **Chen Yile**. A containerized data center [P]. Guangdong Province: CN213818605U, 2021-07-27. (Authorized)

### **Research Grants/Projects**

#### Host

- [1] 2019-05~2019-12 China Youth Elite Project (Foundation) - 2019 Youth China Tour Guangdong-Hong Kong-Macao Greater Bay Area SDGs Project: Research on Sustainable Development of Urban Waste Recycling and Reuse in Macau
- [2] 2016-05~2017-12 2016-2017 Guangdong University Student Innovation and Entrepreneurship Training Program: A Study on the Comparison of the Current Development Status and Tourism Development and Protection of Classical Gardens in the New Era - Taking Yaozhou Site and Yuyin Garden (Yuyin Shan Fang) in Guangzhou as Examples (Grant Number: 201612623027)

#### Participation

- (1) Related to Macau region
- [3] 2023-12~2025-09 Macau Science and Technology Development Fund (FDCT), Funding Scheme for Innovation and Technology Promotion: Research and development of intelligent detection technology and equipment for damage of gray brick walls of traditional Chinese buildings in Macau (Grant Number: 0080/2023/ITP2)
- [4] 2022-04~2022-10 Macau Cultural Affairs Bureau, consulting services for the restoration of the wall next to the Ruins of Saint Paul's (Troço das Antigas Muralhas de Defesa) and the rear rammed earth wall
- [5] 2021-11~2024-02 National Social Science Foundation's special academic team project for unpopular research: Research on the interactive influence of Eastern and Western architectural cultures during the Canton System period of Guangzhou (Grant Number: 21VJXT011)
- [6] 2021-11~2022-08 Macau Cultural Affairs Bureau, research on optimizing museum accessibility services (0028/IC-DM/MFQ/2021)
- [7] 2021-11~2022-04 Macau Cultural Affairs Bureau, research on Ponte No. 8 and Ponte No. 11 in the Inner Harbour in Macau
- [8] 2021-07~2021-08 Macau Cultural Affairs Bureau, display solutions for three "Galaxy Excavated Ancient Cannons"
- [9] 2021-05~2021-11 Macau Cultural Affairs Bureau, Study of the Ponte and Related Buildings on Avenida de Demetrio Cinatti, Macau
- [10] 2020-05~2021-12 Macau Special Administrative Region Government Higher Education Fund Research Project on Prevention and Response to Major Infectious Diseases, Research on the spillover epidemic prevention buffer space in Macau based on the daily life circle of Zhuhai-Macao commuters (Grant Number: HSS-MUST-2020-9)



- [11] 2020-01~2020-12 Macau Cultural Affairs Bureau, Investigation on the current situation of “Pátio” and “Beco” in Macau and research on protection and development strategies
- (2) Other regions
- [12] 2023-12 to present Hangzhou City University Digital Rural Research Center 2023-2024 Annual Project: Generative AI to Improve Rural Agricultural Heritage Protection Methods and Theoretical Research
- [13] 2023-12~2025-11 2023 China-Portugal Joint Laboratory for Cultural Heritage Protection Science “Belt and Road” Open Project: Research on Innovative Design Methods of Lingnan Arcade Building Heritage Facade Based on Computer Vision (Grant number: SDYY2305)
- [14] 2023-09 to present Guangdong Provincial Department of Education’s key scientific research platforms and projects for general universities in 2023: Guangdong, Hong Kong, and Macau Cultural Heritage Protection and Innovation Design Team funded project (Grant number: 2023WCXTD042)
- [15] 2023-09 to present Zhejiang Provincial Philosophy and Social Sciences Planning Project: Research on the Innovative Application of Poetry-Landscape Interaction in Zhejiang Poetry Road Cultural Belt from the Perspective of Urban Historical Landscape (Grant number: 24NDQN150YBM)
- [16] 2023-07 to present Fujian social science foundation project: arrangement and research on Historical Materials of A-Mazu Architectural Images in Ming and Qing Dynasties (Grant number: FJ2023C053)
- [17] 2022-10~2024-09 Ministry of Education Industry–University Cooperation and Collaborative Education Project: Construction and Practice of First-Class Courses in Information-Based Surveying of Architectural Heritage Based on PIE Software Support (Grant number: 220902313272006)
- [18] 2021-11 to present Shunde Polytechnic 2021 Cantonese Cultural Heritage Protection Design Skills Master Studio
- [19] 2018-07~2018-08 Shandong Institute of Management and Shandong New Urbanization Research Institute: Rural Observation - Survey on College Students Returning Home during Summer Vacation. Project location: Twelve ancient villages in Xinghua Town, Fengkai County, Zhaoqing City
- [20] 2018-07~2018-08 China Labor Force Dynamics Survey (CLDS), a national project initiated by the Center for Social Survey of Sun Yat-sen University. Investigation location: Jinbao Village, Chang’an Town, Fengkai County, Zhaoqing City
- [21] 2018-01 ~ 2022-05 The 2018 Guangdong Provincial Philosophy and Social Sciences Planning Discipline Co-construction Project: Research on the Derivation and Dissemination of Cantonese Food Culture Symbols (Grant Number: GD18XYS40)
- [22] 2017-07~2017-08 Guangdong Provincial Tourism Bureau, Youth League Committee of South China University of Technology, Youth League Committee of School of Economics and Trade (School of Tourism and Hotel Management) of South China University of Technology, Guangdong Tourism Press, and Guangdong Rural Tourism Development and Upgrading Action Project Group “Summer Research Activities for College Students in Guangdong Villages”. Research location: Dongpan Village, Xicun Village, Fengkai County, and Luohong Village, Deqing County, Zhaoqing City
- [23] 2016-07~2016-08 Guangdong Folk Artists Association, School of Industrial Management of South China University of Technology, and South China University of Technology Press “Ancient Village Cultural Big Data Collection Project Based on Internet Crowdsourcing”. Project location: Tiekeng Village, Sihui City, Zhaoqing City
- [24] 2016-06~2016-07 China Labor Force Dynamics Survey (CLDS), a national project initiated by the Center for Social Survey of Sun Yat-sen University. Investigation location: Nanfeng Subdistrict, Nanfeng Town, Fengkai County, Zhaoqing City

- [25] 2016-01~2016-02 Guangdong Folk Artists Association, School of Industrial Management of South China University of Technology, and South China University of Technology Press “Ancient Village Cultural Big Data Collection Project Based on Internet Crowdsourcing”. Project location: Wentang Village, Fengkai County, Jinlin Village, Luohong Village, Deqing County, and Hewu Village, Huaiji County, Zhaoqing City

## **Construction Project Summary**

- [1] 2023-10~ Guangdong Radio and Television Network Co., Ltd. Provincial Center (Guangzhou) Computer Room Terminal Power Distribution Upgrade and Reconstruction Project, Provincial Center (Guangzhou) Computer Room on the 6th Floor of the Recording Building of the Television Station Yard, No. 331, Huanshi East Road, Yuexiu District, Guangzhou
- [2] 2023-08~ Guangzhou Branch of Gangkuan Technology (Shanghai) Co., Ltd., IT room construction project of Guangqi Honda Huangpu New Data Center, Huangpu Factory of Guangqi Honda Automobile Co., Ltd., No. 1 Guangben Road, Huangpu District, Guangzhou
- [3] 2023-08~ Guangzhou Branch of Gangkuan Technology (Shanghai) Co., Ltd., GAC Honda Development Zone Computer Room Construction Project, No. 1 Guangben Road, GAC Honda Automobile Co., Ltd. Huangpu Factory, Huangpu District, Guangzhou
- [4] 2022-11~ Dasheng Technology Co., Ltd., Guangzhou Electronic Port Project, Room 202, No. 9 Shazai North Road, Huangge Town, Nansha District, Guangzhou
- [5] 2022-04~ Dasheng Technology Co., Ltd. E2 Logistics Center IT Room Construction Phase I Project, 8th Floor, Baodi Plaza, No. 83 Pazhou Avenue, Haizhu District, Guangzhou
- [6] 2021-02~ “Zhejiang Commercial Bank Huizhou Branch (Preparatory) Weak Current Engineering Integrated Cabling System, UPS Power System, Conference System, Calling, Splicing Screen System, Computer Room Management System, Lightning Protection and Grounding System”, No. 45, Dongjiang 3rd Road, Jiangbei District, Huizhou City

## **Academic institutions and social positions**

### Special Issue Editors

- [1] 2025-2026 Buildings (SCIE, JCR-Q2) Special Issue: Practice and Application of Artificial Intelligence in Urban Decision-Making (With Dr. Yanyan Liang, Dr. Junming Chen)  
[https://www.mdpi.com/journal/buildings/special\\_issues/UZMN9BF5U7](https://www.mdpi.com/journal/buildings/special_issues/UZMN9BF5U7)
- [2] 2025-2026 Coatings (SCIE, JCR-Q2) Special Issue: New Insights into Earthen Site Conservation: Methods, Techniques, Management, and Key Case Studies (With Prof. Stephen Siu Yu Lau, Dr. Liang Zheng, Dr. Jianyi Zheng) [https://www.mdpi.com/journal/coatings/special\\_issues/IK22749J11](https://www.mdpi.com/journal/coatings/special_issues/IK22749J11)

### Chief Editor

- [3] 2020-2021 Chairman of the editorial committee of the book “*2020 Urban Construction and Prospects - Selected Papers from the Third Guangdong-Hong Kong-Macao Greater Bay Area Postgraduate Forum*” published by the Graduate Student Association of City University of Macau, ISBN : 978-99981-944-1-0
- [4] 2019-2020 Chairman of the editorial committee of the book “*Dreaming in Macau, Discussion in the Bay Area - Proceedings of the Second Guangdong-Hong Kong-Macao Greater Bay Area Postgraduate Forum*” published by the Graduate Student Association of City University of Macau, ISBN : 978-99981-944-0-3

### Editorial Board Member

- [5] 2024 to present PLOS ONE Editorial Board Member and Academic Editor

## Peer Reviewer

- [6] 2025-02 to present *Land*, published by MDPI (ISSN: 2073-445X) (SSCI)
- [7] 2025-01 to present *npj Clean Energy*, published by Nature Portfolio (Online ISSN: 3059-2232)
- [8] 2025-01 to present *International Journal of Computational Intelligence Systems*, published by Springer Nature (Online ISSN: 1875-6883) (SCIE)
- [9] 2025-01 to present *Discover Cities*, published by Springer Nature (Online ISSN: 3004-8311)
- [10] 2025-01 to present *City and Environment Interactions*, published by Elsevier (ISSN: 2590-2520) (ESCI)
- [11] 2025-01 to present *Biomimetics*, published by MDPI (ISSN: 2313-7673) (SCIE)
- [12] 2024-12 to present *Sustainability*, published by MDPI (ISSN: 2071-1050) (SCIE, SSCI)
- [13] 2024-12 to present *Encyclopedia*, published by MDPI (ISSN: 2673-8392)
- [14] 2024-12 to present *Transportation Research Part D: Transport and Environment*, published by Elsevier (Online ISSN: 1879-2340; Print ISSN: 1361-9209) (SCIE, SSCI)
- [15] 2024-12 to present *Journal of Transport Geography*, published by Elsevier (Online ISSN: 1873-1236; Print ISSN: 0966-6923) (SSCI)
- [16] 2024-11 to present *Buildings*, published by MDPI (Online ISSN: 2075-5309) (SCIE)
- [17] 2024-11 to present *Smart and Sustainable Built Environment*, published by Emerald Publishing, (ISSN: 2046-6099; Online ISSN: 2046-6102) (ESCI)
- [18] 2024-10 to present *Digital Applications in Archaeology and Cultural Heritage*, published by Elsevier (Online ISSN: 2212-0548) (Scopus)
- [19] 2024-09 to present *International Journal of Geographical Information Science*, published by Taylor & Francis Group (Print ISSN: 1365-8816; Online ISSN: 1362-3087) (SCIE)
- [20] 2024-09 to present *Journal of Environmental Management*, published by Elsevier (Online ISSN: 1095-8630) (SCIE)
- [21] 2024-09 to present *Building and Environment*, published by Elsevier (Print ISSN: 0360-1323; Online ISSN: 1873-684X) (SCIE)
- [22] 2024-07 to present *Frontiers of Architectural Research*, published by Elsevier (Online ISSN: 2095-2643) (A&HCI)
- [23] 2024-07 to present *Journal of Building Engineering*, published by Elsevier (ISSN: 2352-7102) (SCIE)
- [24] 2024-07 to present *PLOS ONE*, published by Public Library of Science, (ISSN: 1932-6203) (SCIE)
- [25] 2024-07 to present *Urban Governance*, published by Elsevier (Online ISSN: 2667-3800) (Scopus)
- [26] 2024-07 to present 2024 International Symposium on World Ecological Design
- [27] 2024-03 to present *Humanities and Social Sciences Communications*, published by Nature Portfolio (Online ISSN: 2662-9992) (SSCI, A&HCI)
- [28] 2024-03 to present *Scientific Reports*, published by Nature Portfolio (Online ISSN: 2045-2322) (SCIE)
- [29] 2023-06 to present *Frontiers in Environmental Science*, published by Frontiers Media S.A. (Online ISSN: 2296-665X) (SCIE)
- [30] 2023-05 to present *Journal of Asian Architecture and Building Engineering*, published by Taylor & Francis Group (Print ISSN: 1346-7581 Online ISSN: 1347-2852) (SCIE, A&HCI)
- [31] 2023-04 to present *Heliyon*, published by Cell Press (Online ISSN: 2405-8440) (SCIE)
- [32] 2023-01 to present *Cogent Arts & Humanities*, published by Taylor & Francis Group (Online ISSN: 2331-1983) (ESCI)
- [33] 2022-08 to present *Frontiers in Public Health*, published by Frontiers Media S.A. (ISSN : 2296-2565) (SCIE)

- [34] 2021-09 to present *International Review for Spatial Planning and Sustainable Development*, published by SPSD Press (Online ISSN: 2187-3666) (ESCI)
- [35] 2021-05 to present *International and Multidisciplinary Journal of Social Sciences*, published by Hipatia Press (ISSN:2014-3680) (ESCI)

### **Professional Qualifications**

Architectural Society of China Member

Association for Computing Machinery (ACM) Beijing SIGSPATIAL Chapter Member

World Society of Sustainable Energy Technologies (WSSET) Member

International Institute for Hakka Studies Member

Post and Telecommunications Talent Exchange Center “BIM Senior Engineer”

Post and Telecommunications Talent Exchange Center “Prefabricated Senior Engineer”