

Curriculum Vitae

Prof. Young Hoon Jo

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Department of Cultural Heritage Conservation Sciences
Kongju National University



Prof. Young Hoo Jo

Conservation Scientist
Digital Heritage Expert



Dept. of Cultural Heritage Conservation Sciences,
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Lab of Digital Conservation Solution



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EXPERIENCE

- 2015 – Present Assistant / Associate / Full Professor,
Dept. of Cultural Heritage Conservation Sciences,
Kongju National University, Republic of Korea
- 2019 – Present Expert member, ICOMOS-ISCS
- 2021 – Present Director, Digital Heritage Festa
- 2023 – Present Heritage expert member, Korea Heritage Service
- 2024 – 2025 Exhibition & Sponsor Chair, CIPA 2025 SEOUL
- 2024 – Present Editor-in-Chief, *Journal of Conservation Science*

RESEARCH INTERESTS

- Conservation science
- Digital heritage
- Condition diagnosis
- Non-destructive testing
- Digital recording & documentation
- Digital analysis & interpretation
- Digital restoration & replication
- Stone heritage conservation

EDUCATION

- 2000 – 2006 Bachelor of Science, Dept. of Cultural Heritage Conservation Sciences, Kongju National University
- 2006 – 2008 Master of Science, Dept. of Cultural Heritage Conservation Sciences, Kongju National University
- 2008 – 2011 Ph.D. of Science, , Dept. of Cultural Heritage Conservation Sciences, Kongju National University

HONORS AND AWARDS

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|--------|---|--|
| • 2022 | Minister's Award, Ministry of Culture, Sports and Tourism | <i>Contribution to the Field of Digital Heritage</i> |
| • 2022 | Mayor's Award, Gongju City | <i>Contribution to the Digital Heritage Festa</i> |
| • 2024 | Director's Award, Buyeo National Museum | <i>Contribution to the Field of Digital Heritage</i> |
| • 2025 | Director's Award, Korea Heritage Service | <i>Contribution to the Field of Digital Heritage</i> |

MUSEUM EXHIBITIONS

- Exhibited more than 20 digital conservation science contents at the National Museum
- National Chuncheon Museum (2018; 2020), National Jinju Museum (2018), National Museum of Korea (2019; 2020; 2021), National Naju Museum (2020), National Gwangju Museum (2021) National Buyeo Museum (2021; 2022), National Gyeongju Museum (2022), National Science Museum (2022; 2023; 2024)

RESEARCH ACHIEVEMENTS

| SCIE Papers | SCOPUS Papers | KCI Papers | Patents |
|-------------|---------------|------------|---------|
| 13 | 13 | 51 | 6 |

● SICE PAPERS (after 2017)

- **Y. H. Jo**, D. Kim, N. Davaadorj, 2025, Combining optical scanning and X-ray computed tomography data for modeling the internal and external geometries of cultural artifacts. *Applied Sciences*, 15, 6239.
- **Y. H. Jo**, Y. H. Kim, H. S. Lee, 2024, Three-dimensional deviation analysis and digital visualization of shape change before and after conservation treatment of historic kiln site. *Heritage Science*, 12, 76.
- **Y. H. Jo**, C. H. Lee, 2022, Weathering features of a five-story stone pagoda compared to its quarrying site in Geumgolsan Mountain, Korea. *Environmental Earth Sciences*, 81, 181.
- **Y. H. Jo**, C. H. Lee, 2022, Ultrasonic properties of a stone architectural heritage and weathering evaluations based on provenance site, *Applied Sciences*, 12, 1498.
- **Y. H. Jo**, S. Hong, S. Y. Jo, Y. M. Kwon, 2020, Noncontact restoration of missing parts of stone Buddha statue based on three-dimensional virtual modeling and assembly simulation, *Heritage Science*, 8, 1-12.
- S. H. Kim, C. H. Lee, **Y. H. Jo**, 2020, Behavioral characteristics and structural stability of the walls in the ancient Korean Royal Tombs from the sixth century Baekje Kingdom, *Environmental Earth Sciences*, 79, 1-13.
- **Y. H. Jo**, S. Hong, 2019, Three-dimensional digital documentation of cultural heritage site based on the convergence of terrestrial laser scanning and unmanned aerial vehicle photogrammetry, *ISPRS International Journal of Geo-Information*, 8, 1-14.
- **Y. H. Jo**, S. M. Lee, C. H. Lee, 2018, Material characteristics and building technique for the rammed earth wall of the 13th Korean fortress in Ganghwa, *Environmental Earth Sciences*, 71, 617.
- C. H. Lee, **Y. H. Jo**, 2017, Correlation and correction factor between direct and indirect methods for the ultrasonic measurement of stone samples, *Environmental Earth Sciences*, 76, 477.

● SCOPUS PAPERS (after 2017)

- H.R. Song, **Y.H. Jo**, 2025, Study on the color characteristics of reproduced oil paintings using a machine learning algorithm. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVIII-M-9-2025, 1395-1400.
- M.J. Kim, D.Y. Lee, C.Y. Roh, **Y.H. Jo**, 2025, Conservation and restoration of Chimi from Mireuksa Temple Site, Iksan. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLVIII-M-9-2025, 715-720.
- S. Son, **Y.H. Jo**, H.I. Gwak, H.S. Cho, K.C. Shin, 2023, A study on multi-modeling for artifact restoration. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVIII-M-2-2023, 1479-1484.
- S.H. Kim, **Y.H. Jo**, J. Song, D.S. Kim, H.S. Kim, 2023, A study on convergence modeling of cultural artifact using X-ray computed tomography and three-dimensional scanning technologies. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVIII-M-2-2023, 851-856.
- Hong, S., **Y.H. Jo**, 2021, A study on three-dimensional printing replication for usability of artifacts. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVI-M-1-2021, 309-311.
- H.R. Song, **Y.H. Jo**, 2021, Digital color reproduction and documentation of oil painting using image processing. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLVI-M-1-2021, 693-695.
- **Y. H. Jo**, J. M. Yeo, Y. T. Kim, 2020, Applying digital virtual restoration and three-dimensional sand-printing for missing parts of Rampart Walls. *TEST Engineering & Management*, 83, 4387-4394.
- S.H. Kim, C.H. Lee, **Y.H. Jo**, 2019, Digital documentation and short-term monitoring on original rampart wall of the Gyejoksanseong Fortress in Daejeon, Korea. *Economic and Environmental Geology*, 52, 169-188.
- **Y.H. Jo**, J. Kim, N.C. Cho, C.H. Lee, Y.H. Yun, D.K. Kwon, 2019, A study on planning and platform for interactive exhibition of scientific cultural heritage. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLII-2/W15-2019, 605-607.
- **Y.H. Jo**, J.Y. Kim, 2017, Three-dimensional digital documentation of heritage sites using terrestrial laser scanning and unmanned aerial vehicle photogrammetry. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLII-2/W5-2017, 395-398.

❶ KCI PAPERS (after 2019)

- J.H. Park, Y.H. Jo, E.S. Bang, C.H. Lee, 2025, Analysis of topography and wall configuration at Gongsanseong Fortress in Gongju using UAV-LiDAR survey and geographic information system. *Journal of Conservation Science*, 41, 755-770.
- N. Davaadorj, Y.H. Jo, C.H. Lee, 2025, Structural analysis of outdoor cultural heritage using 3D scanning data retopology: The three-story stone pagoda in Beomhak-ri, Sancheong. *Conservation Science in Museum*, 34, 99-112.
- D.Y. Lee, Y.H. Jo, M.J. Kim, 2025, A study on manufacturing techniques of Chimi excavated from Mireuksaji Temple using digital visualization technology. *Conservation Science in Museum*, 34, 79-98.
- S. Kim, Y. H. Jo, H. Kang, Y.G. Choi, Y.H. Cho, 2025, Study on Segmentation Modeling and Contents Utilization of X-ray CT for the Daehan Rifle No. 7. *Journal of Conservation Science*, 41, 279-290.
- H. Song, Y. Jung, Y. H. Jo, Y.S. Shin, 2024, Invisible Condition Diagnosis and Character Decipherment of Traditional Ancient Maps Using Multispectral Imaging: Map of the Eight Provinces of the Eastern State (Dongguk Paldojido). *Conservation Science in Museum*, 32, 101-116.
- S. H. Yu, Y. H. Jo, M. K. Yun, Y. G. Chun, 2023, Study on the digital reassembly of Yoni Monument excavated from Cella of Hong Nang Sida, Lao PDR. *Journal of Conservation Science*, 39, 746-756.
- Y. H. Kim, Y. H. Jo, 2023, Study on influence factor analysis and optimal methodology for color reproduction of digital photography of painted cultural heritage. *Journal of Conservation Science*, 39, 621-631.
- J. Kim, Y.H. Jo, J.H. Ryu, S.B. Hwang, N. Davaadorj, 2023, Basic reexamination on of stone basin inscription in Buyeo, South Korea, using digital visualization technology. *Wooden Documents and Inscriptions Studies*, 30, 163-184.
- Y.H. Jo, S. Son, J. Kim, Y.R. Lee, J. Lee, 2023, A Study on making technique of clay buddha pedestal in Bonuiri, Cheongyang, using three-dimensional visualization technology. *Journal of Asian Art History*, 16, 151-169.
- H.R. Song, Y.H. Jo, 2022, A study on digital color reproduction for recording color appearance of cultural heritage. *Journal of Conservation Science*, 38, 154-165.
- D.S. Kim, Y. H. Jo, I. K. Huh, S. M. Byun, 2022, Convergence modeling and reproduction of a Bigyeokjincheolloe (bomb shell) based on three-dimensional scanning and γ-ray radiography. *Journal of Conservation Science*, 38, 55-63.
- Y. H. Jo, J. Kim, Y. H. Yun, N.C. Cho, C. H. Lee, 2021, Developing experiential exhibitions based on conservation science content of bronze mirror, *Journal of Conservation Science*, 37, 362-369.
- Y.H. Jo, D.K. Kwon, J. Ahn, K. Ko, 2021, A study on the digital decipherment of the Goguryeo Stele in Chungju. *Korean Journal of Heritage : History and Science*, 54, 240-253.
- H. Choi, S. Hong, Y.H. Jo, N.C. Cho, 2021, Three-dimensional digital recording of the conservation treatment and form analysis of an iron ring pommel. *Conservation Science in Museum*, 25, 85-94.
- Y. H. Jo, J. Lee, 2021, Three-dimensional digital-mold modeling and sand-printing for replication of bronze mirror. *Journal of Conservation Science*, 37, 13-21.
- H. Yang, C.H. Lee, Y.H. Jo, 2020, Stability and damage evaluation of the Buddha Triad and 16 Rock-Carved Arhat Statues at Seongbulsu Temple in Cheonan, Korea. *Korean Journal of Heritage : History and Science*, 53, 78-99.
- Y. H. Jo, H. Song, S. Lee, 2020, Significance of three-dimensional digital documentation and establishment of monitoring basic data for the Sacred Bell of Great King Seongdeok. *Conservation Science in Museum*, 24, 55-74.
- G. Lee, Y. H. Jo, S.M., Lee, C.H. Lee, K. Lee, 2020, Structural safety evaluation of Tomb of King Muryeong in Tumulus of Songsan-ri through finite element analysis. *Journal of the Korean Association for and Spatial Structures*, 20, 63-70.
- Y. H. Jo, J. H. Park, E. Hong, W. Han, 2020, Three-dimensional digital documentation and accuracy analysis of the Chojin Lama Temple in Mongolia. *Journal of Conservation Science*, 36, 264-274.
- Y. H. Jo, D.K. Kwon, K. Ko, 2020, Application and consideration of three-dimensional scanning technology for decipherment of Goguryeo Stele in Chungju. *The Journal of Korean Ancient History*, 98, 9-46.
- Y. H. Jo, S. Hong, 2019, Application of three-dimensional scanning, haptic modelling, and printing technologies for restoring damaged artifacts. *Journal of Conservation Science*, 35, 71-80.