

HYEOK HWEON “H. H.” KANG

Curriculum vitae

Department of East Asian Languages and Cultures, Washington University in St. Louis
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EMPLOYMENT

- 2021–pres. Assistant Professor of East Asian Languages and Cultures, Washington University in St. Louis
- 2020–21 D. Kim Foundation Postdoctoral Fellow, Department of the History of Science and Technology, Johns Hopkins University

EDUCATION

- 2020 Ph.D., History and East Asian Languages, Harvard University
- 2013 B.A., History and Music, *summa cum laude*, Phi Beta Kappa, Emory University

PUBLICATIONS

Book Manuscript

- in progress *Artisanal Heart: Craft, Engineering, and the Culture of Knowledge in Early Modern Korea*

Peer-Reviewed Articles

- accepted “The Measures of Early Modern Technology: Europe, East Asia, and the Interpretive Flexibility of Smoothbore Ballistics,” *Journal of World History* (accepted, pending minor revisions)
- in press “Kingpins at Court: Contraband Diplomacy between Korea, Japan, and Tsushima, 1607–1671,” *The Journal of Asian Studies* (in press)
- in press “Korean Chronicles under a Microscope: Towards a Digital Infrastructure in Premodern Korean Studies,” with Michelle Suh, *Korean Studies* (in press)
- 2023 “How Network Analysis Uncovers International Networks of Smuggling History: Criminals in Nagasaki, Japan circa 1667,” *Journal of Cultural Analytics* 8:1 (February 2023): 1–20
- 2023 “Reverse Engineering as History and Method: The Portuguese *Espingarda* in Chosŏn Korea,” *History and Technology* 38:2-3 (2023): 144–66
- 2022 “Cooking Niter, Prototyping Nature: Saltpeter and Artisanal Experiment in Korea, 1592–1635,” *Isis: A Journal of the History of Science Society* 113:1 (March 2022): 1–21
- 2014 “A Korean Military Revolution? Parallel Military Innovations in East Asia and Europe,” with Tonio Andrade and Kirsten Cooper, *Journal of World History* 25:1 (March 2014): 51–84

- 2013 “Big Heads and Buddhist Demons: The Korean Musketry Revolution and the Northern Expeditions of 1654 and 1658,” *Journal of Chinese Military History* 2:2 (2013): 127–89

Peer-Reviewed Chapters

- 2022 “Difference in an Age of Parity: Technology and Global Military History,” in *The Military Revolution and Revolutions in Military Affairs*, ed. Mark C. Fissel (Berlin: De Gruyter, 2022), 29–64
- 2021 “Nature of *Narye*: Sound, Spectacle, and the Politics of Performance in Fifteenth-Century Korea, 1392–1592,” in *Routledge Handbook of Asian Music: Cultural Intersections*, ed. Tong Soon Lee (London: Routledge, 2021), 150–73

Review Essays and Book Reviews

- 2022 Review of *Technical Knowledge in Early Modern Japan*, eds. Erich Pauer and Ruselle Meade. *Japan Review* 37 (2022): 190–2
- 2016 “In Pursuit of Truth and Justice: Legal History of Chosŏn Korea and the State of the Field,” *Seoul Journal of Korean Studies* 29:1 (June 2016): 219–27

Other Scholarly Publications

- 2022–pres. “Silloker,” database and search engine for Korean historical chronicles, June 1, 2022–present, silloker.com. Co-designed with Michelle Suh
- 2022 “The Korean Snap Matchlock: A Global Microhistory,” *Bulletin of the American Society of Arms Collectors* 124 (2022): 30–41
- 2015 “Climate Change’s Fatal Synergy,” *Sense & Sustainability*, May 11, 2015
- 2014 “The Little Ice Age: Heterogeneity of Impact and Japan’s Success Story?,” *Sense & Sustainability*, December 5, 2014
- 2014 “The Little Ice Age: History of Climate-Induced Crisis in Europe and East Asia,” *Sense & Sustainability*, October 15, 2014

Works in Progress

- under review “Tactics Before Technics: Korean Perception of Japanese Wartime Technology, 1592–1598,” under review
- in progress “A Comparative History of Military Technology in Early Modern Europe and East Asia,” for *A Cultural History of Technology in the Age of Encounters (1450–1650)*, ed. Raffaele Pisano (London: Bloomsbury)
- in progress “Global Cooling, Floor Heating Stones, and the Rhetoric of Efficient Design in Eighteenth-Century Korea,” for a special issue to be considered for *History of Science*, eds. Jung Lee and Eugenia Lean
- in progress “Making for the Home: Poisons, Taboo, and Women’s Knowledge in the Late Chosŏn,” conference paper undergoing revision into an article manuscript

AWARDS, GRANTS AND FELLOWSHIPS***External***

- 2022–23 ACLS Fellowship, American Council of Learned Societies
- 2020–22 Mellon Fellowship of Scholars in the Humanities, Stanford University (2-3 years; declined to accept the D. Kim Foundation Postdoctoral Fellowship)
- 2020–21 Postdoctoral Fellowship, D. Kim Foundation for the History of Science and Technology in East Asia
- 2021 Turriano ICOHTEC Book Prize, Juanelo Turriano Foundation and the International Committee for the History of Technology
 Selected from “original book-length works in any of the official ICOHTEC languages (English, French, German, Russian or Spanish) in the history of technology”
- 2021 ICAS Book Prize (2019–2020), Best Dissertation in the Humanities in English, International Convention of Asia Scholars
- 2021 Finalist, WHA Dissertation Prize, World History Association
- 2021 Northeast Asia Council Korean Studies Grant, Association for Asian Studies
- 2019–20 Mellon/ACLS Dissertation Completion Fellowship, ACLS
- 2019–20 Dissertation Fellowship, D. Kim Foundation for the History of Science and Technology in East Asia (declined to accept the Mellon/ACLS DCF)
- 2017–19 Korea Foundation Fellowship for Graduate Studies, Korea Foundation
- 2018 Joan Cahalin Robinson Prize, Society for the History of Technology
- 2018 Russell F. Weigley Graduate Travel Grant, Society for Military History
- 2017 Bernadotte E. Schmitt Research Grant, American Historical Association
- 2012 World History Association / Phi Alpha Theta Student Paper Prize (undergraduate division)
- 2012 Gold Medal, Chinese Speech Competition, Confucius Institute (full ride to Nanjing University for a master’s degree, declined)

Internal**Washington University in St. Louis**

Seeding Projects for Enabling Excellence and Distinction (SPEED) in Research (2022–23); Roland Grimm Travel Award (2023); Summer Faculty Research Grant (2023); Internal Nominee for the National Endowment for the Humanities (NEH) Summer Stipend Competition (2023); Global Qing and Its Legacies Grant (2022)

Harvard University

Asia Center Winter Research Travel Grant (2017); Derek Bok Certificate of Distinction in Teaching (4 times) (2016–17); Nominee for Star Family Prize for Excellence in Advising (2016); Korea Institute Summer Research Grant (3 times) (2014–16); Sheldon Traveling Fellowship (declined to accept Korea Foundation Fellowship) (2016–17); Y.B. Min University Fellowship

(2014–16); Fairbank Center for Chinese Studies Summer Travel Grant (2015); Reischauer Institute for Japanese Studies Summer Language Grant (2014); Institute for Quantitative Social Sciences Research Grant (2014); Nominee for Presidential Scholar (2013)

Emory University

Charles E. Shepard Scholar for Graduate Studies (2013); Burt and Betty Shear Award (one of two seniors selected from a graduating class of 1,400) (2013); Matthew A. Carter Citizen-Scholar Award (2013); George Cuttino Scholarship for Research Overseas (2012); Clio Prize for Best Junior/Senior Colloquium Paper (2012); Woodruff Library Undergraduate Research Award (2012); Fox Center for Humanistic Inquiry Fellowship (2011–13); Third Place in Original Music Composition, Arts Showcase (2011); William-Lemonds Grant (2011); Dewey-Hinton Scholarship (2011); Emory Scholars Summer Study Abroad Award (2011); Scholarly Inquiry and Research Summer Research Grant (3 times) (2010–12); Scholarly Inquiry and Research Conference Grant (2 times) (2010–11); Center for Creativity and Arts Grant (3 times) (2010–12); Best Presentation Award, Scholarly Inquiry and Research Symposium (Humanities and Arts Category) (2 times) (2010–12); Kemp Malone Scholar (full scholarship) (2009–13)

PRESENTATIONS

Invited Talks

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| 2023 | “Artisanal Heart: The Vernacular Engineers of Early Modern Korea,” Korean Humanities Speaker Series, the Center for East Asian Studies, Stanford University |
| 2022 | “Reading Artisanal Knowledge from 16 th century Korea,” Cornell Classical Chinese Colloquium, the Mario Einaudi Center for International Studies, Cornell University |
| 2022 | “Early Modern Science as Seen Through Late Chosŏn Military Workshops: Focusing on Niter Knowledge” (조선후기 군영공방으로 보는 근세 과학사: 염초 지식을 중심으로) (in Korean), Sungkyunkwan Seminars in Historical Studies, Sungkyunkwan University |
| 2022 | “The Artisanal Heart: Craft and Experimentalism in Early Modern Korea,” Minnesota Colloquium for the History and Philosophy of Science, Technology, and Medicine, University of Minnesota |
| 2022 | “Artisan Squad: The Experimental Workshop in Early Modern Korea,” Aftermath of the East Asian War of 1592–1598 Webinar Series, Autonomous University of Barcelona |
| 2021 | “Prototyping Niter: Experimentalism and Technological Practice in the Late Chosŏn Military Workshops” (조선후기 군영공방에서의 실험과 기술적 실천) (in Korean), Science in Historical Perspective, Seoul National University |
| 2021 | “The East Asian War: A Technological History,” for undergraduate class on Korea History through Film, Harvard University |
| 2021 | “Reverse-Engineering the Gun: The Portuguese <i>Espingarda</i> in Chosŏn Korea,” American Society of Arms Collecting, Prescott |
| 2021 | “Boiling Saltpeter: Espionage, Experiment, and Vernacular Science” (염초 |

달이기: 염탐, 시험 그리고 조선후기의 버나클러 과학) (in Korean), Chosŏn History of Science Seminar Series, Seoul National University

- 2015 “Technologies in Korean History: A Broad Sweep,” training session for interns at the MIT International Science and Technology Initiatives (MISTI), Massachusetts Institute of Technology

At Conferences and Workshops

- 2023 “Military Technology as Literacy: Technical Knowledge in Korean Military Workshops,” conference on Mastering of Materialities: Resources and Technology in Post-Imjin East Asia,” Autonomous University of Barcelona
- 2023 “The Codification of Technical Knowledge in Korean Military Workshops, 1592–1635,” the 16th International Conference on the History of Science in East Asia, Frankfurt
- 2023 “Silloker: Towards a Digital Infrastructure for Korean Historical Chronicles,” conference on Tools of the Trade: The Way Forward, Harvard University
- 2022 “Vernaculars of Making: Artisanal Literacy through Image and Script,” History of Science Society annual meeting, Chicago
- 2022 “From Envoys to Army Shops: Saltpeter and the Infrastructure of Craft Knowledge in Late Chosŏn Korea,” Association for Asian Studies annual meeting, Honolulu
- 2022 “Silloker: Towards a Digital Turn in Premodern Korean Studies,” workshop on Digital Humanities and Korean Studies, University of Copenhagen
- 2022 “Making for the Home: Poisons, Taboo, and Women’s Knowledge in 18th-Century Korea,” Modern Language Association annual meeting, Washington
- 2022 “Cooking Niter, Prototyping Nature: Saltpeter and Artisanal Experiment in Korea, 1592–1635,” working group on Craft, Technology, and Material Culture in Early Modern Asia, held online by the Consortium for History of Science, Technology, and Medicine (CHSTM)
- 2021 “My Humble Explanation of Things (*Somun sasŏl*): A Source Reading,” 4th New Frontiers in Premodern Korea Studies, held online by the Korea Institute, Harvard University
- 2021 “The Politics of Technology Choice: The Gun Debate in Chosŏn Korea,” workshop on The Multifarious Reception of the Harquebus, held online by the Autonomous University of Barcelona
- 2021 “With an “Artisanal Heart”? How Korean Scholars Tinkered with Pneumatics and Natural Philosophy in the Early Nineteenth Century,” History of Science Society annual meeting, New Orleans, held online due to COVID-19
- 2021 “Out of Thick Air: Western Pneumatics in Nineteenth Century Korea,” the Inaugural Conference for the Korean Studies Research Network, Iowa, held online due to COVID-19
- 2021 “Collaborating Hands: Artisan, Scholar, and New Technological Knowledge in Sixteenth Century Korea,” the 26th International Congress of History of

- Science and Technology, Prague, held online due to COVID-19
- 2020 “Cooking Niter in Korea: Espionage, Experiment and Vernacular Science,” working group on Early Modern Science, held online by the Consortium for History of Science, Technology, and Medicine (CHSTM)
- 2019 “A Wheellock Landmine: Artisan, Scholar and Technological Knowledge in Seventeenth Century Korea,” Society for the History of Technology annual meeting, Milan, Italy
- 2019 “The Workshop: Knowledge, Technology and the Military in Chosŏn Korea,” workshop hosted by the D. Kim Foundation, Seoul
- 2019 “Matériel Matters: Trade and Diplomacy across the Korea Strait,” conference hosted by The World Consortium of Korean Studies, Leiden University
- 2018 “Divine Machine? Korea’s Reception of the Gun,” Society for History of Technology annual meeting, St. Louis
- Winner of the Joan Cahalin Robinson Prize for the best presented paper
- 2018 “Divergence in an Age of Parity: Musketry and Marksmanship in Western Europe and East Asia,” Society for Military History annual meeting, Louisville
- 2018 “Accurizing the Gun: Tactics and Technologies in East Asia,” Chinese Military History Society annual meeting, Louisville
- 2017 “Gunrunning Diplomacy: Military Trade across the Korea Strait,” Association for Asian Studies annual meeting, Toronto
- 2015 “Performing Gunpowder: The Technology of Court Rituals in Chosŏn Korea,” Harvard East Asia Society Graduate Student Conference, Harvard University
- 2013 “The Troubadour’s Tournament: From Drilling Manuals to Narrative Songs in Late Chosŏn Korea,” Association for Asian Studies annual meeting, San Diego
- 2013 “Performing Military Knowledge in Korean Armies: P’ansori and the Late Chŏson Military and Social Reforms,” 42nd International Council for Traditional Music, Shanghai
- 2011 “What’s Driving Fusion *Haegŭm*? New Accessibility and the Question of Authenticity,” Society for Ethnomusicology Southeast and Caribbean Chapter (SEMSEC) meeting, Nashville
- 2011 “Managing Historicity and Accessibility: *Nanyin* of Quanzhou” Association for Chinese Music Research Meeting, Association for Asian Studies annual meeting, Philadelphia

Campus Talks

- 2022 “Minimum Viable Product (MVP) for Digital Humanities,” graduate seminar on East Asian Print Culture and Society: Women in Print, Washington University in St. Louis
- 2021 “Crafting Niter, Imitating Nature: Saltpeter and Artisanal Experiment in Seventeenth Century Korea,” History of Science, Medicine, and Technology Colloquia, Johns Hopkins University, held online due to COVID-19

- 2019 “Military Artisanry: A Way of Making and Knowing,” working group on Korean Studies, Harvard University
- 2017 “Korea’s Gunpowder Army: War, Technology, and Transformation,” for undergraduate class on Traditional Korea, Harvard University
- 2017 “Digital Humanist as Historical Detective: Network Analysis of Arms Trafficking between Japan and Korea, 1677,” series on Digital Humanities, hosted by the Harvard-Yenching Library
- 2015 “Closing of the Steppes? Russo-Qing Conflicts in World-Historical Perspective,” working group on Central Eurasia, Harvard University

TEACHING

Washington University in St. Louis

- Instructor Guns, Tobacco, and Sweet Potato, A History of Material Culture (scheduled for Fall 2024)
- Instructor Imagined Pasts: Traditional Korea through Film (scheduled for Fall 2024)
- Instructor Nature, Technology, and Medicine in Korea (Spring 2022, Spring 2023)
Founded the student-run journal *WashU Ventures in Korean Studies* whose first two volumes are available as paperback on Amazon
- Instructor Korean Civilization (Spring 2023)
- Instructor Kitchen, Studio, Factory: Making in East Asia (Fall 2021, Spring 2022)
Featured in *The Ampersand*, “New course explores craft cultures in East Asia,” June 15 2022

Harvard University

- Assistant Traditional Korea, by Sun Joo Kim (Spring 2017)
- Assistant Introduction to the Study of East Asia: Issues and Methods, by David Howell (Spring 2017)
- Assistant Korean History Through Film, by Sun Joo Kim (Fall 2016)
- Assistant Classical Chinese Ethical and Political Theory, by Michael Puett (Fall 2016)
- Assistant The Two Koreas, by Carter J. Eckert (Spring 2016)

PROFESSIONAL SERVICE

To the Discipline

- Distinguished Speaker, Association for Asian Studies Northeast Asia Council (NEAC)
Distinguished Speakers Bureau, 2024–27 [*scheduled*]
- Best Article Prize Committee, Maurice Daumas Prize, International Committee for the History of Technology (ICOHTEC), 2022
- Best Presentation Prize Committee, Joan Cahalin Robinson Prize, Society for the History of Technology, 2021

Environmental History Fellow, *Sense & Sustainability* (501C3 Non-profit), 2013–15

Reviewing and Consulting

Editorial Board (Consulting Editor), *Journal of the History of Ideas*, 2022–present

Consultant, “Globalization and Creation of Korean Historical Contents through Gamification,” Economics, Humanities and Social Research Council, South Korea, 2022

Manuscript referee for journals, *Technology & Culture*, *Isis: A Journal of the History of Science Society*, and *Asian Studies Review*

Contributor, “About the Cover,” *Harvard Journal of Asiatic Studies* 77.1 (June 2017), 2017

Events Organized or Coordinated

Co-organizer, with Sau-Yi Fong, “Military Crisis and Early Modern Entanglement,” panel at the 16th International Conference on the History of Science in East Asia, Frankfurt, Germany, 2023

Co-organizer, with Eric M. Gurevitch, “Vernacular Sciences in Asia,” panel at the History of Science Society annual meeting, Chicago. Sponsored by the Forum for the History of Science in Asia, 2022

Organizer, “Science and Artisanal Knowledge: Towards a Global History,” panel at History of Science Society annual meeting, New Orleans, held online due to COVID-19, 2021

Coordinator, “1st Annual Joint Atlantic Seminar for the History of East Asian Science, Technology, and Medicine (JAS-EASTM),” conference hosted by Johns Hopkins University, held online due to COVID-19, 2021

Graduate Coordinator, “Making History: Technologies of Production in East Asia’s Past,” workshop at Harvard University, 2019

Organizer, “Assimilating the Gun: Military Technology in the Long Sixteenth Century,” panel at the Society for the History of Technology annual meeting, St. Louis, 2018

Organizer, “The Frontiers of Global Military History: Military Technology and Inner and East Asian Warfare,” panel at the Society for Military History annual meeting, Louisville, 2018

Organizer, “Smugglers, Castaways and Sailors: Informal Diplomacy in Early Modern East Asia,” panel at the annual meeting of the Association for Asian Studies, Toronto, 2017

Graduate Coordinator, “Receptions, Transformations and Innovations: Transcultural Discourses in Korean Art,” conference at Harvard University, 2016

University and Department Service

Co-convenor, with Jianqing Chen, EALC Public Lecture & Brown Bag Series, Department of East Asian Languages and Cultures, Washington University in St. Louis, 2021–present

Member, Graduate Committee, Department of East Asian Languages and Cultures, Washington University in St. Louis, 2021–present

Member, “Science in the Public Square,” project funded by the Incubator for Transdisciplinary Futures, Washington University in St. Louis, 2021–22

Co-founder, with Graeme Reynolds, Korean Studies Working Group, Harvard University,

2017–18

Resident Tutor, Lowell House, Harvard University, 2014–16

Nominated for the 2016 Star Family Prize for Excellence in Advising

Vice-Chair of Fellowships, Lowell House, Harvard University, 2014–16

Graduate Fellow (Cultural & Intellectual Fellow), Dudley House, Harvard University, 2013–15

STUDIES ABROAD

Jangseogak Archives, Academy of Korean Studies, Seoul, Korea
Intensive Hanmun (Classical Chinese) Workshop, Summer 2016

National Taiwan University, Taipei, Taiwan
International Chinese Language Program, Summer 2015

Princeton in Ishikawa, Ishikawa, Japan
Advanced Japanese Language Program, Summer 2014

Kyujanggak Archives, Seoul National University, Seoul, Korea
Intensive Hanmun (Classical Chinese) Workshop, Summer 2012, 13
Visiting Student Fellow, 2012

Quanzhou Normal University, Fujian, China
Visiting Student Fellow, 2011

University of Oxford (Regent's Park College), Oxford, UK
Program in Renaissance History, Summer 2011

RESEARCH LANGUAGES

Korean (native); Chinese, Japanese, Spanish (advanced reading, speaking, and writing)

Literary Sinitic/Classical Chinese, Manchu (reading proficiency)

PROFESSIONAL MEMBERSHIPS

American Historical Association

Association for Asian Studies

History of Science Society

Society for the History of Technology

International Committee on History of Technology

Phi Beta Kappa, honor society (2012 induction)

Phi Alpha Theta, history honor society (2012 induction)

Phi Eta Sigma, honor society (2009 induction)