

Bibliographic Note and Abbreviations

The main depositories of Copán archival materials are found in the United States and in Honduras. Copán records are mainly found in the following collections, which are abbreviated for this volume.

PMAE Archives

Most of the records, documents, and photographs relating to the site before it came under the authority of the Instituto Hondureño de Antropología e Historia (IHAH) in 1952 are housed at the Peabody Museum of Archaeology and Ethnology (PMAE) Archives of Harvard University, Cambridge, Massachusetts.

CAER Central American Expedition (Honduras, Guatemala) Records 1891–1901, Peabody Museum of Archaeology and Ethnology Archives (PMAE Archives), Harvard University, Cambridge, Massachusetts. Collection abbreviated: CAER, accession number, box.folder number.

Bowditch Papers

Charles P. Bowditch (1842–1921), Papers, 1869–1918, Peabody Museum of Archaeology and Ethnology Archives (PMAE Archives), Harvard University, Cambridge, Massachusetts. Collection abbreviated: Bowditch Papers, #41-7, box.folder number.

Putnam Records

Peabody Museum Director Records—Frederic W. Putnam (1839–1915), 1870–1925, Peabody Museum of Archaeology and Ethnology Archives (PMAE Archives), Harvard University, Cambridge, Massachusetts.

CIW Records

Carnegie Institution of Washington (CIW) Department of Archaeology Records, 1914–1955, n.d., Peabody Museum of Archaeology and Ethnology Archives (PMAE Archives), Harvard University, Cambridge, Massachusetts. Collection abbreviated: CIW Records, old cabinet location number, #folder number.

Because a number of American archaeologists who worked in the Maya region during the first part of the twentieth century also worked in or had close connections with the American Southwest, some archival documents related to Copán can be found in Santa Fe, New Mexico, at the following repositories:

LAMNM

Library and photographic archives of the Laboratory of Anthropology, Museum of Indian Arts and Culture, Museum of New Mexico, Santa Fe.

PGMNM

Photographic archives of the Palace of the Governors, Museum of New Mexico, Santa Fe.

Finally, most documents related to the site after 1952 can be found in Honduras, in the IHAH archives, either in Copán Ruinas or in Tegucigalpa.

CRIA Archives

Archives at the Centro Regional de Investigaciones Arqueológicas (CRIA), Instituto Hondureño de Antropología e Historia (IHAH), Copán Ruinas, Honduras.

IHAH Tegu. Archives

Central archives of the Instituto Hondureño de Antropología e Historia (IHAH), Tegucigalpa, Honduras.

References and Bibliography

The following section contains references called out in the text as well as sources consulted in the preparation of this report that are important for understanding the history and conservation of the Hieroglyphic Stairway and the site of Copán. Note that brackets indicate extrapolated information.

- Agurcia Fasquelle, Ricardo. 1996. Rosalila, el corazón de la Acrópolis el templo del Rey-Sol. *Yaxkin* 14, nos. 1–2: 5–18.
- Anagnostidis, K., A. Economou-Amilli, and M. Rous-somoustakaki. 1985. Epilitic and chasmolitic microflora (Cyanophyta, Bacillariophyta) from marbles of the Parthenon (Acropolis, Athens, Greece). *Nova Hedwigia* 58: 227–81.
- Anagnostidis, K., and J. Komárek. 1988. Modern approach to the classification system of cyanophytes, 5–Oscillatoriales. *Archiv für Hydrobiologie Supplementband* 80: 1–4, *Algological Studies* 50–55: 327–472.
- Andrews, E. Wyllys, and William Leonard Fash, eds. 2005. *Copán: The history of an ancient Maya kingdom*. Santa Fe, N.M.: School of American Research Press.
- Año de la recuperación del patrimonio monumental de América. 1978. 14 Nov. 14 pp. Oscar Cruz personal files, Copán Ruinas.
- Antiquities of Central America. 1900. May. 6 pp. Bowditch Papers, #41-7, 11.1. Correspondence Undated; also, C.A. Expedition Correspondence, 1900, 12.5. PMAE Archives.
- Axume, Ramón. 1987–89. Fotos del tratamiento de la piedra. 64 photos, 34 pp. CRIA Archives, 1.5.20.
- Barborak, James R., Roger Morales, and Craig MacFarland. 1984. *Plan de manejo y desarrollo del monumento nacional Ruinas de Copán, sitio de patrimonio cultural mundial*. Boletín Técnico 11. Turrialba, Costa Rica: Centro Agronómico Tropical de Investigación y Enseñanza.
- Baudez, Claude F., ed. 1983. *Introducción a la arqueología de Copán, Honduras*. 5 vols. Tegucigalpa, Honduras: Secretaria de Estado en el Despacho de Cultura y Turismo.
- Bell, Ellen E., Marcello A. Canuto, and Robert J. Sharer, eds. 2004. *Understanding Early Classic Copán*. Philadelphia: University of Pennsylvania Museum of Archaeology and Anthropology.
- Bleekman, John E. 1901. Letter to F. W. Putnam. 15 Mar. 1 p. Bowditch Papers, #41-7, 12.4. PMAE Archives.
- Bourelly, Pierre. 1966. *Les algues d'eau douce : Initiation à la systématique*. Vol 1. *Les algues vertes*. Paris: N. Boubée et Cie.
- . 1970. *Les algues d'eau douce : Initiation à la systématique*. Vol 3. *Les algues bleues et rouges, les Eugléniens, Péridiniens et Cryptomonadines*. Paris: N. Boubée et Cie.
- Bowditch, Charles P. 1890. Honduras trip. 2 vols., 210 pp. Typescript in two parts: part I, pp. 1–71; part II, pp. 1–159 (with photos). 1 Feb.–15 April. Bowditch Papers, #41-7, 1. PMAE Archives.
- [—?]. 1895a. Telegram to George B. Gordon. 25 Mar. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1895b. Letter to George B. Gordon. 5 May. 3 pp. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1895c. Letter to George B. Gordon. 11 May. 2 pp. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1895d. Letter to George B. Gordon. 19 June. 3 pp. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1899. Letter to Frederic W. Putnam. 15 June. Bowditch Papers, #41-7, 12.2. C.A. Expedition Correspondence, 1899. PMAE Archives.
- . 1900a. Letter to Frederic W. Putnam. 21 Feb. 1 p. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1900b. Letter to Frederic W. Putnam. 25 Mar. 1 p. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.

- . 1900c. Letter to Frederic W. Putnam. 12 Nov. 1 p. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1900d. Letter to Frederic W. Putnam. 13 Nov. 2 pp. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1901a. Letter to George B. Gordon. 28 Jan. 1 p. CAER, #01-40, 4.5. Correspondence. PMAE Archives.
- . 1901b. Letter to Frederic W. Putnam. 21 Oct. Bowditch Papers, #41-7, 12.4. C.A. Expedition Correspondence, 1901. PMAE Archives.
- . 1901c. Letter to George B. Gordon. 16 Nov. 3 pp. CAER, #01-40, 4.5. Correspondence. PMAE Archives.
- . 1901d. Letter to George B. Gordon. 18 Nov. 4 pp. CAER, #01-40, 4.5. Correspondence. PMAE Archives.
- Bowditch, Charles P., and Francis C. Lowell. 1891. *Exploration in Honduras*. Oct. 2 pp. Bowditch Papers, #41-7, 14.5. PMAE Archives.
- . 1893. Letter to George B. Gordon. 25 Feb. 6 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1893. PMAE Archives.
- Brunhouse, Robert L. 1971. *Sylvanus G. Morley and the world of the ancient Maya*. Norman: University of Oklahoma Press.
- Cabrera, José María. 1978. Letter to Miguel A. Rodríguez G. 16 May. 3 pp. IHAH Tegu. Archives.
- Cama Villafranca, C. Jaime, and Luis Torres Montes. 1975. *Proyecto de conservación para la zona arqueológica de Copán, Honduras*. 21 June. Instituto Nacional de Antropología e Historia, Churubusco, Mexico. 30 pp. CRIA Archives.
- Caneva, Giulia, and Ornella Salvadori. 1988. Biodeterioration of stone. In *The deterioration and conservation of stone: Notes from the international Venetian courses on stone restoration*. Ed. Lorenzo Lazzarini and Richard Pieper. Pp. 182–234. Paris: UNESCO Publishing.
- Castell, Darnell. 1972. Report of the Copán ruins project. Lyndon State College, Lyndonville, Vt.
- . 1974. Vermont-Honduras Copán ruins preservation project. Lyndon State College, Lyndonville, Vt.
- Chen, Jie, Hans-Peter Blume, and Lothar Beyer. 2000. Weathering of rocks induced by lichen colonization—a review. *Catena* 59: 121–46.
- [Chronology of pre-1975 reports on the site of Copán]. 1975. Jan. IHAH Tegu. Archives.
- Coe, Michael D. 1993. *The Maya*. London: Thames and Hudson.
- Conclusiones y recomendaciones de la reunión de expertos para la conservación de la escalinata jeroglífica del parque arqueológico Ruinas de Copán, 13 y 14 de Julio de 1997, Copán Ruinas, Copán, Honduras. [1997]. July. 4 pp. CRIA Archives.
- Cowper, Alfred Denys. 1927. *Lime and lime mortars*. Building Research Station Special Report 9. London: Her Majesty's Stationery Office. Reprint, Dorset, Eng.: Donhead Publishing, 1998.
- Crosby, Elisha O. 1892. Letter to Frederic W. Putnam. 27 April. 4 pp. CAER, #92-49, 5.4. Correspondence. PMAE Archives.
- Cruz M., Oscar. 1983. *Microflora. Registro fotográfico. Monumento cultural, Ruinas de Copán*. Instituto Hondureño de Antropología e Historia, Tegucigalpa, Honduras. 27 pp. CRIA Archives.
- . 1985. *Tratamiento para eliminar la microflora de los monumentos arqueológicos en Copán*. 3 pp. IHAH Tegu. Archives.
- . 1986. *Informe. Asunto: Proyecto arqueológico Copán (PAC) III Etapa*. 31 May. Correspondencia Recibida Gerencia. IHAH Tegu. Archives.
- . 1987. Letter to Rolando Soto. Oficio no. 149. Legajo 1087006. IHAH Tegu. Archives.
- Cruz Torres, Daniel. 1991. *Informe de actividades desarrollos durante el mes de Abril de 1991 en Copán Ruinas*. 2 May. Legajo 0591001. IHAH Tegu. Archives.
- Cueva, Juan R. 1894a. Telegram to George B. Gordon. 27 Nov. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1894b. Telegram to George B. Gordon. 29 Nov. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- . 1895. Telegram to George B. Gordon. 3 April. CAER, #95-42, 6.1. Correspondence, 1894–95. PMAE Archives.
- Cueva V., J. Adán. 1972. Letter to Arturo López Rodezno. 2 Aug. 3 pp. CRIA Archives.
- . 1975. Letter to Luis Torres Montes. Oficio no. 305 G. 30 July. 1 p. IHAH Tegu. Archives.
- Culbert, T. Patrick, ed. 1973. *The Classic Maya collapse*. Albuquerque: University of New Mexico Press.
- , ed. 1991. *Classic Maya political history: Hieroglyphic and archaeological evidence*. Cambridge, Eng.: Cambridge University Press.
- Desikachari, T. V. 1959. *Cyanophyta*. New Delhi: Indian Council of Agricultural Research.
- Druffel, Ellen R. M. 1997. Geochemistry of corals: Proxies of past ocean chemistry, ocean circulation, and climate. *Proceedings of the National Academy of Sciences of the United States of America* 94: 8354–61.

- Extractos de informes relacionados con el tratamiento de la microflora en las Ruinas de Copán. 1978. 14 Nov. 14 pp. Oscar Cruz personal files, Copán Ruinas.
- Fash, Barbara W. 1979. Letter to Adán Cueva. 11 April. 1 p. IHAH Tegu. Archives.
- . 1992. Late Classic architectural sculpture themes in Copán. *Ancient Mesoamerica* 5, no. 1: 89–104.
- Fash, Barbara, William L. Fash, S. Lane, R. Laríos, L. Schele, J. Stomper, and D. Stuart. 1992. Investigations of a Classic Maya council house at Copán, Honduras. *Journal of Field Archaeology* 19, no. 4: 419–42.
- Fash, William L. 1977. Letter to J. Adán Cueva. 24 Oct. 2 pp. IHAH Tegu. Archives.
- . 1988. A new look at Maya statecraft from Copán, Honduras. *Antiquity* 62, no. 234: 157–69.
- . 1991. *Scribes, warriors, and kings: The city of Copán and the ancient Maya*. New York: Thames and Hudson.
- . 2002. Religion and human agency in ancient Maya history: Tales from the Hieroglyphic Stairway. *Cambridge Archaeological Journal* 12, no. 1: 5–19.
- Fash, William L., and Robert J. Sharer. 1991. Sociopolitical developments and methodological issues at Copán, Honduras: A conjunctive perspective. *Latin American Antiquity* 2, no. 2: 166.
- Fash, William L., and David Stuart. 1991. Dynastic history and cultural evolution at Copán, Honduras. In *Classic Maya political history: Hieroglyphic and archaeological evidence*. Ed. T. Patrick Culbert. Pp. 147–79. Cambridge, Eng.: Cambridge University Press.
- Fash, William L., Richard V. Williamson, Carlos Rudy Laríos, and Joel Palka. 1992. The Hieroglyphic Stairway and its ancestors: Investigations of Copán Structure 10L-26. *Ancient Mesoamerica* 5, no. 1: 105–15.
- Feugueur, Léon. 1969. Compte-rendu d'examen des altérations en croûtes, des monuments mayas de Copán (Honduras). 25 Jan. 6 pp. CRIA Archives.
- Galindo, Juan. 1856. A description of the ruins of Copán in Central America. *Archaeologia Americana. Transactions and Collections of the American Antiquarian Society* 2: 545–50.
- . 1920. A description of the ruins of Copán in Central America. In Sylvanus Griswold Morley. *The inscriptions at Copán*. Carnegie Institution of Washington Publication 219. Pp. 595–604. Washington, D.C.: Carnegie Institution of Washington.
- García de Palacio, Diego. 1860. *Letter to the King of Spain, being a description of the ancient provinces of Guazacapan, Izalco, Cuscatlan, and Chiquimula, in the Audiencia of Guatemala, with an account of the languages, customs, and religion of their aboriginal inhabitants, and a description of the ruins of Copán*. [8 March 1576]. Trans. E. G. Squier. Albany: J. Munsell. Reprint, with additional notes by Alexander von Frantzius, ed. Frank E. Comarato, Culver City, Calif.: Labyrinthos, 1985.
- Gemperline, Mark, and Todd Rutenbeck. 2002. Copán, documentation of April 2002 site visit and report of findings. 16 July. 61 pp. Getty Conservation Institute, Los Angeles.
- Getty Conservation Institute [GCI]. 2000a. Maya initiative, Hieroglyphic Stairway, Copán, Honduras: Progress report, September 2000. Getty Conservation Institute, Los Angeles.
- . 2000b. Summary of interdisciplinary meeting, 11–16 September 2000—archaeological site of Copán, conservation of the Hieroglyphic Stairway. Getty Conservation Institute, Los Angeles.
- Golubic S., I. Friedmann, and J. Schneider. 1981. The lithobiotic ecological niche, with special reference to microorganisms. *Journal of Sedimentology and Petrology* 51, no. 2: 475–78.
- Gomez, and Jeronimo Zelaya. 1891. [Copán concession], translated from Spanish. 20 July. 3 pp. CAER, #92-49, 5.5. Expedition Reports. PMAE Archives.
- Gonlin, Nancy. 1995. Rural household archaeology at Copán, Honduras. PhD diss., Department of Anthropology, Pennsylvania State University.
- Gordon, George Byron. 1895a. Letter to Charles Pickering Bowditch. 21 Feb. 5 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895b. Letter to Charles P. Bowditch. 4 April. 3 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895c. Letter to Charles P. Bowditch. 25 April. 3 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895d. Letter to Charles P. Bowditch. 28 June. 2 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . [1893e]. Report on the work of the Peabody Museum expedition at the ruins of Copán during the season of 1892–95. Handwritten. 22 pp. CAER, #93-27, 2.3. PMAE Archives.
- . 1895a. Field notes March–June [1895]. 30 pp. CAER, #01-40, 4.4. PMAE Archives.

- . 1895b. Letter to Charles P. Bowditch. 2 Feb. 3 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895c. Letter to Charles P. Bowditch. 2 Mar. 6 pp., plus 1 p. with a drawing. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895d. Letter to Charles P. Bowditch. 9 April. 7 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895e. Letter to Charles P. Bowditch. 16 April. 4 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895f. Letter to Charles P. Bowditch. 20 May. 6 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895g. Letter to Charles P. Bowditch. 27 May. 3 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895h. Letter to Charles P. Bowditch. 3 June. 2 pp. Bowditch Papers, #41-7, 11.6. C.A. Expedition Correspondence, 1895. PMAE Archives.
- . 1895i. Report of the Honduras expedition. Oct. 30 pp., plus cover and cover letter. CAER, #01-40, 4.3. PMAE Archives.
- . 1896. *Prehistoric ruins of Copán, Honduras: A preliminary report of the explorations by the Museum, 1891–1895*. Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 1, no. 1. Cambridge, Mass.: The Museum.
- . 1898a. *Caverns of Copán: Report on explorations by the Museum, 1896–1897*. Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 1, no. 5. Cambridge, Mass.: The Museum.
- . 1898b. *Researches in the Uloa Valley, Honduras: Report on explorations by the Museum, 1896–1897*. Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 1, no. 4. Cambridge, Mass.: The Museum.
- . 1900a. Letter to Charles P. Bowditch. 8 April. 3 pp. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . 1900b. Letter to Charles P. Bowditch. 14 April. 4 pp. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . 1900c. Letter to Charles P. Bowditch. 5 May. 4 pp. with 13 photos. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . [1900d?]. Letter to Charles P. Bowditch. [Mid-May 1900?]. 5 pp. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . 1900e. Letter to Charles P. Bowditch. 27 May. 3 pp. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . 1900f. Letter to Charles P. Bowditch. 11 Aug. 2 pp. CAER, #01-40, 4.5; copy, Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1900g. Letter to Charles P. Bowditch. 11 Aug. 5 pp. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- [—?]. 1900h. Letter [to Honduran official?]. 11 Oct. 3 pp. Bowditch Papers, #41-7, 12.3. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1901a. Letter to Charles P. Bowditch. 30 Jan. 4 pp. Bowditch Papers, #41-7, 6.12. Correspondence. PMAE Archives.
- . 1901b. Report on expedition of 1900–1901. 24 June. 13 pp. CAER, #01-40, 4.5. Expedition Reports. PMAE Archives.
- . 1902. *The Hieroglyphic Stairway, ruins of Copán: Report on explorations by the Museum*. Memoirs of the Peabody Museum of American Archaeology and Ethnology, Harvard University, vol. 1, no. 6. Cambridge, Mass.: The Museum.
- Grissom, Carol A. 1994. The deterioration and treatment of volcanic stone: A review of the literature. In *Lavas and volcanic tuffs, proceedings of the international meeting, Easter Island, Chile, 25–31 October 1990*. Ed. A. Elena Charola, Robert J. Koestler, and Gianni Lombardi. Pp. 3–29. Rome: International Centre for the Study of the Preservation and the Restoration of Cultural Property.
- Grupo de trabajo para el tratamiento de la piedra de las Ruinas de Copán. 1988. Resultado de la visita de estudio a las Ruinas de Copán durante agosto 16–19 1988. 31 Aug. Memorandum, 7 pp. IHAH Tegu. Archives.
- Guiamet Patricia S., Sandra G. Gómez de Saravia, and Hector A. Videla. 1998. Biodeteriorating microorganisms of two archaeological buildings at the site of Uxmal, Mexico. In *Proceedings of Latincorr '98, 3rd NACE Latin American corrosion congress, 6th congreso iberoamericano de corrosión y protección, Cancun, Mexico, Aug. 30–Sept. 4, 1998*. Paper S11-01. Houston: NACE [National Association of Corrosion Engineers] International.
- Hale, Mason E., Jr. 1975. Informe sobre el crecimiento de líquenes en los monumentos de Copán, Honduras. *Yaxkin* 1, no. 1: 6–9, 16.
- . 1977. Letter to Jorge Adán Cueva. 4 Feb. 1 p. IHAH Tegu. Archives.
- . [1978a?]. Fourth report on control of biological growths on the Mayan ruins at Copán, Honduras, 18–20 January 1978. [Jan. 1978?]. 15 pp. CRIA Archives.
- . [1978b?]. Control of biological growths on Mayan archeological ruins in Guatemala and Honduras. Final report on National Geographic Society research project “Control of lichen growths on Mayan archeological ruins,” awarded 25 June 1975, with work completed in February 1978. [Feb. 1978?]. 24 pp. CRIA Archives.

- . 1979a. Conservación de monumentos arqueológicos mayas en Copán, Honduras: El programa biológico. *Yaxkin* 3, no. 2: 155–49.
- . 1979b. Letter to Claude F. Baudez. 6 Feb. 1 p. CRIA Archives.
- . 1979c. Letter to Claude F. Baudez. 27 Feb. 2 pp. CRIA Archives.
- . [1979d?]. Observations at Copán, Honduras, 7–8 June 1979, and recommendations for further treatments for controlling biological growths. [June 1979?]. 3 pp. CRIA Archives.
- . 1984. Control of biological growths on Mayan archeological ruins in Guatemala and Honduras. In *National Geographic Society research reports—1975 projects*. Ed. Paul H. Oehser, John S. Lea, and Nancy Link Powars. Vol. 16, pp. 305–21. Washington, D.C.: National Geographic Society.
- Hamburger, Hans H. 1983. Letter to Ricardo Agurcia Fasquelle. 5 Dec. 2 pp. IHAH Tegu. Archives.
- Heiken, G., N. Ramos, W. Duffield, J. Musgrave, K. Wohletz, S. Priest, J. Aldrich, W. Flores, A. Ritchie, F. Goff, D. Eppler, and C. Escobar. 1991. Geology of the Platanares geothermal area, departamento de Copán, Honduras. *Journal of Volcanology and Geothermal Research* 45: 41–58.
- Historia breve de la investigación y la conservación de la escalinata de los jeroglíficos, Ruinas de Copán, Honduras. Preparado para la conferencia de 1997 sobre la conservación del monumento 13–14 de julio de 1997, Copán Ruinas, Copán, Honduras. [1997]. 4 pp. CRIA Archives.
- Hoffmann, L. 1989. Algae of terrestrial habitats. *Botanical Review* 55, no. 2: 77–105.
- Instituto Hondureño de Antropología e Historia [IHAH]. 1997. Reunión de expertos para la conservación de la escalinata de los jeroglíficos del parque arqueológico Ruinas de Copán. Memoria, 13 y 14 Julio de 1997, Copán Ruinas, Copán, Honduras. July. 43 pp. IHAH, Tegucigalpa, Honduras. IHAH Tegu. Archives.
- . 1998. Perfil del programa piloto de preservación integral del patrimonio cultural en el área Maya: Copán. 26 pp. IHAH, Tegucigalpa, Honduras. IHAH Tegu. Archives.
- Instituto Hondureño de Antropología e Historia [IHAH], Centro de Patrimonio Mundial, and UNESCO. 1997. *Seminario-taller centroamericano de directores de sitios de patrimonio mundial y parques eco-arqueológicos. Memoria de la reunión febrero 1997, Copán Ruinas, Honduras*. Tegucigalpa, Honduras: IHAH.
- Instructions to George Byron Gordon. [1899?]. 6 pp. CAER, #01-40, 4.3. Expedition reports. PMAE Archives.
- International Council on Monuments and Sites [ICOMOS]. 1980. ICOMOS recommendation to the World Heritage Committee on the nomination of the Maya site of Copán to the World Heritage List. ICOMOS, Paris.
- Kidder, Alfred V. 1943. Division of Historical Research: Activities, 1942–1945. *Carnegie Institution of Washington Year Book* 42: 177–86.
- . 1944. Division of Historical Research: Activities, 1943–1944. *Carnegie Institution of Washington Year Book* 43: 167–87.
- . 1945. Division of Historical Research: Activities, 1944–1945. *Carnegie Institution of Washington Year Book* 44: 164–85.
- Komárek, J., and K. Anagnostidis. 1986. Modern approach to the classification system of cyanophytes, 2—Chroococcales. *Archiv für Hydrobiologie Supplementband* 73: 2, *Algological Studies* 43: 157–226.
- Kozuch, M. 1991. *Mapa geológico de la república de Honduras, escala 1:500,000*. Tegucigalpa, Honduras: Dir. General de Minas e Hidrocarburos, Instituto Geográfico Nacional.
- Kumar, Rakesh, and Anuradha V. Kumar. 1999. *Biodeterioration of stone in tropical environments: An overview*. Los Angeles: Getty Conservation Institute.
- Künzel, Hartwig M. 1995. *Simultaneous heat and moisture transport in building components: One- and two-dimensional calculation using simple parameters*. Stuttgart: IRB Verlag.
- Larios V., Carlos Rudy. 1985a. Informe 1-85. Labores realizadas durante el mes de enero (14–31). Jan. 3 pp. CRIA Archives.
- . 1985b. Informe 2-85. Labores realizadas durante el mes de febrero de 1985. 1 Mar. 4 pp. CRIA Archives.
- . 1985c. Informe 5-85. Actividades del mes de mayo. 3 June. 4 pp. CRIA Archives.
- Lincoln, Edmund. [1893a]. Catalogue of other objects, including sculptures. 9 pp. CAER, #93-27, 2.2. PMAE Archives.
- . [1893b]. Catalogue of the photographs taken by the Peabody Museum Honduras expedition at Copán season 1892–93. 12 pp. CAER, #93-27, 2.2. PMAE Archives.
- [—?]. [1893c]. [List of photographs captions]. [5–12 Jan. 1893]. 2 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1893. PMAE Archives.
- [List of paper molds to be sent to the Peabody Museum]. N.d. Putnam Papers, IV.5.36. 1870–1923 Records. Incoming Correspondence, Maya Sites. Putnam Records. PMAE Archives.
- [List of photographs]. [1893?]. 4 pp. (incomplete; only pages 2–3, 7–8 exist). CAER, #92-49, 5.2. Drawings and Plans. PMAE Archives.
- Lopez, Gorgonio. 1895. Letter to George B. Gordon. 16 Oct. 1 p. CAER, #95-42, 6.1. PMAE Archives.
- Madride, Carlos. 1893a. 18 April. 1 p. CAER, #93-27, 2.6. PMAE Archives.

- . 1893b. Letter to George B. Gordon. 14 May. 4 pp. CAER, #93-27, 2.6. PMAE Archives.
- Maekawa, Shin. 2000. Report on preliminary environmental monitoring at the Copán site. In Getty Conservation Institute. Maya initiative, Hieroglyphic Stairway, Copán, Honduras: Progress report, September 2000. Pp. 74–83. Getty Conservation Institute, Los Angeles.
- Maldonado, Luis, Luis Diaz, Armando Cabrera Sensores, Julia Pacheco Avila, and David Halsey. 1998. Natural and accelerated dissolution of limestones used in monuments under tropical atmospheres. In *Corrosion '98, proceedings of the 53rd annual conference of the National Association of Corrosion Engineers, March 22–27, 1998*, San Diego, California. Conference paper no. 350. Optical disc. Houston: NACE [National Association of Corrosion Engineers] International.
- Manahan, T. Kam. 2004. The way things fall apart: Social organization and the Classic Maya collapse of Copán. *Ancient Mesoamerica* 15: 107–25.
- Martin, William. 2001. Mortar trials carried out at Copán, December 10–14, 2001. Getty Conservation Institute, Los Angeles.
- Martínez, René. 1983. Informe: Evaluación de afecciones de los monumentos escultóricos de Copán. 22 Oct. 30 pp. CRIA Archives.
- . 1986. Letter to Oscar Cruz M. Presentar programa de actividades de preservación de los rasgos arqueológicos del monumento cultural las Ruinas de Copán. 4 Aug. 3 pp. IHAH Tegu. Archives.
- . 1987. Propuesta de implementación de techos protectores para los monumentos escultóricos de Copán. 22 Sept. Legajo 0987021. IHAH Tegu. Archives.
- Maudslay, Alfred P. 1889–1902. *Archaeology*. Vol. 1. Ed. Frederick Ducane Godman and Osbert Salvin. Biología Centrali-Americana. Facsimile of the 1st ed., with introd. by Dr. Francis Robicsek. New York: Milpatorn, 1974.
- . 1894. Notes from Mr. Maudslay in relation to work in Copán. May. 4 pp. CAER, #93-27, 2.4. PMAE Archives.
- . 1900. Letter to George B. Gordon. 14 Oct. 4 pp. CAER, #93-27, 2.4. PMAE Archives.
- Meteorological record [daily temperature, atmospheric pressure], December 1892–March 1893. [1892–93]. 4 pp. Bowditch Papers, #41-7, 11.5. PMAE Archives.
- Miller, Mary Ellen. 1988. The meaning and function of the Main Acropolis, Copán. In *The Southeast Classic Maya zone: A symposium at Dumbarton Oaks, 6th and 7th October 1984*. Ed. Elizabeth Hill Boone and Gordon Randolph Willey. Pp. 149–94. Washington, D.C.: Dumbarton Oaks Research Library and Collection.
- Ministry of Culture and Tourism of Honduras. 1979. Nomination of the Maya site of Copán to the World Heritage List.
- Morley, Sylvanus Griswold. 1910. Letter to Charles P. Bowditch. 6 June. 4 pp. Bowditch Papers, #41-7, 5.1. PMAE Archives.
- . 1915. Archaeology. *Carnegie Institution of Washington Year Book* 14: 343–47.
- . 1916. Archaeology. *Carnegie Institution of Washington Year Book* 15: 337–42.
- . 1918. Archaeology. *Carnegie Institution of Washington Year Book* 16: 285–89.
- . 1919. Archaeology. *Carnegie Institution of Washington Year Book* 17: 269–76.
- . 1920. *The inscriptions at Copán*. Carnegie Institution of Washington Publication 219. Washington, D.C.: Carnegie Institution of Washington.
- . 1924. Archaeology. *Carnegie Institution of Washington Year Book* 22: 267–73.
- . 1926. Archaeology. *Carnegie Institution of Washington Year Book* 25: 259–86.
- . 1935a. [Original field diary]. Book II #86. Handwritten. CIW Records, III-v#1. PMAE Archives.
- . 1935b. [Original field diary]. Book III #88. Handwritten. CIW Records, III-v#1. PMAE Archives.
- . 1937. [Original field diary]. Book II #164. Handwritten; typed transcript by Sarah Jackson. CIW Records, II-II#4. PMAE Archives.
- . 1947. Yucatán, Guatemala, Honduras. *Carnegie Institution of Washington Year Book* 46: 187–88.
- Nash, Thomas H., III, B. D. Ryan, P. Diederich, C. Gries, and F. Bungartz. 2004. *Lichen flora of the greater Sonoran Desert region*. Vol. 2. Tempe, Ariz.: Lichens Unlimited, Arizona State University.
- Nash, Thomas H., III, B. D. Ryan, C. Gries, and F. Bungartz. 2002. *Lichen flora of the greater Sonoran Desert region*. Vol. 1. Tempe, Ariz.: Lichens Unlimited, Arizona State University.
- Nusbaum, Deric. [1935a]. Field note book #98. CIW Records, III-II#4. PMAE Archives.
- . [1935b?]. Foundation constructions of Copán monuments. Honors thesis. Extracts. CIW Records, #58-54 II-v#6. PMAE Archives.
- [Obituary of Alfred Percival Maudslay, 1850–1931]. 1931. *Times* (London). Jan. 24. Bowditch Papers, #41-7, 9.13. PMAE Archives.
- Owens, John Gundy. 1892a. Letter [to Charles P. Bowditch?]. 19 Jan. Bowditch Papers, #41-7, 14.5. Miscellaneous Reports and Papers. PMAE Archives.

- . 1892b. Letter to W. F. Curtis. 26 July. 1 p. CAER, #92-49, 5.4. Correspondence. PMAE Archives.
- . 1892c. Letter to Frederic W. Putnam. Statement of the diplomatic relations between the governments of Guatemala and Honduras and the Peabody Museum Honduras expedition during the season 1891–1892. 29 July. 18 pp. CAER, #92-49, 5.5. Expedition Reports. PMAE Archives.
- . 1892d. Letter to Charles P. Bowditch. 13 Dec. 2 pp. CAER, #95-27, 2.6. PMAE Archives.
- . 1892e. Letter to Charles P. Bowditch. 20 Dec. 3 pp. CAER, #95-27, 2.6. PMAE Archives.
- . 1892f. Letter to Charles P. Bowditch. 27 Dec. 2 pp. CAER, #95-27, 2.6. PMAE Archives.
- . 1893a. Letter to Charles P. Bowditch. 12 Jan. 2 pp. CAER, #95-27, 2.6. PMAE Archives.
- . [1893b]. Peabody Museum Honduras expedition, Copán. Season 1891–1892. Notebook. CAER, #95-27, 3.2. PMAE Archives.
- [Owens, John G., and Marshall H. Saville]. 1892. Letter [to Charles P. Bowditch?]. 29 Feb. Bowditch Papers, #41-7, 11.5. C.A. Expedition Correspondence, 1892; also, selected extracts in Bowditch Papers #41-7, 14.5. Miscellaneous Reports and Papers. PMAE Archives.
- Patton, G. Farrar, MD. 1901. Letter to Dr. P. R. Outlaw. 4 June. 1 p. CAER, #01-40, 4.5. Correspondence. PMAE Archives.
- [Pavón Abreu, Raúl, and Hipolito Sanchez Vera]. 1989. El archivo “Raul Pavon Abreu” de las inscripciones jeroglíficas de Copán, Honduras (1946–1948) con dibujos por Hipolito Sanchez Vera. Presentado al Instituto Hondureño de Antropología e Historia por George E. Stuart, The National Geographic Society y The Center for Maya Research. June. CRIA Archives.
- Photographs, 1869 and 1856. [1900?]. [Site notes written by George B. Gordon?]. 4 pp. (incomplete). Bowditch Papers, #41-7, 9.1. PMAE Archives.
- Podani, J. 1997. *SYN-TAX 5.1. Computer programs for multivariate data analysis in ecology and systematics, version 5.0*. Budapest: Scientia Publishing.
- Proskouriakoff, Tatiana. [1939]. C.I.W. Copán project original field diary #253. CIW Records, III-I#18a. PMAE Archives.
- . 1946. *An album of Maya architecture*. Carnegie Institution of Washington Publication No. 558. Washington D.C.: Carnegie Institution of Washington. Reprint, Norman: University of Oklahoma Press, 1963.
- Putnam, Frederic W. 1891. Letter to Mrs. Saville, Owens, Price, and Dodge. Honduras expedition. 5 Nov. 10 pp. CAER, #92-49, 5.5; copy, CAER, 1.1. Correspondence. PMAE Archives.
- . [1892]. Letter to John G. Owens. 12 Mar. 6 pp. Bowditch Papers, #41-7, 11.5. C.A. Expedition Correspondence, 1892. PMAE Archives.
- . 1900. Letter to George Byron Gordon. 9 June. 3 pp. Bowditch Papers, #41-7, 12.5. C.A. Expedition Correspondence, 1900. PMAE Archives.
- . 1901. Letter to Charles P. Bowditch. 25 July. 4 pp. Bowditch Papers, #41-7, 12.4. C.A. Expedition Correspondence, 1901. PMAE Archives.
- Riederer, Josef. 1982. Conservación de los monumentos de piedra de Copán, Honduras. Translation 105-600.56|00 HON-82-3037. 15 pp. CRIA Archives.
- . 1983. Die Erhaltung von Steindenkmälern in Copán, Honduras. *Berliner Beiträge zur Archäometrie* 8: 325–36.
- [—]. 1985. Letter to Instituto Hondureño de Antropología e Historia. 12 Aug. 1 p. CRIA Archives.
- . 1986a. Conservación de los monumentos de piedra de Copán, Honduras. *Yaxkin* 9, no. 1: 65–76.
- . 1986b. Protection from weathering of building stone in tropical countries. In *Case studies in the conservation of stone and wall paintings: Preprints of the contributions to the Bologna Congress, 21–26 Sept. 1986*. Ed. N. S. Brommelle and Perry Smith. Pp. 151–54. London: International Institute for Conservation of Historic and Artistic Works.
- Riederer, Josef, Mason E. Hale Jr., Sigfrido Sandoval, Wilmer S. Flores, Rolando Soto G., Erasmo Sosa, Miguel Antonio Rodríguez Gudiel, Oscar Cruz Melgar, Giorgio Stangalino, Edmee Fchalkx, and Ilse Zanoletti de Giuliani. 1986. Mesa redonda “Acerca de la conservación de la piedra de los monumentos de las Ruinas de Copán.” Conclusiones y recomendaciones de las reuniones sobre la conservación de los monumentos de piedra de las Ruinas de Copán, 29 de agosto al 4 de septiembre 1986. 4 Sept. 10 pp. IHAH Tegu. Archives.
- Riese, Berthold. 1978. Bibliografía arqueológica y epigráfica del valle de Copán, Honduras, hasta 1977. Part 9 of the unpublished report Abriß der archäologischen Feldforschung im Tal von Copán. Mar. 21 pp. CRIA Archives.
- . 1979. Proyecto Arqueológico Copán, estudios epigráficos. Informe final de la segunda temporada. Nov. CRIA Archives.
- . 1983. Protección y conservación de las esculturas mayas de Copán. 8 Aug. 1 p. IHAH Tegu. Archives.
- Rizzi Longo, L., L. Poldini, and F. Goia. 1980. La microflora algale delle pareti calcaree del Friuli Venezia Giulia (Italia nord-orientale). *Studia Geobotanica* 1, no. 1: 251–63.

- Rodriguez Gudiel, Miguel Antonio. 1977a. Proyecto para la eliminación biológica de la microflora que afecta a los principales monumentos de piedra de las Ruinas de Copán. 29 July. 3 pp. CRIA Archives.
- . 1977b. Letter to Mason E. Hale. 10 Nov. 2 pp. CRIA Archives.
- . 1979. Tratamiento de la microflora en las Ruinas de Copán. Jan. 7 pp. IHAH Tegu. Archives.
- . 1980. Informe de viaje: Copán Ruinas, Comayagüa, San Pedro Sula del 19 al 23 de mayo de 1980. May. Legajo: Restauración 0080028. IHAH Tegu. Archives.
- . 1981a. Informe de viaje no. 9. Copán Ruinas 26, 27, 28 de mayo 1980. May. Legajo: Restauración 05810019. IHAH Tegu. Archives.
- . 1981b. Informe de viaje no. 11. San Pedro Sula, La Ceiba, Pinalego y Copán Ruinas 10 al 14 agosto de 1981. Aug. Legajo: Restauración 08810029. IHAH Tegu. Archives.
- . 1985a. Letter to Ricardo Agurcia Fasquelle. 12 Nov. 2 pp. CRIA Archives.
- . 1985b. Informe sobre las actividades realizadas en la República federal de Alemania, 1985-50-9-8. 3 pp. CRIA Archives.
- . 1987. Oficio no. 65 to Don Victor C. Cruz Reyes. 14 Oct. D.P. Legajo 1087022. IHAH Tegu. Archives.
- . [Ca. 1992]. El tratamiento de la piedra en Copán. 14 pp. Unfinished[?] personal report obtained from the author.
- Rodriguez Gudiel, Miguel Antonio, Rolando Soto G., Oscar Cruz Melgar, Erasmo Sosa, and Sigfrido Sandoval. 1988. Resultado de la visita de estudio a las Ruinas de Copán durante agosto 16–19 1988. 31 Aug. 7 pp. IHAH Tegu. Archives.
- Rodriguez Gudiel, Miguel Antonio, Rolando Soto G., and Sigfrido Sandoval. 1984. II sesión de trabajo de la comisión técnica para la restauración y conservación de la piedra de las Ruinas de Copán celebrada los días del 28 y 29 de julio de 1984 en el salón de conferencias del centro de visitantes del parque arqueológico de las Ruinas de Copán. July. 4 pp. CRIA Archives.
- Rodriguez Navarro, Carlos. 1998. Mineralogy and texture of the stones used in the Hieroglyphic steps of Copán (Honduras). 5 pp. Getty Conservation Institute, Los Angeles.
- Rudy Larios, Carlos. 1985a. To Vito Véliz R. Informe no. 1-85. Labores realizadas durante el mes de enero (14–31). Jan. 2 pp. CRIA Archives.
- . 1985b. To Vito Véliz R. Informe no. 2-85. Labores realizadas durante el mes de febrero de 1985. 1 Mar. 4 pp. CRIA Archives.
- . 1985c. To Vito Véliz R. Informe no. 5-85. Actividades del mes de mayo. 3 June. 3 pp. CRIA Archives.
- Sabloff, Jeremy A. 1990. *The new archaeology and the ancient Maya*. New York: Scientific American Library.
- Sandberg Consulting Engineers. 2000. Hieroglyphic Stairway, analysis of mortar samples, report 21190/C. Aug. Getty Conservation Institute, Los Angeles.
- Sanders, William. 1983. Letter to Ricardo Agurcia F. 19 April. 2 pp. IHAH Tegu. Archives.
- Sanders, William T., ed. 1986–90. *Excavaciones en el área urbana de Copán*. 3 vols. Tegucigalpa, Honduras: Instituto Hondureño de Antropología e Historia y Secretaría de Cultura y Turismo.
- Sandoval, Sigfrido Antonio. 1983. Proyecto de investigación geoquímica de conservación de los monumentos de las Ruinas de Copán. 10 June. 12 pp. IHAH Tegu. Archives.
- . 1984. Acera de la investigación geoquímica del proceso de deterioro de los monumentos de las Ruinas de Copán. 15 Mar. 54 pp. CRIA Archives.
- . 1988. Memorandum to Víctor C. Cruz Reyes. Resultados de la visita de estudio a las Ruinas de Copán durante noviembre 15–16 de 1987. 22 Jan. 5 pp. IHAH Tegu. Archives.
- Saville, Marshall Howard. 1892a. Letter [to Charles P. Bowditch?]. 25 Jan. Bowditch Papers, #41-7, 14.5. Miscellaneous Reports and Papers. PMAE Archives.
- . [1892b]. Catalogue of photographs taken at Copán, Honduras 1891–1892. 24 pp. CAER, #92-49, 5.6. PMAE Archives.
- . [1892c]. Report of the Honduras expedition 1891–1892. 16 pp. CAER, #92-49, 5.6. PMAE Archives.
- [—?]. [1892d?]. The stelae of Copán. 12 pp. CAER, #92-49, 5.6. PMAE Archives.
- . 1893. Letter to Prof. [D.?] T. Mason. 16 May. 2 pp. Bowditch Papers, #41-7, 11.4. C.A. Expedition Correspondence, 1893. PMAE Archives.
- Schele, Linda, and David Freidel. 1990. *A forest of kings: The untold story of the ancient Maya*. New York: William Morrow.
- Schele, Linda, and Rudy Larios. 1991. *Stairway dedication dates in the Hieroglyphic Stairway inscription*. Copán Notes 101. Tegucigalpa, Honduras: Instituto Hondureño de Antropología e Historia.
- Schenker and Co. Letter to the Instituto Hondureño de Antropología e Historia. N.d. 1 p. CRIA Archives.
- Schumann de Baudez, Isabelle. 1983. Agrícola y agricultores en la región de Copán. In *Introducción a la arqueología de Copán*. Ed. C. F. Baudez. Pp. 195–228. Tegucigalpa, Honduras: Secretaria de Estado en el Despacho de Cultura y Turismo.

- Shook, Edwin M. 1936. Field notebook, Copán 1936(1) #99. 75 pp. CIW Records, III-II#9. PMAE Archives.
- . 1937. Field notebook, Copán 1937(1) #100. 59 pp. CIW Records, III-II#9. PMAE Archives.
- . 1940. Field notebook, Copán 1940(1) #225. 75 pp. CIW Records, III-II#9. PMAE Archives.
- Smith, Robert Eliot. 1949. Letter to Gustav Strømsvik. 23 Feb. Box 2, series 1: Correspondence, Robert Eliot Smith Papers, NSD-7. Special Collections and University Archives, Malcolm A. Love Library, San Diego State University.
- Snethlage, Rolf. 1997. *Leitfaden Steinkonservierung: Planung von Untersuchungen und Massnahmen zur Erhaltung von Denkmälern aus Naturstein*. Stuttgart: Fraunhofer IRB Verlag.
- Soto G., Rolando. [1984?]. Conservación y restauración de las Ruinas de Copán. 6 pp. IHAH Tegú. Archives.
- . 1985. Letter to R. Agurcia. Viaje realizado a Copán Ruinas no. 11. Asunto: Revisión de los trabajos de restauración en el proyecto a Copán. 8–10 May. Legajo 0585007. IHAH Tegú. Archives.
- . 1987. Letter to Oscar Cruz. 28 Sept. Of. no. 056-DR-87. Legajo 0987031. IHAH Tegú. Archives.
- . 1991. To Arq. José Maria Casco. Informe de viaje no. 24-DR-91. Asunto: Intervenir la estela “A” en su consolidación, asistir a las ceramistas que elaboran las replicas y supervisar los trabajos de consolidación de estucos. 27–30 Aug. Legajo 0891045. IHAH Tegú. Archives.
- Stephens, John Lloyd. 1841. *Incidents of travel in Central America, Chiapas, and Yucatán*. Drawings by Frederick Catherwood. London: John Murray.
- Strømsvik, Gustav. 1935a. Copán. *Carnegie Institution of Washington Year Book* 34: 118–20.
- . 1935b. Copán field notebooks. Book I #96; Book II #94. CIW Records, III-III#3. PMAE Archives.
- . 1935c. Copán project. Diary of Gustav Strømsvik 1935. Typescript, bound volume. 161 pp. LAMNM.
- . 1936a. Copán. *Carnegie Institution of Washington Year Book* 35: 117–20.
- . 1936b. Copán field notebooks. Book I #92; Book II #91. CIW Records, III-III#3. PMAE Archives.
- . 1936c. Copán project. Diary of Gustav Strømsvik 1936. Typescript, bound volume. 184 pp. LAMNM.
- . 1937a. Copán. *Carnegie Institution of Washington Year Book* 36: 137–39.
- . 1937b. Copán field notebooks. Book I #107; Book II #108; Book III #109. CIW Records, III-III#3. PMAE Archives.
- . 1937c. Copán project. Diaries Gustav Strømsvik 1936–1937. Typescript, box of 274 loose sheets. LAMNM.
- . 1938a. Copán. *Carnegie Institution of Washington Year Book* 37: 147–52.
- . 1938b. Copán field notebooks. Book I #110; Book II #113. CIW Records, III-III#3. PMAE Archives.
- . 1938–41. Copán project. Diaries Gustav Strømsvik 1938–1941. Typescript, box of 486 loose sheets. LAMNM.
- [—]. 1939. Copán. *Carnegie Institution of Washington Year Book* 38: 241–42.
- . 1940. Copán. *Carnegie Institution of Washington Year Book* 39: 264–65.
- . 1941a. Copán 1941 report. 52 pp. CIW Records, “Not in 1963” inventory, no. 11. PMAE Archives.
- . 1941b. Honduras. *Carnegie Institution of Washington Year Book* 40: 292–95.
- . 1942. Honduras. *Carnegie Institution of Washington Year Book* 41: 249–50.
- . 1942–46. Copán project. Diaries Gustav Strømsvik 1942–1946. Typescript, box of 136 loose sheets. LAMNM.
- . 1946. Copán project. *Carnegie Institution of Washington Year Book* 45: 201–3.
- . 1949. Honduras and Guatemala. *Carnegie Institution of Washington Year Book* 48: 231–32.
- Stuart, David. 1988. *Notes on the inscription from Temple 26*. Copán Notes 56. Tegucigalpa, Honduras: Instituto Hondureño de Antropología e Historia.
- . 1992. Hieroglyphs and archaeology at Copán. *Ancient Mesoamerica* 3, no. 1: 169–84.
- . 2005 A foreign past: The writing and representation of history at a royal ancestral shrine at Copán. In *Copán: The history of an ancient Maya kingdom*. Ed. E. Wyllys Andrews and William F. Fash. Santa Fe, N.M.: School of American Research Press.
- Stuart, David, and Linda Schele. 1986. *Interim report on the Hieroglyphic Stairs of Structure 26*. Copán Notes 17. Austin, Tex.: Copán Mosaics Project / Tegucigalpa, Honduras: Instituto Hondureño de Antropología e Historia.
- Tashiro, Toshiharu. 1992. Informe sobre el estafo actual de deteriora en estelas A y C de Copán Ruinas desde el punto de vista de geología. Jan. 30 pp. CRIA Archives.
- Terms of concession applied for in the autumn of 1899. [1899]. 2 pp. Bowditch Papers, #41-7, 12.2. C.A. Expedition Correspondence, 1899. PMAE Archives.

- Teutonico, Jeanne Marie, Iain McCaig, Colin Burns, and John Ashurst. 1994. The Smeaton Project: Factors affecting the properties of lime-based mortars. *APT Bulletin* 25, nos. 3-4: 32-49.
- [To the Friends of Archaeological Research in America (draft)]. 1898. Bowditch Papers, #41-7, 12.1. C.A. Expedition Correspondence, 1898. PMAE Archives.
- To the Friends of Archaeological Research in America. [1899?]. [Written by Frederic W. Putnam, Francis C. Lowell, and Charles P. Bowditch?]. 3 pp. CAER, #01-40, 4.5. PMAE Archives.
- Torres Montes, Luis, and Francisca Franco V. [1980?]. Proyecto para continuación del estudio para el deterioro y conservación de la piedra en la ciudad arqueológica de Copán. 3 pp. IIAH Tegu. Archives.
- Turner, B. L., II, William C. Johnson, Gail A. Mahood, Frederick M. Wiseman, B. L. Turner, and Jackie Poole. 1983. Hábitat y agricultura en la región de Copán. In *Introducción a la arqueología de Copán, Honduras*. Ed. Claude F. Baudez. Vol. 1, pp. 35-142. Tegucigalpa, Honduras: Secretaría de Estado en el Despacho de Cultura y Turismo.
- Véliz R., Vito. 1983a. Letter to Ricardo Agurcia F. 14 Feb. 1 p. IIAH Tegu. Archives.
- . 1983b. Problema de los monumentos de Copán. Reunión especialistas, Copán Ruinas, 23 y 24 de abril de 1983. 11 May. 4 pp. IIAH Tegu. Archives.
- . 1984a. To Ricardo Agurcia F. Informe no. 7-84. Actividades realizadas en el proyecto arqueológico Copán durante el mes de julio. Sept. 3 pp. IIAH Tegu. Archives.
- . 1984b. To Ricardo Agurcia F. Informe no. 8-84. Labores realizadas durante el mes de agosto en la diferentes secciones del proyecto. Sept. Correspondencia Lic. Vito Veliz, 1984. IIAH Tegu. Archives.
- . 1985. To Ricardo Agurcia F. Informe no. 12-84. Actividades realizadas en las diferentes secciones del P.A.C. durante el mes de diciembre 1984. 18 Jan. IIAH Tegu. Archives.
- Videla, Héctor A., Patricia S. Guiamet, and Sandra G. Gómez de Saravia. 2000. Biodeterioration of Mayan archaeological sites in the Yucatan Peninsula, Mexico. *International Biodeterioration & Biodegradation* 46, no. 4: 335-41.
- Videla, Héctor A., and Cesáreo Sáiz-Jiménez. 2002. *Biodeterioro de monumentos de Iberoamérica*. Madrid: Ciencia y Tecnología para el Desarrollo (CYTED).
- Villela, Khristaan D. 2002. Morley hires Tatiana Proskouriakoff. *Precolumbian Art Research Institute Journal* 1, no. 2: 1-11.
- Vose, Russell S., Richard L. Schmoyer, Peter M. Steurer, Thomas C. Peterson, Richard Heim, Thomas R. Karl, and Jon K. Eischeid. 1992. *The global historical climatology network: Long-term monthly temperature, precipitation, sea level pressure, and station pressure data*. ORNL/CDIAC-53, NDP-041. Environmental Sciences Division publication no. 5912. Oak Ridge, Tenn.: Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory. (Available to the public from National Technical Information Service, Springfield, Va.)
- Warscheid, Thomas, and Joanna Braams. 2000. Biodeterioration of stone: A review. *International Biodeterioration & Biodegradation* 46, no. 4: 343-68.
- Webster, David, ed. 1989. *The House of the Bacabs, Copán, Honduras*. Dumbarton Oaks Studies in Pre-Columbian Art and Archaeology No. 29. Washington, D.C.: Dumbarton Oaks Research Library and Collections.
- . 1999. The archaeology of Copán, Honduras. *Journal of Archaeological Research* 7, no. 11: 1-53.
- Wenzel, Fritz. 1999. Visit to Copán from 4th to 6th November 1999. Initial expert assessment. 17 pp. Getty Conservation Institute, Los Angeles.
- Whitlach, Robert B., and R. G. Johnson. 1974. Methods for staining organic matter in marine sediments. *Journal of Sedimentary Petrology* 44: 1310-12.
- Williamson, Richard V. 1996. Excavations, interpretations, and implications of the earliest structures beneath Structure 10L-26 at Copán, Honduras. In *Eight Palenque round table, 1993*. Ed. Merle Greene Robertson, Martha J. Macri, and Jan McHargue. Pp. 169-76. San Francisco: Pre-Columbian Art Research Institute.
- Wright, Fred E. 1920. A petrographic description of the material of the Copán monuments. In Sylvanus Griswold Morley. *The inscriptions at Copán*. Pp. 463-64. Carnegie Institution of Washington Publication 219. Washington, D.C.: Carnegie Institution of Washington.
- Zelaya Rubi, Virgilio, and Mason Hale. 1983. Observaciones en Copán, Honduras, el 7-8 de junio de 1979 y recomendaciones para nuevos tratamientos para controlar crecimientos biológicos. In *La pietra: Interventi, conservazione, restauro: Atti del convegno internazionale, Lecce, 6-8 novembre 1981*. Ed. Antonio Cassiano, Orazio Curti, and Giovanna Delli Ponti. Pp. 159-70. Galatina, Italy: Congedo Editore.

Text Credits

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Gionata Rizzi, architect in private practice, wrote Appendix G, “Design Concepts for a New Protective Shelter for the Hieroglyphic Stairway.”

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Stefan Simon, conservation scientist and former Senior Scientist, Building Materials Laboratory, Getty Conservation Institute, contributed to the sections “Analyses of Materials,” “Principal Findings,” and “Testing of Stone and Masonry Conservation Techniques and Materials.”

Elsa Bourguignon and Thomas Roby edited all sections. Elsa Bourguignon compiled and formatted the document and all illustrations.

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