

MA: Themen der Ägyptologie: Produktion und Handwerk im alten Ägypten
13718/13719 (Seminar und Mentoring)
Sommersemester 2019, FU Berlin
Dozentin: Dr. Anna K. Hodgkinson (a.hodgkinson@fu-berlin.de)
Dienstags, 12-14 Uhr, Raum 0.2001

Ziele und Inhalt des Kurses:

Dieser Kurs soll den Studierenden den Zugang zu den archäologischen und bildlichen Quellen zu altägyptischer Produktion und Handwerk ermöglichen. Anhand von ausgewählten Fallbeispielen sollen theoretische Konzepte (wie z.B. *Chaîne Opératoire*, Haushaltsarchäologie), handwerkliche Spezialisierung, Innovation, Organisation und Kontrolle, sowie Rohstoffe und -produkte und deren Verarbeitung behandelt werden. Durch das Betrachten unterschiedlicher Quellen und das Erlernen verschiedener archäologischer Methoden (wie z.B. Objekt- und Fundortanalysen, Experimentelle Archäologie) lernen die Studierenden, sich mit den unterschiedlichen Hinterlassenschaften handwerkshaftlicher Aktivitäten, sowie der damit verbundenen Problematik auseinanderzusetzen, und dieses Wissen auch in späteren Forschungsaktivitäten einzusetzen.

Zu erbringende Leistungen:

- Aktive Teilnahme an 80% der Unterrichtszeit
- Referat (30-40 Minuten, inkl. Powerpoint Präsentation)
- Hausarbeit
 - 4500 Wörter insgesamt, ausgenommen Zitate, sowie Bibliographie, und Abbildungsverzeichnis
 - Hausarbeiten am besten bereits zur letzten Sitzung (09.07.2019) fertig einreichen, jedoch **spätestens** bis zum 30.09.2019 in elektronischer Form (jeweils als PDF mit allen Bildern und als DOCX ohne Bilder aber sonst gleicher Ausführung (inkl. Bildunterschriften etc.)) per Email oder WeTransfer an Dozentin schicken.
 - Eine Draftversion muss bereits **eine Woche vor** dem Referat fertig sein und dem/r Co-Referenten/in geschickt werden
- Co-Referat von ca. 10 Minuten und Gutachten (Mentoring)

Das Co-Referat:

- 1) Stud. A bereitet Referat vor, schickt eine Woche vorher ihre/seine Ausarbeitungen an Stud. B
- 2) Stud. A hält Referat, Stud. B hält direkt danach Co-Referat
- 3) Stud. A schreibt die Hausarbeit fertig und gibt sie Stud. B
- 4) Stud. B schreibt Gutachten, lässt dieses Stud. A und A. Hodgkinson bis 30.09. zukommen (wenn möglich, früher)
- 5) Stud. A kann Hausarbeit noch einmal ändern und schickt sie A. Hodgkinson bis zum 30.09.2019.

Termine (verpflichtend):

- **Gastvortrag zum Thema Archäometallurgie** durch Dr. Frederik Rademakers (Titel wird bekanntgegeben): voraussichtlich Di. 14.05.2019, 18 Uhr
- **Besuch des Depots des Ägyptischen Museums und Papyrussammlung** (Blocksitzung - Treffpunkt ist das Foyer des Archäologischen Zentrums, Geschwister-Scholl-Str. 6, 10117 Berlin): 06. Juni (Do.), 10-14 Uhr
- **Besuch des Rathgen-Forschungslabors** (Treffpunkt ist Ecke Schloßstr./Spandauer Damm, vor dem Museum Berggruen, 14059 Berlin): 21. Mai (Di.), voraussichtlich 11-13 Uhr
- **Ausfalltermine:** 09.07.2019 (wg. Blockunterricht), 04.06.2019 (wg. Depotsitzung 06.06.)

Referatsthemen:

1. **Haushaltsarchäologie:** Raumaufteilung in häuslichen Werkstätten
2. Technologische **Innovationen** im altägyptischen Handwerk
3. **Rohmaterialien** – Akquisition und Transport
4. **Agency** in der altägyptischen Produktion: Produktions- und Gebrauchsspuren, deren Identifikation und Interpretation
5. **Gender** in der altägyptischen Produktion: Wer machte was in der Werkstatt?
6. Fein und Grob: die **Werkzeuge** der alten Ägypter
7. Versorgung: die Technologie der Zubereitung von **Brot** und **Bier** im alten Ägypten
8. Logistik: **Transport** von großen und schweren Gütern (z.B. Blöcken, Statuen)
9. **Technologische Variation** und Multifunktionalität im antiken Gebrauch von archäologischen Gegenständen

Literatur:

a) allgemein und Theorie:

Blackman, M. J., G. J. Stein, and P. B. Vandiver. 1993. "The Standardization Hypothesis and Ceramic Mass Production: Technological, Compositional, and Metric Indexes of Craft Specialization at Tell Leilan, Syria." *American Antiquity* 58 (1): 60–80.

Bourriau, Janine, and Jacqueline Sharon Phillips, eds. 2004. *Invention and Innovation: The Social Context of Technological Change. 2: Egypt, the Aegean and the Near East, 1650-1150 BC*. Oxford: Oxbow Books.

Costin, Cathy Lynne. 1991. "Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production." In *Advances in Archaeological Method and Theory Volume 3*, edited by Michael B. Schiffer, 1–56. Tucson: University of Arizona Press.

———. 2005. "Craft Production." In *Handbook of Archaeological Methods*, edited by Herbert D. G. Maschner, 1034–1107. Walnut Creek, CA: AltaMira.

———. 2015. "Craft Specialization." In *The International Encyclopedia of Human Sexuality*, edited by A. Bolin and P. Whelehan. <https://doi.org/10.1002/9781118896877.wbiehs106>.

Darvill, Timothy. 2008. *Chaîne Opératoire*. 2nd ed. Oxford University Press.

<http://www.oxfordreference.com/view/10.1093/acref/9780199534043.001.0001/acref-9780199534043-e-760>.

Di Paolo, Silvana. 2013. "The Historiography of the Concept of 'Workshop' in Ancient Near Eastern Archaeology: Descriptive Models and Theoretical Approaches (Anthropology vs. Art History)." In *Critical Approaches to Ancient Near Eastern Art*, edited by Brown, Brian A. and Feldman, Marian H., 111–32. Boston/Berlin: Walter de Gruyter.

Gilberg, Mark. 1997. "Alfred Lucas: Egypt's Sherlock Holmes." *Journal of the American Institute for Conservation* 36 (1): 31. <https://doi.org/10.2307/3180082>.

Hodgkinson, Anna K. 2011. "Mass Production in New Kingdom Egypt: The Industries of Amarna and Piramesse." In *Current Research in Egyptology 2009: Proceedings of the Tenth Annual Symposium, University of Liverpool 2009*, edited by Claire Malleon, Judith Corbelli, and Daniel Boatright, 81–98. Oxford: Oxbow.

———. 2018. *Technology and Urbanism in Late Bronze Age Egypt*. Oxford Studies In Egyptian Archaeology. Oxford: Oxford University Press.

Lucas, A. 1962. *Ancient Egyptian Materials and Industries*. Edited by J. R. Harris. 4th ed. London: Edward Arnold.

Lucas, Alfred. 1909. "Notes on the Composition of Some Ancient Egyptian Materials." *The Cairo Scientific Journal* 3.

———. 1924. "The Use of Chemistry in Archaeology." *The Cairo Scientific Journal* 12.

Martinón-Torres, Marcos, and David Killick. 2015. "Archaeological Theories and Archaeological Sciences." In *The Oxford Handbook of Archaeological Theory*, edited by Andrew Gardner, Mark Lake, and Ulrike Sommer. Vol. 1. Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199567942.013.004>.

Martinón-Torres, Marcos, and Thilo Rehren. 2016. *Archaeology, History and Science: Integrating Approaches to Ancient Materials*. London: Routledge. <http://www.tandfebooks.com/isbn/9781315433578>.

Middleton, A. P., S. Paynter, Michael S. Tite, I. Kakoulli, Andrew J. Shortland, Ian C. Freestone, and Thilo Rehren. 2009. *From Mine to Microscope: Advances in the Study of Ancient Technology*. Oxford: Oxbow Books.

Miller, Heather Margaret-Louise, ed. 2009. *Archaeological Approaches to Technology*. Walnut Creek: Left Coast Press.

Miniaci, Gianluca, Juan Carlos Moreno García, Stephen Quirke, and Andréas Stauder. 2018. *The Arts of Making in Ancient Egypt: Voices, Images, and Objects of Material Producers 2000-1550 BC*. Leiden: Sidestone. <https://www.sidestone.com/books/the-arts-of-making-in-ancient-egypt>.

Müller, Miriam, ed. 2015. *Household Studies in Complex Societies: (Micro) Archaeological and Textual Approaches: Papers from the Oriental Institute Seminar Household Studies in Complex Societies, Held at the Oriental Institute of the University of Chicago, 15-16 March 2013*. Oriental Institute Seminars, number 10. Chicago, Illinois: The Oriental Institute of the University of Chicago.

Nicholson, Paul T. 2015. "Materials and Technology." in Shaw, I. And Bloxham, E. (eds.) *The Oxford Handbook of Egyptology*. <https://doi.org/10.1093/oxfordhb/9780199271870.013.15>.

Nicholson, Paul. 2017. "Pottery Production in Egypt: The Chaîne Opératoire as a Heuristic Tool." *Studies in Ancient Art and Civilization* 21: 25–52.

Nicholson, Paul T., and Ian Shaw. 2000. *Ancient Egyptian Materials and Technology*. Cambridge: Cambridge University Press.

Petrie, William Matthew Flinders. 1940. *Wisdom of the Egyptians*. London: British School of Archaeology in Egypt, Bernard Quaritch Ltd. https://ia601507.us.archive.org/6/items/WisdomOfTheEgyptians_201903/Wisdom%20of%20the%20Egyptians.pdf.

Shaw, Ian. 1998. "Egyptian Patterns of Urbanism. A Comparison of Three New Kingdom Settlement Sites." In *Proceedings of the Seventh International Congress of Egyptologists, Cambridge, 3-9 September 1995*, edited by C. J. Eyre, 1049–60. Leuven: Peeters.

———, 'Ideal homes in ancient Egypt: the archaeology of social aspiration', *Cambridge Archaeological Journal* 2/2 (October 1992), 147-166.

———, 2012. The archaeology of refuse disposal in New Kingdom Egypt: patterns of production and consumption at el-Amarna, *Talanta* (Proceedings of the Dutch Archaeological and Historical Society) 2012, vol. XLIV, Special Research Issue, 315-333.

———. 2012. *Ancient Egyptian Technology and Innovation: Transformations in Pharaonic Material Culture*. London: Bloomsbury.

———. 2017. “Technology in Transit: The Borrowing of Ideas in Science and Craftwork.” In *Pharaoh's Land and beyond: Ancient Egypt and Its Neighbors*, edited by Richard H. Wilkinson and Pearce Paul Creasman, 167–80, 311–12. New York: Oxford University Press.

Shortland, Andrew J., ed. 2001. *The Social Context of Technological Change: Egypt and the Near East, 1650-1550 BC. Proceedings of a Conference Held at St. Edmund Hall, Oxford 12-14 September 2000*. Oxford: Oxbow Books. <http://www.jstor.org/stable/j.ctt1kw299c>.

Vivas Sainz, Inmaculada. 2017. “Egyptian Artists in the New Kingdom: Travelling Artists and Travelling Ideas?” In *Current Research in Egyptology 2016: Proceedings of the Seventh Annual Symposium; Jagiellonian University, Krakow, Poland, 4-7 May 2016*, edited by Joanna Dębowska-Ludwin, Karolina Rosińska-Balik, Carl Walsh, and Julia M. Chyla, 107–20. Oxford; Philadelphia: Oxbow Books.

Zakrzewski, Sonia R., Andrew J. Shortland, and J. Rowland. 2016. *Science in the Study of Ancient Egypt*. Routledge Studies in Egyptology. New York, NY: Routledge/Taylor & Francis Group.

b) Wirtschaftsgeschichte:

Endesfelder, E. 1982. “Zur Wirtschaftsgeschichte des Alten Ägypten.” *Orientalistische Literaturzeitung* 77 (5): 437–41.

Herrmann, Joachim, and Irmgard Sellnow. 1982. *Produktivkräfte Und Gesellschaftsformationen in Vorkapitalistischer Zeit*. Vol. 12. Veröffentlichungen Des Zentralinstituts Für Alte Geschichte Und Archäologie Der Akademie Der Wissenschaften Der DDR. Berlin: Akademie-Verlag.

Teodoro, Micòl di. 2018. *Labour Organisation in Middle Kingdom Egypt*. Vol. 7. Middle Kingdom Studies. London: Golden House.

c) Arbeitersiedlungen:

Andreu, Guillemette. 2006. “À La Recherche d’ateliers de Sculpteurs à Deir El-Médineh.” In *Living and Writing in Deir El-Medine: Socio-Historical Embodiment of Deir El-Medine Texts*, edited by Tobias Hofmann and Andreas Dorn, 9–19. Basel: Schwabe.

Arnold, Felix. 1998. “Die Priesterhäuser Der Chentkaues in Giza: Staatlicher Wohnungsbau Als Interpretation Der Wohnvorstellungen Für Einen ‘Idealmenschen’.” *Mitteilungen Des Deutschen Archäologischen Instituts, Abteilung Kairo* 54: 1–17.

Bomann, Ann. 1986. “Building 250: A Set of Animal Pens.” In *Amarna Reports III*, edited by A. Bomann, A. Boyce, P. French, Salvatore Garfi, H. M. Hecker, L. Hulin, Barry J. Kemp, et al., 34–49. London: Egypt Exploration Society.

———. 1987. “Building 200: Animal Pens and Plant Beds.” In *Amarna Reports IV*, edited by A. Bomann, Salvatore Garfi, L. Heidorn, Barry J. Kemp, P. Nicholson, A. C. Renfrew, P. J. Rose, et al., 47–55. London: Egypt Exploration Society.

Bussmann, Richard. 2004a. “Die Pyramidenstädte: Siedlungsarchäologie im Schatten der Pyramiden.” In *Die Pyramiden Ägyptens - Monumente Der Ewigkeit: Schloß Schallaburg, 1. Mai Bis 1. November 2004*, edited by Christian Hölzl, 167–73. Wien: Brandstätter.

———. 2004b. “Siedlungen Im Kontext der Pyramiden des Alten Reiches.” *Mitteilungen Des Deutschen Archäologischen Instituts, Abteilung Kairo* 60: 17–39.

Conard, Nicholas J., and Mark Lehner. 2001. “The 1988/1989 Excavation of Petrie’s ‘Workmen’s Barracks’ at Giza.” *Journal of the American Research Center in Egypt* 38: 21–60.

Cotelle Michel, Laurence. 2002. *Les Artistes de Pharaon: Deir El-Médineh et La Vallée Des Rois*. Vol. 341. Le Petit Journal Des Grandes Expositions. Paris: Réunion des Musées Nationaux.

- Davies, Benedict G. 1999. *Who's Who at Deir El-Medina: A Prosopographic Study of the Royal Workmen's Community*. Vol. 13. Egyptologische Uitgaven. Leiden: Nederlands Instituut voor het Nabije Oosten. <http://www.nino-leiden.nl/publications.aspx?id=10>.
- . 2018. *Life within the Five Walls: A Handbook to Deir El-Medina*. Wallasey: Abercromby Press.
- Demarée, Robert J. 2016. "The Workmen Who Created the Royal Tombs." In *The Oxford Handbook of the Valley of the Kings*, edited by Kent R. Weeks and Richard H. Wilkinson, 75–86. Oxford: Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199931637.013.43>.
- Endesfelder, Erika. 2018. *Die Arbeiter der Thebanischen Nekropole im Neuen Reich*. Edited by Gunnar Sperveslage. Vol. 21. Internet-Beiträge Zur Ägyptologie Und Sudanarchäologie. Berlin; London: Golden House Publications.
- Gabler, Kathrin. 2018. *Who's Who around Deir El-Medina: Untersuchungen Zur Organisation, Prosopographie Und Entwicklung Des Versorgungspersonals Für Die Arbeitersiedlung Und Das Tal Der Könige*. Vol. 31. Egyptologische Uitgaven. Leuven: Peeters.
- Gobeil, Cédric. 2018. "Archaeology in the Archives: A Zir-Area at Deir El-Medina and Its Implications for the Location of the Khetem." In *Outside the Box: Selected Papers from the Conference "Deir El-Medina and the Theban Necropolis in Contact" Liège, 27–29 October 2014*, edited by Andreas Dorn and Stéphane Polis, 191–216. Liège: Presses Universitaires de Liège.
- Haring, B. J. J., O. E. Kaper, and R. van Walsem. 2014. *The Workman's Progress: Studies in the Village of Deir El-Medina and Other Documents from Western Thebes in Honour of Rob Demarée*. Vol. 28. Egyptologische Uitgaven. Leiden; Leuven: Nederlands Instituut voor het Nabije Oosten; Peeters.
- Haring, B. J. J., K. V. J. van der Moezel, and D. Soliman. 2018. *Decoding Signs of Identity: Egyptian Workmen's Marks in Archaeological, Historical, Comparative and Theoretical Perspective. Proceedings of a Conference in Leiden, 13-15 December 2013*. Vol. 32. Egyptologische Uitgaven. Leiden: Peeters.
- Hawass, Zahi. 1996. "The Workmen's Community at Giza." In *Haus Und Palast Im Alten Ägypten / House and Palace in Ancient Egypt*, edited by Manfred Bietak, 53–67. Wien: Verlag der Österreichischen Akademie der Wissenschaften.
- Kemp, Barry. 2013. *The City of Akhenaten and Nefertiti: Amarna and Its People*. London: Thames & Hudson.
- Kemp, Barry J. 1984. "Patterns of Activity at the Workmen's Village." In *Amarna Reports I*, edited by Barry J. Kemp, viii, 1–13. London: Egypt Exploration Society.
- Kirby, Christopher, Angela Mary Johanne Tooley, and Barry J. Kemp. 1989. "The Excavation of Q48.4." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 15–63. London: Egypt Exploration Society.
- Koltsida, Aikaterini. 2007. "Domestic Space and Gender Roles in Ancient Egyptian Village Households: A View from Amarna Workmen's Village and Deir El-Medina." *British School at Athens Studies* 15: 121–27.
- Kóthay, Katalin Anna. 2002. "Houses and Households at Kahun: Bureaucratic and Domestic Aspects of Social Organization during the Middle Kingdom." In *Mélanges Offerts à Edith Varga: "Le Lotus Qui Sort de Terre,"* edited by Hedvig Györy, 349–68. Budapest: Musée Hongrois des Beaux-Arts.
- Lacovara, Peter. 1996. "Deir El-Ballas and New Kingdom Royal Cities." In *Haus Und Palast Im Alten Ägypten / House and Palace in Ancient Egypt*, edited by Manfred Bietak, 139–47. Wien: Verlag der Österreichischen Akademie der Wissenschaften.

- . 1997a. “Gurob and the New Kingdom ‘Harim’ Palace.” In *Ancient Egypt, the Aegean, and the Near East: Studies in Honour of Martha Rhoads Bell*, edited by Jacke Phillips, 2:297–306. [San Antonio]: Van Siclen Books.
- . 1997b. *The New Kingdom Royal City*. Studies in Egyptology. London and New York: Kegan Paul International.
- Lansing, Ambrose. 1918. “The Egyptian Expedition 1916-17: Excavations at the Palace of Amenhotep III at Thebes.” *Bulletin of the Metropolitan Museum of Art* 13 (3, supplement): 8–14. <https://doi.org/10.2307/3254041>.
- Lehner, Mark. 2002. “The Pyramid Age Settlement of the Southern Mount at Giza.” *Journal of the American Research Center in Egypt* 39: 27–74.
- Mandeville, Richard. 2014. *Wage Accounting in Deir El-Medina*. Wallasey: Abercromby Press.
- Mazzone, David. 2017. “The Dark Side of a Model Community: The ‘Ghetto’ of El-Lahun.” *The Journal of Ancient Egyptian Architecture* 2: 19–54.
- Meskell, Lynn. 2000. “Spatial Analyses of the Deir El-Medina Settlement and Necropoleis.” In *Deir El-Medina in the Third Millennium AD: A Tribute to Jac. J. Janssen*, edited by R. J. Demarée and A. Egberts, 259–75. Leiden: Nederlands Instituut voor het Nabije Oosten.
- Miller, Robert. 1987. “Flaked Stone from the Workmen’s Village.” In *Amarna Reports IV*, edited by A. Bomann, Salvatore Garfi, L. Heidorn, Barry J. Kemp, P. Nicholson, A. C. Renfrew, P. J. Rose, et al., 144–53. London: Egypt Exploration Society.
- Moeller, Nadine. 2016. *The Archaeology of Urbanism in Ancient Egypt: From the Predynastic Period to the End of the Middle Kingdom*. New York: Cambridge University Press.
- . 2017. “The Foundation and Purpose of the Settlement at Lahun during the Middle Kingdom: A New Evaluation.” In *Essays for the Library of Seshat: Studies Presented to Janet H. Johnson on the Occasion of Her 70th Birthday*, edited by Robert K. Ritner, 183–203. Chicago: The Oriental Institute of the University of Chicago. <https://oi.uchicago.edu/sites/oi.uchicago.edu/files/uploads/shared/docs/Publications/SAOC/saoc70.pdf>.
- Saidi, Ibrahim M. el-, and Ann Cornwell. 1986. “Work inside the Walled Village.” In *Amarna Reports III*, edited by A. Bomann, A. Boyce, P. French, Salvatore Garfi, H. M. Hecker, L. Hulin, Barry J. Kemp, et al., 1–33. London: Egypt Exploration Society.
- Saidi, Ibrahim M. el-, and Robert Miller. 1987. “Work inside the Walled Village (1): South-West Corner.” In *Amarna Reports IV*, edited by A. Bomann, Salvatore Garfi, L. Heidorn, Barry J. Kemp, P. Nicholson, A. C. Renfrew, P. J. Rose, et al., 1–16. London: Egypt Exploration Society.
- Soliman, Daniel. 2018. “Duty Rosters and Delivery Records Composed with Marks and Their Relation to the Written Administration of Deir El-Medina.” In *Decoding Signs of Identity: Egyptian Workmen’s Marks in Archaeological, Historical, Comparative and Theoretical Perspective. Proceedings of a Conference in Leiden, 13-15 December 2013*, edited by B. J. J. Haring, D. Soliman, and K. V. J. van der Moezel, 155–90. Leiden: Peeters.
- Spence, Kate. 2004. “The Three-Dimensional Form of the Amarna House .” *Journal of Egyptian Archaeology* 90: 123–52.**
- Sweeney, Deborah. 2018. “Keeping Goats, (Sheep?), And Pigs at Deir El-Medîna.” *Journal of the American Research Center in Egypt* 54: 161–74. <https://doi.org/10.5913/jarce.54.2018.a013>.
- Teodoro, Micòl di. 2018a. *Labour Organisation in Middle Kingdom Egypt*. Vol. 7. Middle Kingdom Studies. London: Golden House.
- Tietze, Christian. 2015. “Der Bildhauer Thutmoses und sein soziales Umfeld in Amarna.” *Sokar* 31: 38–53.

Toivari-Viitala, Jaana. 2006. "Absence from Work at Deir El-Medina." In *Living and Writing in Deir El-Medine: Socio-Historical Embodiment of Deir El-Medine Texts*, edited by Tobias Hofmann and Andreas Dorn, 155–59. Basel: Schwabe.

Tooley, Angela M. J., and B. J. Kemp. 1987. "Work inside the Walled Village (2): Gate Street 9." In *Amarna Reports IV*, edited by A. Bomann, Salvatore Garfi, L. Heidorn, Barry J. Kemp, P. Nicholson, A. C. Renfrew, P. J. Rose, et al., 30–46. London: Egypt Exploration Society.

Tytus, Robb deP. 1903. *A Preliminary Report on the Re-Excavation of the Palace of Amenhetep III*. New York: Winthrop Press.

Valbelle, Dominique, and Jean-François Gout. 2002. *Les Artistes de La Vallée Des Rois*. Paris: Hazan.

d) Öfen / Pyrotechnologie / Experimentelle Archäologie:

Eccleston, Mark. 2008. "Metalworking at Amarna: A Preliminary Report." *The Bulletin of the Australian Centre for Egyptology* 19: 29–48.

Nicholson, Paul T. 1989a. "Experimental Determination of the Purpose of a 'Box Oven'." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 241–52. London: Egypt Exploration Society.

———. 1989b. "The Pottery Kilns in Building Q48.4." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 64–81. London: Egypt Exploration Society.

———. 1993. "The Firing of Pottery." In *An Introduction to Ancient Egyptian Pottery*, edited by Dorothea Arnold and Janine Bourriau, 103–20. Mainz: Philipp von Zabern.

———. 2009. Pottery Production. *UCLA Encyclopedia of Egyptology*.
<https://escholarship.org/uc/item/1nq7k84p>.

———. 2010. Kilns and Firing Structures. *UCLA Encyclopedia of Egyptology*.
<https://escholarship.org/uc/item/47x6w6m0>.

———. 2013. "Amarna and the 'Petrie Kilns'." In *Seeing under the Sands of Saqqara. A Scottish Surveyor in Egypt: Geophysics in the Service of Egyptian Archaeology. A Memoir of the Work of Ian J. Mathieson*, edited by Padi Mathieson, 13–15. Edinburgh: Scottish Egyptian Archaeological Trust.

e) Metallurgie:

Eccleston, Mark. 2008. "Metalworking at Amarna: A Preliminary Report." *The Bulletin of the Australian Centre for Egyptology* 19: 29–48.

Gale, N. H., and Z. A. Stos-Gale. 1981. "Ancient Egyptian Silver." *The Journal of Egyptian Archaeology* 67: 103. <https://doi.org/10.2307/3856605>.

Lucas, A. 1900. "Analysis of Bronze and Copper Objects." *Annales Du Service Des Antiquités de l'Égypte* 1: 287–88.

———. 1927. "Copper in Ancient Egypt." *Journal of Egyptian Archaeology* 13: 162–70.
<https://doi.org/10.2307/3853955>.

———. 1928. "Silver in Ancient Times." *Journal of Egyptian Archaeology* 14: 313–19.
<https://doi.org/10.2307/3854308>.

———. 1945. "The Origin of Early Copper." *Journal of Egyptian Archaeology* 31: 96–97.

Rademakers, Frederik W., and Thilo Rehren. 2016. "Seeing the Forest for the Trees: Assessing Technological Variability in Ancient Metallurgical Crucible Assemblages." *Journal of Archaeological Science: Reports* 7: 588–96. <https://doi.org/10.1016/j.jasrep.2015.08.013>.

Rademakers, Frederik W., Thilo Rehren, and Ernst Pernicka. 2017. "Copper for the Pharaoh: Identifying Multiple Metal Sources for Ramesses' Workshops from Bronze and Crucible Remains." *Journal of Archaeological Science* 80: 50–73. <https://doi.org/10.1016/j.jas.2017.01.017>.

Rehren, Thilo. 1996. "Meroitische Eisenobjekte Aus Musawwarat Es Sufra." *Der Antike Sudan. Mitteilungen Der Sudanarchäologischen Gesellschaft Zu Berlin* 5: 19–27.

f) Keramikproduktion:

Arnold, Dean E. 2000. "Does the Standardization of Ceramic Pastes Really Mean Specialization?" *Journal of Archaeological Method and Theory* 7 (4): 333–75. <https://doi.org/10.1023/A:1026570906712>.

Arnold, Dorothea, and Janine Bourriau. 1993. *An Introduction to Ancient Egyptian Pottery*. Vol. 17. Sonderschrift, Deutsches Archäologisches Institut, Abteilung Kairo. Mainz: Philipp von Zabern.

Aston, David A., Hans Mommsen, Penelope Mountjoy, Edgar B. Pusch, and Thilo Rehren. 2007. "Die In- Und Ausländischen Werkstoffe Der Grabung Qantir in Wort Und Bild." In *Die Keramik Des Grabungsplatzes Q I. Teil 2: Schaber - Marken - Scherben*, edited by Edgar B. Pusch, 509–67. Hildesheim: Gerstenberg.

Eccleston, Mark A J. 2002. "Early and Mid-Holocene Ceramics from the Dakhleh Oasis: Macroscopic, Petrographic and Technological Descriptions." In *Egypt and Nubia: Gifts of the Desert*, edited by Renée Friedman, 62–73. London: British Museum Press.

Nicholson, Paul. 2017. "Pottery Production in Egypt: The Chaîne Opératoire as a Heuristic Tool." *Studies in Ancient Art and Civilization* 21: 25–52.

Nicholson, Paul T. 1989. "The Pottery Kilns in Building Q48.4." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 64–81. London: Egypt Exploration Society.

———. 1993. "The Firing of Pottery." In *An Introduction to Ancient Egyptian Pottery*, edited by Dorothea Arnold and Janine Bourriau, 103–20. Mainz: Philipp von Zabern.

———. 2009. Pottery Production. *UCLA Encyclopedia of Egyptology*. <https://escholarship.org/uc/item/1nq7k84p>.

Rose, Pamela J. 1989. "The Evidence for Pottery Making at Q48.4." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 82–101. London: Egypt Exploration Society.

g) Skulptur:

Connor, Simon. 2018. "Sculpture Workshops: Who, Where and for Whom?" In *The Arts of Making in Ancient Egypt: Voices, Images, and Objects of Material Producers 2000-1550 BC*, edited by Juan Carlos Moreno García, Stephen Quirke, Gianluca Miniaci, and Andréas Stauder, 11–30. Leiden: Sidestone. <https://www.sidestone.com/books/the-arts-of-making-in-ancient-egypt>.

Phillips, Jacke. 1991. "Sculpture Ateliers of Akhetaten: An Examination of Two Studio-Complexes in the City of the Sun-Disk." *Amarna Letters* 1: 31–40.

———. 2004. "How to Build a Body without One: Composite Statues from Amarna." In *Invention and Innovation: The Social Context of Technological Change 2: Egypt, the Aegean and the Near East, 1650-1150 BC. Proceedings of a Conference Held at the McDonald Institute for Archaeological Research, Cambridge, 4-6 September 2002*, edited by Janine Bourriau and Jacke Phillips, 200–214. Oxford: Oxbow Books.

Thompson, Kristin. 2010. "Concrete Evidence on Amarna Composite Statuary." *Egyptian Archaeology* 36: 38–39.

———. 2017. “Were Components of Amarna Composite Statues Made in Separate Workshops?” In *Proceedings of the XI International Congress of Egyptologists, Florence Egyptian Museum, Florence, 23-30 August 2015*, edited by Maria Cristina Guidotti and Gloria Rosati, 626–32. Oxford: Archeopress.

h) Steinbrüche / Bergbau:

Bloxam, Elizabeth. 2005. “The Organisation and Mobilisation of Old Kingdom Quarry Labour Forces at Chephren’s Quarry (Gebel El-Asr) Lower Nubia.” In *Current Research in Egyptology II: January 2001*, edited by Ashley Cooke and Fiona Simpson, 11–19. Oxford: Archaeopress.

Jameson, Robert, Paul T. Nicholson, Pamela J. Rose, and Ian Shaw. 2010. *Hatnub: Quarrying Travertine in Ancient Egypt*. Vol. 88. Egypt Exploration Society, Excavation Memoir. London: Egypt Exploration Society.

Shaw, Ian. 2013. “We went forth to the Desert Land...”: Retracing the Routes between the Nile Valley and the Hatnub Travertine Quarries. In: Förstner, F. and Riemer, H. (eds.) *Desert Road Archaeology in Ancient Egypt and Beyond*. Köln: Heinrich-Barth.

Shaw, Ian, and Paul T. Nicholson, eds. 2010. *Hatnub: Quarrying Travertine in Ancient Egypt*. Excavation Memoir 88. London: Egypt Exploration Society.

i) Glasartige Materialien

1) allgemein:

Jackson, Caroline M., and Emma C. Wager. 2008. *Vitreous Materials in the Late Bronze Age Aegean*. Vol. 9. Sheffield Studies in Aegean Archaeology. Oxford; Oakville, CT: Oxbow.

Nicholson, Paul T. 2007. *Brilliant Things for Akhenaten: The Production of Glass, Vitreous Materials and Pottery at Amarna Site O45.1*. Vol. 80. Egypt Exploration Society, Excavation Memoir. London: Egypt Exploration Society.

———. 2015. “Glass and Vitreous Materials at Tell El-Amarna.” In *Proceedings of the Tenth International Congress of Egyptologists: University of the Aegean, Rhodes. 22-29 May 2008*, edited by P. Kousoulis and N. Lazaridis, 2:1759–68. Leuven: Peeters.

2) Glas

Degryse, P., A. Boyce, N. Erb-Sattullo, K. Eremin, S. Kirk, R. Scott, A. J. Shortland, J. Schneider, and M. Walton. 2010. “Isotopic Discriminants between Late Bronze Age Glasses from Egypt and the Near East.” *Archaeometry* 52 (3): 380–88. <https://doi.org/10.1111/j.1475-4754.2009.00487.x>.

Henderson, Julian. 2013. *Ancient Glass*. Cambridge: Cambridge University Press.

Hodgkinson, Anna K. 2015. “Archaeological Excavations of a Bead Workshop in the Main City at Tell El-Amarna.” *Journal of Glass Studies* 57: 279–84. (Glas, aber auch Faience)

Molina, G., G. P. Odin, T. Pradell, A. J. Shortland, and M. S. Tite. 2014. “Production Technology and Replication of Lead Antimonate Yellow Glass from New Kingdom Egypt and the Roman Empire.” *Journal of Archaeological Science* 41: 171–84. <https://doi.org/10.1016/j.jas.2013.07.030>.

Nicholson, Paul T. 2002. “Glass Production at Amarna: Ancient Technology Replicated.” In *Moving Matters: Ethnoarchaeology in the Near East. Proceedings of the International Seminar Held at Cairo, 7-10 December 1998*, edited by Gerrit van der Kooij and Willeke Wendrich, 103–6. Leiden: CNWS Publications.

———. 2011. Glass Working, Use and Discard. *UCLA Encyclopedia of Egyptology*. <https://escholarship.org/uc/item/2w17t0cw>.

Pusch, Edgar B., Thilo Rehren. 2007. *Hochtemperatur-Technologie in Der Ramses-Stadt: Rubinglas Für Den Pharao*. Vol. 6. 2 vols. Forschungen in Der Ramses-Stadt: Die Grabungen Des Pelizaeus-Museums Hildesheim in Qantir - Pi-Ramesses. Hildesheim: Gerstenberg.

Rehren, Th. 2001. "Aspects of the Production of Cobalt-Blue Glass in Egypt." *Archaeometry* 43 (4): 483–89.

Rehren, Thilo. 2014. "Glass Production and Consumption between Egypt, Mesopotamia and the Aegean." In *Contextualising Grave Inventories in the Ancient Near East: Proceedings of a Workshop at the London 7th ICAANE in April 2010 and an International Symposium in Tübingen in November 2010, Both Organised by the Tübingen Post-Graduate School "Symbols of the Dead,"* edited by Peter Pfälzner, Ernst Pernicka, Herbert Niehr, Sarah Lange, and Tina Köster, 217–23. Wiesbaden: Harrassowitz.

———. 2016. "Another Order for Glass – or: How Much Glass Does Pharaoh Need?" In *Mit Archäologischen Schichten Geschichte Schreiben: Festschrift Für Edgar B. Pusch Zum 70. Geburtstag*, edited by Thilo Rehren, Regine Schulz, and Henning Franzmeier, 255–67. Hildesheim: Gebrüder Gerstenberg.

Shortland, A. J. 2009. "The Fish's Tale: A Foreign Glassworker at Amarna?" In *From Mine to Microscope: Advances in the Study of Ancient Technology*, edited by Ian C. Freestone, A. P. Middleton, S. Paynter, Thilo Rehren, Andrew J. Shortland, Michael S. Tite, and I. Kakoulli, 109–14. Oxford: Oxbow Books.

Shortland, Andrew J. 2012. *Lapis Lazuli from the Kiln: Glass and Glassmaking in the Late Bronze Age*. Studies in Archaeological Sciences 2. Leuven: Leuven University Press.

Stern, E. Marianne, and Birgit Schlick-Nolte. 1994. *Early Glass of the Ancient World: 1600 B.C.-A.D. 50: Ernesto Wolf Collection*. English ed. Ostfildern: New York, N.Y: Verlag Gerd Hatje; Distributed in the USA by D.A.P.

3) Faience:

Boyce, Andrew. 1989. "Notes on the Manufacture and Use of Faience Rings at Amarna." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 160–68. London: Egypt Exploration Society.

Eccleston, Mark. 2008. "Replicating Faience in a Bread Oven at Amarna." *Egyptian Archaeology* 32: 33–35.

Miniaci, Gianluca. 2018. "Faience Craftsmanship in the Middle Kingdom, a Market Paradox: Inexpensive Materials for Prestige Goods." In *The Arts of Making in Ancient Egypt: Voices, Images, and Objects of Material Producers 2000-1550 BC*, 139–58. Leiden: Sidestone.

Nicholson, Paul T. 2009. Faience Technology. *UCLA Encyclopedia of Egyptology*.
<https://escholarship.org/uc/item/9cs9x41z>.

Tite, M. S., P. Manti, and A. J. Shortland. 2007. "A Technological Study of Ancient Faience from Egypt." *Journal of Archaeological Science* 34 (10): 1568–83.
<https://doi.org/10.1016/j.jas.2006.11.010>.

j) Andere Materialklassen

Kemp, Barry J., Gillian Vogelsang-Eastwood, Andrew Boyce, Herbert G. Farbrother, Gwilym Owen, and Pamela Rose. 2001. *The Ancient Textile Industry at Amarna*. Vol. 68. Egypt Exploration Society, Excavation Memoir. London: Egypt Exploration Society.

Killen, Geoffrey. 2017. *Ancient Egyptian Furniture*. 2nd ed. 3 vols. Oxford; Philadelphia: Oxbow Books.

Lucas, A. 1932. "The Use of Natron in Mummification." *Journal of Egyptian Archaeology* 18 (3/4): 125–40. <https://doi.org/10.2307/3854973>.

Samuel, Delwen. 1989. "Their Staff of Life: Initial Investigations on Ancient Egyptian Bread Baking." In *Amarna Reports V*, edited by A. D. Boyce, A. Buckley, A. Galal, Barry J. Kemp, C. J. Kirby, M. D. S. Mallinson, I. J. Mathieson, et al., 253–90. London: Egypt Exploration Society.

Wendrich, Willemina. 1999. *The World According to Basketry: An Ethno-Archaeological Interpretation of Basketry Production in Egypt*. Vol. 83. CNWS Publications. Leiden: Research School of Asian, African and Amerindian Studies (CNWS), Univ. Leiden.

Ziele des Kurses: - eine regelmässige Meditationspraxis entwickeln - Entspannung und Ruhe in dein Leben bringen - verschiedenen Meditationen (zB Atemmeditationen, Achtsamkeitsmeditationen und Traumreisen) kennenlernen - die innere Welt kennenlernen und hineinwachsen. Die Meditationen werden ab dieser Woche aufgezeichnet und dir als Aufnahme zur Verfügung gestellt, sodass du die Meditation wiederholen kannst so oft du magst, oder sie anschauen kannst, wenn du es Mittwochs mal nicht schaffst. Da Meditation etwas so wichtiges in unserer heutigen Gesellschaft ist, biete ich diese 45 minütigen Meditation... Dann starten wir einmal mit unserer Meditation heute. Und dann setze ich einmal für dich komfortabel hin. Was ist nicht Inhalt des Kurses? Hardwarenahe Programmierung von Grafikprozessoren Hybrid-parallele Anwendungen Folie 5 Guido Juckeland. Page 1 and 2: Zentrum für Informationsdienste un. Page 3: Motivation - Jeder hat einen Graf. Page 7 and 8: Systemaufbau CPU Grafikkarte GPU Ha. Page 9 and 10: Warum nicht schon früher? - Man.