

Introduction

CONCEIVING THE ANTHROPOLOGY
OF THE FETUS

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To say that the human fetus is a topic of especially vital interest today is an understatement. From studies in epigenetics suggesting links between fetal biology and adult health, to the sentiments and emotions that ultrasound “baby pictures” can arouse in expectant parents, to the conflicts surrounding abortion care and embryonic stem cell research, fetuses (and embryos) figure significantly in the sciences, culture and society, and politics. The fetus matters in so many dimensions of our experiences and expectations because it is both materially and metaphorically a product of the past, a marker of the present, and an embodiment of the future. Fetuses are the fragile bones discovered in prehistoric and historic graves; the specimens that have been collected, preserved, and studied toward an understanding of human growth and development; and the tissue that is used today in medical and scientific research on health and disease. Fetuses and embryos are what we all once were as biological individuals. They also are the signs or representations of our ideas and ideals held in common and in contest. Though they might be most familiar to readers, particularly in North America, as what anthropologist Lynn Morgan (2009) calls “icons of life,” this is in fact a rather restricted notion of fetuses as conceived within the partic-

ular context of the culture and politics of reproduction in the late twentieth-century United States. In contrast, scholars of religion Vanessa Sasson and Jane Marie Law (2009) remind us that the fetus has been imaged and imagined historically and cross-culturally as more broadly a symbol of “inclusivity, emergence, liminality, and transformation” (3).

A thorough and thoughtful examination of the fetus requires perspectives and approaches that can attest to its complex nature and culture. For this, anthropology is especially well suited. Our discipline’s methodological and theoretical frameworks enable us to approach fetuses and embryos as always biological *and* cultural *and* social. Indeed, we use the terms “fetus” and “embryo” advisedly here. While the terms have been defined as different stages of development or “becoming,” they also frequently have been understood as different entities or “beings.” As anthropologists, we are able to acknowledge and account for the contemporary, historical, and prehistorical ideas, practices, and processes by which fetuses and embryos are conceived and constructed as material and metaphorical bodies. Yet, when we turn toward the literature, we find not an anthropology of fetuses but various anthropologies of fetuses that have yet to come into conversation with one another.

From the vantage point of biological anthropology, the human fetus is a body of interest within the broader context of primate biology (Clancy et al. 2013). It provides evidence of the health of populations, especially of the biological consequences of social conditions and constraints, in particular maternal stressors. Recent biological research on fetal growth and development in connection with adult biology and health—what is called the developmental origins paradigm—also can be translated into changes in future practice and policy (see Rutherford, chapter 1). In archaeology and bioarchaeology, the study of fetuses has been included within a consideration of infants and children for the insights they might offer on the cultural practices and social ideas of the peoples of the past (Lewis 2007; Scott 1999). Cultural anthropology has focused on the social uses and cultural meanings of fetal images, including in medical anthropologist Janelle Taylor’s *The Public Life of the Fetal Sonogram* (2008) and Lisa Mitchell’s *Baby’s First Picture: Fetal Ultrasound and the Politics of Fetal Subjects* (2001). Two recent books taking social and cultural approaches to the study of fetuses include medical anthropologist Lynn Morgan’s *Icons of Life: A Cultural History of Human Embryos* (2009) and historian Sara Dubow’s prize-winning account, *Ourselves Unborn: A History of the Fetus in Modern America* (2011),

which present detailed historical accounts that emphasize that scientific knowledge of fetal biology is itself the product of cultural and social processes.

The present volume aims to begin a discussion about the human fetus that reaches across the fields of anthropology and includes other disciplines. This book presents the recent and continuing work of anthropologists working in sites from North Africa to Europe to Asia to North America and concerned with the human fetus as an entity of biological, cultural, and social significance. While each chapter is grounded in the particular concerns of specialists in archaeology, biological anthropology, cultural anthropology, and linguistic anthropology, taken as a whole, they present a perspective on the human fetus that is biosocial/biocultural, historical, and cross-cultural—in a word, holistic. Readers will find that they are already familiar with some of the material, but some of it will be new to them, especially when coming from outside their fields of specialization. For example, bioarchaeologists likely are aware of the topics covered in chapters 4 and 5, which might be unfamiliar to cultural anthropologists. Speaking from our own experiences as a cultural anthropologist and two bioarchaeologists collaborating on this volume, we encourage readers to step out of their comfort zones and read “across” the discipline. The reward will be not only to discover the work of anthropologists in other subfields but also to connect it to (and integrate into) their own research.

In anthropology, holism is frequently upheld as an ideal, yet it is a challenge in practice. The goal of this volume is to provide readers with a multifaceted understanding of fetuses, how they are conceptualized, and how they matter as objects and subjects of study, doing so using a four-fields of anthropology approach. The chapters are organized to explore and examine the themes of biology, culture, and society and of past, present, and future. Part I includes chapters that introduce the biological, sociocultural, and archaeological significance of fetuses. The following two sections address fetuses in the past and fetuses in the present and future. Because the book is intended as a resource for scholars both outside and inside anthropology, the authors have attempted to write in clear and concise language that is accessible to readers regardless of their particular specialization, taking care to describe and explain the methods and theories that guide our practice as archaeologists, biological anthropologists, and cultural anthropologists. In addition, a glossary of key terms and concepts appears at the end of the book. In all of the chapters, the authors address a common set of questions:

- 1) What is a fetus? How is it defined and conceptualized in a particular field of study?
- 2) What methodological approaches are used—and challenged—in studying fetuses?
- 3) What does a study of fetuses in a given field contribute not only to scholarship in other fields but also to public concerns such as reproductive policies and practices?

The chapters here represent a range of responses to these questions, which reflect a range of concerns. How the fetus is defined is shaped by the particular modes of inquiry and practice in any given field of study. By laying bare these varied concepts, we can arrive at a more complete and nuanced understanding not only of fetuses but also of the methods, approaches, and perspectives that we might bring to their study.

For biological anthropologist Julienne Rutherford, the fetus is a biological entity with labile boundaries. In her chapter, “The Borderless Fetus: Temporal Complexity of the Lived Fetal Experience,” Rutherford notes the fetus is an individual with its own genome, but that genome is the collaborative output of two other individuals, which in turn exponentializes into past generations. She also describes how the watery world in which a fetus develops has a temporal signature that reaches into the past and extends beyond gestation. In addition, the fetus as an entity does not exist without its placenta, an extrasomatic organ that must be conceptually incorporated with the fetus as the biological bridge between generations. According to Rutherford—who has conducted research with marmoset monkeys and vervet monkeys in addition to humans—a biological view of the fetal experience restricted to the time and space of the fetus’s body alone is inadequate to fully situate individuals, communities, and species within the intergenerational ecologies they create and inhabit. Framing the fetus as both the fruit of previous generations and the seed from which future generations grow thus gives rise to a biology of life history that is Moëbian rather than linear. In short, Rutherford suggests the need for an understanding of the fetus that is both more expansive and inclusive.

In bioarchaeology, the fetus represents both a biological entity that can inform about past health and lifestyle but also a sociocultural being that can shed light on past cultural practices. While small and often incomplete, fetal skeletal remains can aid anthropologists in interpreting the circumstances within an archaeological population or a forensic setting, argues biological anthropologist Kathleen

Blake. In her chapter, “The Biology of the Fetal Period: Interpreting Life from Fetal Skeletal Remains,” Blake describes both how to look and what we learn from looking at fetal remains. As the authors of the other chapters also suggest, Blake maintains it is a misconception that fetal remains do not survive well. Rather, the absence of fetal remains from an archaeological site is likely due to cultural burial practices. From the perspective of biologists, the fetal stage can be defined as a time of development and growth from the embryonic period until birth. During this phase, processes can be influenced by internal and external factors, including the overall health of the mother, genetic disorders, retardation of growth and development, and hormonal influences. By studying fetal remains, we can infer important information about the health and well-being of the mother and the cultural practices, disease prevalence rates, and other patterns within the community. While traits like biological sex cannot be determined with consistent accuracy, the assessment of population variants and trends might enable us to see patterns associated with sexes. A consideration of fetal remains thus might contribute to correcting our interpretations about identity, burial patterns, and gender analyses. Additionally, it can assist forensic researchers in differentiating between naturally occurring conditions and pathology.

Taking the question of what is a fetus in another direction, cultural anthropologist Sallie Han considers the quandary of what to call “it” in the first place. To refer to a fetus, a baby, or a child is to refer not only to it in its material existence but also to the social relations that surround it. In her chapter, “Pregnant with Ideas: Concepts of the Fetus in the Twenty-First-Century United States,” Han suggests that to define a fetus is also to describe what is a pregnancy and what is a pregnant woman. She traces shifts in the characterization of the fetus in the United States over the past thirty years, with fetuses characterized as vulnerable (and pregnancies as conflicted and tentative) during the 1980s and then, with the ritual and routine use of imaging technologies in prenatal medical care, imagined as lively and requiring the prenatal parenting and developmental stimulus of “belly talk” during the 1990s. While an understanding of the fetus and of pregnancy as bare facts of biological life is taken for granted in the United States today, Han reminds us that this itself is an effect of particular historical and social processes. At other times and in other places, where and when fetuses do appear, they are not necessarily ascribed with the same moral, political, or scientific and medical importance and meaning.

Finding Fetuses in the Past

The work of archaeologists and bioarchaeologists particularly illustrates the importance and necessity of considering the questions of what is a fetus and the related questions about how to study it that all scholars must address. Siân Halcrow, Nancy Tayles, and Gail Elliott discuss the methodological approaches—and challenges—of undertaking a bioarchaeology of fetuses, which they situate in a broader field of study on children or subadults that has emerged in archaeology and bioarchaeology during the past two decades. Surveying the literature in bioarchaeology, they consider a range of concerns, from the uses of different terms (such as infants, newborns, neonates, and perinates) to the exclusion of infants, especially newborns or neonates (by communities themselves). Because it is, in fact, very rare to find remains in utero in an archaeological context (e.g., enclosed within the skeletal remains of the mother), the authors note that bioarchaeologists are effectively using preterm and low birth weight, full-term babies from bioarchaeological samples as proxies for fetuses. Nevertheless, Halcrow, Tayles, and Elliott argue that with the development of a robust bioarchaeology of fetuses, there is much to be gained in terms of investigations of infant care, including their feeding and weaning; diet, growth, development, and mortality; patterns of health and disease and of biocultural change; and larger cultural practices and ideas.

Examining perinatal remains from past contexts in order to identify skeletal pathology presents a number of challenges, which bioarchaeologist Mary Lewis reviews in her chapter, “Fetal Paleopathology: An Impossible Discipline?” This chapter is especially recommended for specialists in archaeology and bioarchaeology and for other scholars interested in becoming familiar with the methods and analysis of fetal skeletal remains. The chapter reviews how skeletal features—specifically, pathological lesions—can be recognized and used to identify a cause of death that provides insight into the conditions in which individuals might have lived and died. Because the majority of perinates likely died of infectious or congenital conditions, Lewis contends it is critical to develop criteria in order to distinguish pathological lesions from those resulting from the normal growth process. Also, while fetal remains recovered from the pelvic cavities of female graves hint at obstetric hazards, individual perinatal burials have the potential to tell us much about the health of the fertile maternal population, as well as the environmental factors that affect the survival of newborns.

It is frequently claimed that a focus on the fetus is a development of the modern world. According to this logic, the social “value” of children is connected historically with changing conditions that eventually lead to better health—for example, reductions in the risks that childbearing and childbirth pose to women and improvements in pregnancy outcomes—and a culture of expectation that children will be born living, survive, and even thrive into adulthood. Another claim is that the use of modern imaging technologies has cultivated an affective view of the fetus, as when sonograms are seen as occasions for expectant parents to see and “bond” with their expected children—or when ultrasound scans are made mandatory for women seeking abortion care (see Howes-Mischel, chapter 11). However, whether children were less valued in the past can be disputed, based on ancient archaeological evidence. Jacek Kabaciński, Agnieszka Czekaj-Zastawny, and Joel Irish (“The Neolithic Infant Cemetery at Gebel Ramlah in Egypt’s Western Desert”) describe their research on what appears to be the oldest known cemetery set aside specifically for infants. Among the remains—which have been dated between 4700 and 4350 BCE—are those surmised to have belonged to perinates. The authors contend that the existence of the cemetery is evidence of the status ascribed to infants and possibly perinates, which appear to have been not only treated with respect (in terms of burial) but also considered rightful members of the group. It suggests inclusivity, regardless of age, which they hypothesize might be an element of the complex cultural package brought by late Neolithic desert societies to the Nile Valley, when they were forced to move there because of extremely unfavorable climatic conditions. The authors also suggest a connection to the social developments of local Nile Valley groups, which led to the emergence of the Egyptian state. For Kabaciński, Czekaj-Zastawny, and Irish, this examination of an ancient cemetery for infants provides insight not only into the historical and cross-cultural diversity of ideas and practices surrounding children but also into a prehistory of significance.

What fetuses are, significantly, are cultural artifacts from which we can infer various insights into the practices and ideas of the individuals and communities that imagine, bear, care for, and preserve or dispose of them. This is true in our understanding of the past as well as the present. For archaeologists and bioarchaeologists today, the treatment of the dead represents evidence of life in the past. The meaning of a life (and a death) is made; it becomes ascribed through the deliberate efforts of which we see traces in the mor-

tuary contexts uncovered by archaeologists and bioarchaeologists. Whether—and how—the bodies of individuals, young and old, are treated at death reflects ideas about who the dead were or more particularly what they meant to the living, as Amy Scott and Tracy Betsinger demonstrate in their chapter, “Excavating Identity: Burial Context and Fetal Identity in Postmedieval Poland.” Although the skeletal remains of fetuses have often been excluded from archaeological analyses because of their poor preservation and/or misidentification, Scott and Betsinger assert the burial treatment of fetuses provides a unique opportunity to investigate what they call fetal identity. Scott and Betsinger discuss the skeletal remains of individuals, ranging in age from six months in utero to four years, who were recovered from a Polish cemetery dating to the seventeenth century. Based on the authors’ examination of various aspects of mortuary context—including coffin use, grave goods, and position within the cemetery—they found no significant differences in the treatment of individuals, suggesting that fetuses were ascribed identity comparable to that of older children. This, Scott and Betsinger suggest, might be related to what they call “potentiality,” or a shared perception about what the individuals would have contributed to the community had they survived.

The Once and Future Fetus

For anthropologists and other researchers and scholars, what fetuses are, significantly, are objects of study. Cultural anthropologists are especially concerned, however, with what fetuses are for the individuals and communities that become interested and invested in them. Ethnographic research enables us to document and detail the cultural ideas and social practices surrounding fetuses and embryos, which are both material and metaphorical, and ascribed with private, public, moral, and political significance.

The uncertainty surrounding embryos “left over” after *in vitro* fertilization (IVF) illustrates all of the above, as Risa Cromer describes in her chapter, “Waiting: The Redemption of Frozen Embryos through Embryo Adoption and Stem Cell Research in the United States.” In 1998, two coinciding events in the United States thrust the growing supply of unused frozen embryos into public controversy—the establishment of the first human embryonic stem cell line *and* the creation of an adoption program for leftover embryos. What could

these putatively opposing solutions for “saving” the remaining IVF embryos have in common? Cromer conducted a twenty-two-month ethnographic study at two primary field sites in California: a Christian embryo adoption program and a university’s stem cell and regenerative medicine institute. Based on her fieldwork, Cromer argues that the remaining frozen embryos themselves are not inherently valuable or controversial, precious or burdensome. Rather, significant efforts at framing, classifying, and otherwise defining what these embryos are transform them into preborn persons, frozen assets, and excess waste; simultaneously, the givers of embryos become parents and sacrificial donors while the recipients of embryos become bearers of responsibility and arbiters of value. Indeed, Cromer finds that not all embryos are considered equal, at either the embryo adoption program or the stem cell research institute. Some embryos are deemed “hot commodities” while others are considered to have “special needs” and, thus, difficult to repurpose so are left “waiting.” These “waiting” embryos illuminate notions of personhood and potential.

Ethnographic examinations of the ideas and practices surrounding fetuses across cultures are especially informative, as demonstrated in Jessica Newman’s chapter on the fetus as presented and represented in Moroccan media and activism and Islamic jurisprudential texts. Her chapter (“Deploying the Fetus: Constructing Pregnancy and Abortion in Morocco”) considers how fetuses figure in local discourses on sexuality and morality, and explores the relationships between the legal, medical, and religious conceptualizations of the fetus in Morocco. The Moroccan penal code outlawing abortion after forty days of gestation (except in cases of grave threat to the mother’s health) is firmly rooted in biomedical understandings of conception and gestation. Yet, Sunni *fiqh* (religious jurisprudence) describes the stages of fetal development in rather vague terms, which make space for other more flexible and fluid understandings of pregnancy. In addition, long-standing medical and spiritual practices concerning contraception, pregnancy, and abortion complicate and inform knowledge about the fetus as a potential citizen, subject, and member of the Muslim faith. In sum, Newman’s account suggests that fetuses in Morocco are the products of competing systems of knowledge.

Religion figures also in Sonja Luehrmann’s “Beyond Life Itself: The Embedded Fetuses of Russian Orthodox Anti-abortion Activism.” In English-language scholarship on the fetus, the ascription of per-

sonhood has been a central concern. Notably, in North American public debate, fetuses are often able to obtain the status of a personal agent by embodying biological life at its barest. In contrast, however, Luehrmann encountered various theological reservations against ascribing individual personhood to unbaptized fetuses during her ethnographic research among Russian Orthodox Christian anti-abortion activists. She found that assigning value to fetuses and asserting their humanity occurs through a process of embedding them in human collectives, such as families, the church, and the nation. As a result, she writes, ritual commemorations of past abortions do not turn the aborted fetus into a named individual that iconically represents life itself but rather represent it as a protosocial being whose membership in threatened human collectives was thwarted—and it is exactly this protosocial quality that makes fetuses effective participants in Russia's politics of reproduction today. In a setting where conservative activists argue that the fabric of the social is itself threatened, fetuses represent the weakest but also most crucial link between a collective's troubled present and its potential futures.

A focus of scholarship on the fetus has been on its visual presence. In "The 'Sound' of Life: Or, How Should We Hear a Fetal 'Voice'?" Rebecca Howes-Mischel turns our attention to its materiality as a body not just to be seen but also to be heard. Combining ethnographic and rhetorical methodologies, her chapter analyzes the cultural constructions of fetal materiality, juxtaposing two instances in which a fetus's audible heartbeat is used to make claims about its "self-evident" presence—one in Ohio during legislative hearings on a bill to restrict access to abortion care and the other in Oaxaca, Mexico, during a routine encounter between an obstetrician and her pregnant patient. As diagnostic technologies (in this case, a fetal Doppler) are used to make social claims about how to recognize fetal presence and how to respond to them, they rely on entangled cultural assumptions about the heart as the biological locus of both energetic and social life and the immediacy and intimacy of sound as a form of public sensing. In addition, they reiterate expectations about forms of "proof" offered by technological mediation that displace women's sensed and bodily relationships with their fetuses as also authoritative. This contrast between the politicized and the ordinary illustrates some of their shared presumptions, through which fetal bodies are made socially recognizable. Ultimately, this analysis highlights how reproductive politics increasingly rely on the enroll-

ment of diagnostic technologies to make social and affective claims about the public sensing of biological materiality.

In sum, the work featured in this volume presents the directions that anthropologists across the fields have been pursuing already and suggests the rich possibilities of conceiving an anthropology of the fetus.

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