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Parasites, Worms,  
*and the Human Body*  
in Religion *and* Culture



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# THE POWER OF PARASITES AND WORMS

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At first glance, worms and parasites may seem an odd subject for a collection of essays on religion and culture. These insignificant beings cannot have had much sway on the grand edifice of human civilization: why then produce such a volume? Why honor the creepy and the crawly with an interdisciplinary body of analyses?

To date, there has not been a concerted effort to bring these creatures out of isolated study in discrete fields like parasitology and literature. Scientific research is rarely juxtaposed to its humanities counterpart. The former tends to disregard cultural variation and the latter can be overly emphatic about difference and historical particularity. This work engages the topic in a broad comparative effort that seeks to elude the twin perils of glossing over divergence and narrowly focusing on peculiarities.

Parasites and worms are perfectly suited to comparative inquiry for two reasons. First, carried by humans across time and space, they have achieved near-omnipresence and have left marks on every community. Inevitably, the biogenic threat they pose has affected, in however great or small a way, the development of those communities. Second, their symbolic power derives from a nearly universal evocation of fear and disgust. Cognizant of their curious figurative potency, J. Z. Smith once identified them as the exemplary “other,” an extreme counterpoint to what we deem familiar and good, and concluded that a discussion of this other is inevitably a discussion of the self.<sup>1</sup> Symbolic use of parasites as “the other” appears cross-culturally as well, but each incarnation speaks to a society’s own social prejudices and insecurities.

As Dr. Alfred C. Reed said, in the study of parasitism “is written the foundation of human history.”<sup>2</sup> This quotation refers to the social parasitism of living off others, but it also brings to mind the intertwining nature of our own past and that of the creatures living within us.

This volume showcases the fascinating interplay between a common experience and its web of related cultural and religious forms. As a collection, it provides an unusual perspective, perhaps a worm’s-eye-view, of these myriad symbolic and living systems.

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### *Definitions*

This volume relies on the limited English words “parasite” and “worm” to represent phenomena found in many cultures and identified by a range of language-specific terms. While acknowledging the particularities of these various terms, this work employs these two glosses for fruitful comparative discussion. “Parasite” denotes a type of relationship while “worm” refers to the creatures that function as parasites or are merely the lowest forms of life.

The history of these two English expressions reveals notable themes for the broader conversation. “Parasite” comes from an ancient Greek word whose meaning broaches the full range of issues addressed in these essays. Originally, it referred to a religious relationship, but over time came to invoke a social one, a biological one, and finally a medical one. This semantic drift affirms that even the etymology of the term bridges the same categories that comprise this present study of parasites. *Parasitos* (παράσιτος) initially meant a priest’s assistant who was fed at the public’s expense. Since they received “on the side” (*para*) their “food/grain” (*sito*), the term developed a negative connotation and came to imply someone who would accept humiliation in exchange for food. It seems that almost from the beginning, this term, with its allusions to subordination and sycophantism, served as an insult, a tendency still preserved in contemporary English.

“Parasite” was not applied to worms and other non-human creatures until the eighteenth and nineteenth centuries, when it was no longer a religious or social term and began to designate a kind of biological connection. First used to describe plants growing on other plants, it gradually included animals living off the nutrients of other animals. A parasite is not, then, a category of “thing,” but of “relationship.” Fittingly, biology classifies creatures as parasites when their method of survival requires such a dependency. They are the living “other” that siphons off and harms the host by taking more than they give. Those most often hosted by humans include bacteria, viruses, molds, fungi, and worms.

All of these parasites are also technically symbiotes, a biological term referring to organisms whose existence is tightly intertwined with that of another. This is a relationship based on an exchange that can either be imbalanced (parasitic) or balanced (mutualistic). Ideally, symbiote should not be conflated with the opposite of “parasite,” as sometimes happens in popular discourse. Parasites are symbiotes, too.<sup>3</sup>

Still, “parasite” is sometimes an overarching gloss for parasitic worms which, depending on the cultural context, can be understood as parasitic, mutualistic, or a mixture of both. One can parse these categories even more finely, delving into parasites that live off their hosts (biotrophs) and those that sterilize, kill, or consume their hosts (necrotrophs). Regardless of sub-categories, “parasite” and its long-linked social and religious meanings reveals the back-story of a particular relationship that appears in diverse contexts beyond the bounds of biology.

Equally important but less etymologically telling are the terms used, not for relationships, but for actual creatures: “worms,” “*vermes*,” or “helminths.” The last is the most technical, referring to parasitic worms that inhabit vertebrates, especially in humans. Like “parasite,” this ancient word derives from the Greek and was first used in archaic medical writings. Helminths are a key focus in this volume, though in some instances they overlap with appearances of other, less visible parasitic creatures such as bacteria, viruses, even demons. The term “worm” is not narrow in meaning; historically, along with its Latin counterpart, *vermes*, it has indicated bugs, vermin, snakes, and dragons, but most often here, it points to invasive creatures that breach boundaries.

In this volume, worms hold equal importance with parasites because, parasitic or not, they are on the lowest rung of living creatures and perceived as anathema to humanity. Cultural, religious, and even medical meanings often blend their terminology and, by extension, categories, e.g., “parasites” popularly refers to parasitic worms, and not bacteria. This vagueness of classification factors greatly into comparisons because in different contexts and languages, one meaning or signifier may prevail. The inclusion of both terms hopes to cover the phenomenon more comprehensively.

### *Goals and Scope of this Volume*

Persistent and rampant organisms characterized as singularly iniquitous, parasites and worms offer a range of possible research topics: their association with demons, sin, Hell, diets, conceptions of beauty, conceptions of disease, social “parasitism,” and social castigation. Such themes appear in many more eras and locales than this one work can address. All the major oral and literary traditions of Egypt, Greece, India, China, Arabia, Persia,

Africa, South America, and North America touch on worms with varying seriousness in regard to religion, medicine, and politics.<sup>4</sup> Our contributors, Gardenour, Weaver and Campbell, Chireau, Baker, More, Vemsani, Crivos, Pitner, Fielding, Thomas, and LeVasseur, proffer a handful of examples, ranging from parasites among the Mbya of Argentina to sinful worms in Hinduism, but the potential for this study supersedes these pages.

The comparative scope of the volume, and the research it wishes to initiate, includes four aspects of human use and experience of worms: physical, psychological, social, and symbolic. The project will investigate their interaction within religious, medical, and cultural traditions, including the scientific tradition. Specifically, this essay discusses biological and biomedical perspectives alongside examples from Chinese and other sources.

The biomedical view provides detailed explications of the physical aspect of worms and parasites, as well as intriguing insights on how parasites can influence human autonomous choice, which lead to the startling possibility that creatures within us may affect cultural and social formation. These scientific angles are especially important because they reveal strong continuities with other cultural vantage points, including that of religion.

Scientific theory may have begun to connect parasites to the social realm, but the former's figurative reach into society has been longstanding. Humans compared to worms or parasites appear cross-culturally in insults, humor, and politics. Generally thought to be undesirable, parasites represent an imbalanced relationship where one entity lives off another; worms are associated with decay, primitivity, and lowliness, antithetical to human values of progress and nobility. The strength of these social metaphors lies in the nature and experience of parasites and worms as "the other," where concrete invasion and corruption of the personal body becomes projected onto the social body.

These metaphors also surface in religion and literature, where parasites and worms are particularly emblematic of death, demons, and destruction. From Nietzsche's "worm of sin" referring to the insidious nature of that concept,<sup>5</sup> to the equation of worms with actual sin in Hinduism, Daoism, and Christianity, et al, the term represents evil and corruption. These symbolic functions deeply inform their social metaphoric use and underline their pervasiveness in cultural domains.