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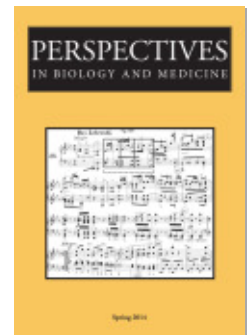
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## **Mold: " Tsara'at, " Leviticus, and the History of a Confusion**

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## MOLD

### "tsara'at," *Leviticus*, and the history of a confusion

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**ABSTRACT** The noun *tsara'at* appears about two dozen times in the Hebrew Bible, almost exclusively in *Leviticus*, where it is used to describe a state of ritual defilement manifested as a scaly condition of the skin, a condition of cloth, leather, and the walls of houses. In the Septuagint, the Greek translation of the Hebrew Bible, *negaf tsara'at* was translated as *aphe lepras*; in the Latin Vulgate, this became *plega leprae*. These words in Greek and Latin implied a condition that spread over the body, not a term of ritual impurity. *Tsara'at* has continued to be translated as "leprosy," even though this term is not appropriate, as there was no leprosy as we know it in the Middle East during the time period the Hebrew Bible was written. Others have suggested that the proper translation of *tsara'at* is "mold." The recent identification of a specific mold (*Stachybotrys sp.*) that contaminates buildings and causes respiratory distress, memory loss, and rash, and the fact that mold has been present for millennia, lend support to the translation of *tsara'at* as "mold."

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THE NOUN *TSARA'AT* OCCURS about two dozen times in the Hebrew Bible, almost exclusively in Leviticus 13 and 14, where it is understood to encompass the notion of ritual defilement manifested as a scaly condition of humans and of inanimate objects, including woven cloth, leather goods, and the walls of houses (Wilkinson 1977). This affliction, *tsara'at*, was handled by priests (descendants of Aaron), who were enjoined to maintain the norms governing ritual cleanliness in the community. So, for example, Leviticus 13:2–3 states: “When a person has on the skin of his body a swelling, a rash, or a discoloration, and it develops into a scaly (*tsara'at*) affection (*nega*<sup>c</sup>) on the skin of his body, it shall be reported to Aaron the priest or to one of his sons, the priests. The priest shall examine the affection on the skin of his body: if hair in the affected patch has turned white and the affection appears to be deeper than the skin of his body, it is a leprous (*tsara'at*) affection; when the priest sees it, he shall pronounce it unclean.” And in Leviticus 14:39–40: “On the seventh day the priest shall return. If he sees that the plague has spread on the walls of the house, the priest shall order the stones with the affection in them to be pulled out and cast outside the city into an unclean place” (Tanakh 1988).

In the third century BCE, the Hebrew Bible was translated into Greek (the Septuagint). The authors of the Septuagint translated *nega' tsara'at* with the Greek words *aphe lepras*, “a plague of leprosy,” and the Latin Vulgate followed suit with *plaga leprae*. These translations encouraged all future identification of the affliction as leprosy. The Greek and Latin phrases, which implied an outbreak that spread over the body, are consistent with Leviticus 13:12, which spoke of the potential for *tsara'at* to erupt all over the body, but they are not terms of ritual impurity. It is obvious, however, that the Greek translators simply guessed. In the absence of a word that referred to a ritual defilement, they selected a Greek word that described (as in Herodotus, who described Persians affected by *lepre*, “scales,” or *leuke*, “white patches”) a known minor skin condition characterized by scaling of the skin (Baillie and Baillie 1982). That a prevailing Greek term *elephantiasis*, which may have described leprosy better, was not used, indicated an intentional distinction between the religious state of ritual or ceremonial defilement and the disease leprosy.

Despite the persistence of “leprosy” as a rendering for *tsara'at*, there is little evidence that the disease as described in contemporary medicine existed in the Ancient Near East when Leviticus was presumably written or compiled. Now known as Hansen’s disease, after the Norwegian doctor who identified its bacillus in 1873, leprosy leaves hypopigmented or reddish skin lesions on human extremities, leading to loss of sensation, damage to the peripheral nerves, and deformation of fingers and toes. Collapse of the nasal bridge, loss of incisors, and blindness can also occur. Historians of medicine cannot trace the presence of leprosy archaeologically before the 4th or even 3rd century BCE (Beckett 1987). There is a dispute among scholars about the presence (or absence) of Hansen’s disease in the ancient world. Egyptologists debate whether a disease called *ʿ3t*.

*nt.h nsw* mentioned in medical papyri of the 2nd millennium BCE could belong to leprosy. As it is, the earliest skeletal evidence of the disease comes from a Ptolemaic cemetery, approximately 200 BCE, in the Dakhlah Oasis (Filer 1995). Assyriologists likewise discuss the status of a host of afflictions mentioned in cuneiform texts that have on occasion earned the label “leprosy”; however, a recent authoritative study has cast doubts on their connection with it (Stol 1989). No pre-Christian skeletal evidence for leprosy has as yet come to us from Mesopotamia, and Kaplan can therefore state categorically that “There is no literary, historic, artistic or osteoarcheologic evidence of leprosy in the Middle East before the return of Alexander the Great’s armies in 325–324 BCE” (Browne 1975; Kaplan 1993).

Others have recognized that mold, or mildew, can cause scaling and depigmented lesions in humans, and can also infest houses, and have suggested that *tsara’at* should be translated as “mold” (e.g., Buchanan 1993). The recent identification of specific molds that can infect both humans and houses, and that cause symptoms similar to those described in the Bible, reinforces this suggestion. In an article in the *New York Times Magazine*, Belkin (2001) described a particularly virulent uncommon mold contamination so severe that homes were uninhabitable and their total destruction and incineration were the only safe response. Mold-contaminated buildings could cause serious health problems, including respiratory illness, rash, fatigue, and memory loss. These symptoms appear to be associated with mold of the genus *Stachybotrys*, although other molds may also be involved.

*Stachybotrys* is a greenish-black mold that is thought to have existed for millennia (Restoration Consultants 2001). This mold thrives in a moist environment and grows on drywall, wallpaper, and insulation, as well as on commonly found household items. The moist environment develops when roofs or plumbing fixtures leak, or when water seeps through foundations. When patients have been exposed to toxins produced by this fungus, they have reported the symptoms described above. Other studies suggest that *Stachybotrys* may be involved in suppression of immune function and pulmonary disease, including pulmonary hemorrhage. It should be noted, however, that the implication of *Stachybotrys* as the cause of multiple symptoms and of pulmonary hemorrhage is controversial, and there is extensive literature on this topic (see Johanning 2001; Mold-Help 2001). Mold infection also may be responsible for “sick house syndrome,” whose symptoms include rash, respiratory illness, fatigue, and even memory loss (Johanning 2001). If a building is contaminated with *Stachybotrys*, chlorine can be tried on the moldy surface, but it may not be successful. Once a building has been contaminated with *Stachybotrys*, “many experts agree there is no way to remediate it” (Mold-Help 2001).

It is tempting to associate mold with *tsara’at*, which, as Leviticus 13 and 14 reveal, manifests itself in humans as a skin condition and in inanimate objects, especially the walls of a house, as a blight. The Biblical authors recognized the

association between affected humans and affected houses, an association that is made more plausible by the recognition of the effects of *Stachybotrys*. We therefore suggest that the word *mold*, logical in terms of history and mycology, is the perfect equivalent to Hebrew *tsara'at*. Thousands of years have passed since the Hebrews dreaded this mold contamination, deeming it the result of a cultic infraction and leaving its treatment to priests. We and our property are still the victims of molds, and we have yet to effectively control their ravages.

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