Forensic Pathology and the European Vampire

If there is in this world a well-attested account, it is that of the vampires. Nothing is lacking: official reports, affidavits of well-known people, of surgeons, of priests, of magistrates; the judicial proof is most complete. And with all that, who is there who believes in vampires? Rousseau¹

T

The modern reader might assume that the vampires of the eighteenth century were much like the ghosts of today, which exist in a rather murky underworld, far from the haunts of Scientific Method. In actuality, however, as one might gather from Rousseau's remarks, nothing could be further from the truth: a number of "vampires" were actually dissected by surgeons, who compiled a report in which they came to the conclusion that there was in fact something very spooky going on.

Moreover, whatever was happening, it was not only spooky, it was catching: the vampire infected his victims, causing them to become vampires as well, so that the phenomenon tended to occur as an epidemic. In the late-seventeenth century, such an epidemic of vampirism occurred in Poland and Russia, and the French *Mercure galant* carried the following account of it:

They appear from midday to midnight and come to suck the blood of living people and animals in such great abundance that sometimes it comes out of their mouths, their noses, and especially, their ears, and that sometimes the body swims in its blood which has spilled out into its coffin. They say the vampire has a kind of hunger that causes him to eat the cloth he finds around him. This revenant or vampire, or a demon in his form, comes out of his tomb and goes about at night violently embracing and seizing his friends and relatives and sucking their blood until they are weakened and exhausted, and finally causes their death. This persecution does not stop at one person but extends to the last person of the family, at least as long as one does not interrupt its course by cutting off the head or opening the body of the vampire. Then one finds his body, in its coffin, limp, pliable, bloated, and ruddy, even though he may have been dead for a long time. A great quantity of blood pours from his body.²

Such accounts became common in the eighteenth century, and the bestattested of them, the *locus classicus* of vampire stories, told of events that occurred in the twenties, near Belgrade, when a man named Arnold Paole died an accidental death, after which several people died suddenly of what had been traditionally viewed as "vampirism." Forty days after his burial, Paole was exhumed:

[It was found] that he was complete and incorrupt, also that completely fresh blood had flowed from his eyes, ears, and nose, and the shirt and graveclothes were also bloody. The old nails on his hands and feet, along with the skin, had fallen off, and new ones had grown. Since they could see from this that he was a true vampire, they drove a stake through his heart, according to their custom, whereupon he let out a noticeable groan and bled copiously.³

A few years later there was another such outbreak of "vampirism." Among others, the authorities found:

A woman by the name of Stana, twenty years old, who had died in child-birth three months before, after a three-day sickness, and who had said before her death that she had painted herself with the blood of a vampire in order to be free of him, wherefore she herself, like her child—which had died right after birth and because of a careless burial had been half-eaten by dogs—must also become vampires. She was whole and undecayed. After the opening of the body a quantity of fresh, extravascular blood was found in cavitate pectoris. The vasa of the arteriae and venae, like the ventriculis cordis, were not, as is usual, filled with coagulated blood, and the whole viscera, that is, the pulmo, hepar, stomachus, lien et intestina were quite fresh as they would be in a completely healthy person.

Clearly these accounts, however well attested—and the people present at Stana's disinterment included "two officers, military representatives from Belgrade, two army surgeons, a drummer boy who carried their cases of instruments, the authorities of the village, the old sexton and his assistants"5—contain details that cannot possibly be true and so must be dismissed. It is quite obvious, for example, that a dead body cannot groan, that blood coagulates after death, that a corpse is pale, not flushed, and is subject to rigor mortis, and that decomposition takes place shortly after death, certainly in less time than forty days.

Or do we know these to be "facts"? As we shall see, they do not stand up at all well under scrutiny. In fact, it will be shown here that the closer we look at the descriptions of "vampires" in their graves, the more accurate—as descriptions—these prove to be. Far from being merely fanciful horror stories, the vampire stories prove to be an ingenious and elaborate

folk-hypothesis that seeks to explain otherwise puzzling phenomena associated with death and decomposition—phenomena that are now well understood. Viewed as a theory, the vampire lore may be—as we now know—quite wrong, but like the Ptolemaic astronomy, it is capable of describing events accurately and has predictive value. In its history, however, it differs from such theories as Ptolemy's in that it was not the creation of a single person and no single Copernicus ever came forth to refute it—that was done piecemeal, over centuries—so that in modern times we no longer even understand how and why it came about.

To complicate the matter further, while modern forensic analysis has brought about an understanding of the phenomena of death and decomposition, this understanding simply has not reached most of us yet. We do not choose to spend a great deal of time thinking about how our bodies will decay after death. Thus it is that we remain convinced that—to give just one particularly dramatic example—a dead body cannot groan, as Arnold Paole's is said to have done; but however persuaded you are of this, you would be well advised not to make any sizable bets on the matter without consulting your local coroner, for he will most certainly tell you otherwise.

In order to understand the vampire lore, then, we will have to unravel two sets of misconceptions: theirs and ours. In attempting to do so we will ask an obvious but neglected question: if bodies do not, in fact, turn into vampires, then what does happen to them? And do the actual events have any relation to those of the folklore?

From time to time scholars have attempted to explain the vampire lore by suggesting that perhaps the bodies were not dead at all, but were those of people buried alive, by accident. That would account for their bleeding, groaning, etc. No one, as far as I can tell, has published a serious study of this view, probably because it flies in the face of all our best evidence: the "vampires" we have the best information on were dug up (like Paole) long after their interment. Consequently, to prove that they were merely in a coma, one would have to prove that human beings can survive deprivation of air, food, and water for weeks and months at a time.

In looking for a simpler explanation, we will proceed as follows:

A. We will summarize the stories about vampires and revenants, using as our data those details that occur again and again in such stories. In the course of our discussion it should become apparent that our informants are themselves all looking at the same data—dead bodies perform pretty much the same world-wide—but with a wealth of information at their disposal the informants make different choices in identifying the characteristics of their particular native monster. As we shall see, the vampire and the revenant are identical in their origin: both start out as dead

bodies. It is just in the telling that they diverge, and the principal source of their divergence is based on an ingenious interpretation of a striking but quite normal phenomenon associated with death and decomposition (see below, #4). This is not the reason, however, why I will not concern myself with the much-debated typological distinctions between the vampire, the revenant, and their other relatives: it proves unexpectedly difficult to talk about the genus "revenant" without doing violence, from time to time, to the technical terms for the various species. Consequently, rather than either qualify my terms endlessly or make up a new, allencompassing term, I shall ask the reader to accept for now the following working definition of a vampire/revenant: "any dead human being who, in folklore, is believed to return to life in corporeal form." I shall use the term "revenant" where possible, as it seems to me the more general term, but where the process of transformation is at issue, I shall use "vampirism" rather than "revenantism," for reasons that probably need no elaboration.

In the interests of economy, I shall limit the discussion to European vampires and revenants. Actually, however, such creatures occur in folklore throughout the world, as one would expect, and scholars have remarked on the similarity of "vampires" in China to those in Europe.⁶

- B. Second, in attempting to understand the folklore of death, we will study what actually happens to a body after death.
- C. And finally we will put the two sets of data together—what people knew about vampires and what we now know about dead bodies—and see if they do not in fact correspond remarkably well.

II

The following, then, is a summary of information that has been reported about vampires and revenants:

- l. Murder victims,⁷ suicides,⁸ and victims of plague⁹ tend to become revenants. Indeed, revenants cause plague.¹⁰ They were often unpopular people even before their deaths.¹¹
- 2. The earth is disturbed at the revenant's grave, or there are holes in the earth. 12
- 3. The body has not decomposed, is bloated, and is flushed and ruddy. "If, after a period of time, it remains incorrupt, exactly as it was buried, or if it appears to be swollen and black in color, having undergone some dreadful change in appearance, suspicions of vampirism are confirmed." (Note that what is being said here is that if the body has not changed, then it is that of a vampire, whereas if it has changed—then it is that of a vampire.)
- 4. He may suck blood from his victims, evidence of which is the bloating and the blood at the lips of his body when he is found in his grave.¹⁴

- 5. The friends and neighbors of the revenant die after his death. 15
- 6. He can be heard in the grave, chewing on his extremities or on the shroud, especially in times of plague.¹⁶
 - 7. He is most likely to be about in the winter.17
 - 8. His body is warm to the touch.18
 - 9. He has an evil smell.19
 - 10. His body shows no signs of rigor mortis.20
 - 11. His hair and nails have continued to grow after death.²¹
 - 12. His principal natural enemies are wolves and dogs.²²
- 13. The revenant cannot cross water²³ and must return to his grave by sunrise.²⁴
 - 14. Potential revenants may be disposed of in swamps.²⁵
- 15. It takes some time for a person to become a revenant after death. Most accounts mention either nine days²⁶ or forty days.²⁷
 - 16. A revenant can be killed by the following means:
 - a. Pierce him with a stake (in different areas, different types of wood are specified).²⁸ Sometimes a needle is specified.²⁹
 - b. Cut off his head.30
 - c. Cut out his heart.31
 - d. Burn him.32
 - e. All of the above.33
- 17. A revenant may be kept in his grave by pinning him to his coffin or to the ground in his grave,³⁴ or by securing the grave with bolts or weighing down the body.³⁵
- 18. Revenants may be controlled by the harnessing of their compulsions, as by scattering poppy or millet or mustard seeds in their graves (they must then gather them up one by one), or by putting a fishing net or a sock into the grave with them (they must unravel these, usually at the rate of one knot per year).³⁶
 - 19. Flames shoot out of the mouths of some Slavic vampires.³⁷
- 20. When a revenant is killed in his grave, he is apt to scream or groan and to move suddenly, and fresh blood flows from his wounds.³⁸
 - 21. You may protect yourself from a revenant by means of garlic.³⁹
- 22. Vampires and other revenants are frequently described sitting up after death, sometimes in the grave or coffin. 40
- 23. Vampirism is a phenomenon of the villages, not of the cities; of the lower classes, not the upper.⁴¹

One misconception about the folklore of vampires might be noted here. Contrary to popular belief, the species "vampire" is not a native of Hungary, although, as we shall see, Hungary has representatives of the genus. The western idea that vampires are Hungarian is, however, a rather old tradition itself, dating back to the eighteenth century, when some of the incidents of "vampirism" took place in what was then part of

Hungary. 42 This idea was given added force when the makers of the movie version of Bram Stoker's novel chose a Hungarian (Bela Lugosi) to play the part of Count Dracula, a figure derived from Vlad the Impaler, a Prince (not a count) of Wallachia (not Transylvania), who has in common with the Hungarians the fact that no tradition of vampirism at all—in folklore at least—attaches to him. 43

Ш

As noted, any attempt to make sense out of the folklore of death must begin with considering the facts of death. We shall discuss these under the following categories:

- 1. Decomposition: characteristics
- 2. Coagulation and decoagulation of blood
- 3. Decomposition: duration

Our primary sources will be two standard texts: Glaister and Rentoul's Medical Jurisprudence and Toxicology, hereafter to be referred to as "Glaister," and Albert Ponsold's Lehrbuch der gerichtlichen Medizin. In addition, I shall cite the views of Dr. Terence Allen, Deputy Medical Examiner of the Los Angeles Chief Medical Examiner's Office, who answered several questions for which I could not easily get adequate answers from the literature.

- 1. Decomposition: characteristics. Glaister and Ponsold give an exhaustive account of the stages of decomposition, but only a few details are important to our discussion:
 - —The face of the body undergoes swelling and discoloration.
 - —The abdomen distends because of the gases given off by the microorganisms that cause decomposition.
 - —A blood-stained fluid escapes from the mouth and nostrils.
 - —The nails are shed and the hair is loosened, while the beard appears to grow (but does not) because the facial skin sinks back.
 - —The abdominal and thoracic cavities burst open.44
- 2. Coagulation and decoagulation of blood. The blood does in fact clot after death, but when the source of oxygen has been cut off very quickly, as when death is sudden, the blood soon liquifies again and remains in that condition.⁴⁵
- 3. Decomposition: duration. In the popular imagination, decomposition is viewed as both a quicker and a more complete process than it necessarily is. In the movies, for example, the decay of a body is typically shown to be complete, with nothing left but bones that remain in anatomically correct relation to one another.

The reality is very different indeed. According to Glaister, "Putrefaction begins at about 50° F., and is most favored by temperatures ranging

from 70° to 100°.46 The temperature of the ground, a few feet below the surface, is normally well below this ideal temperature. European oenologists, in fact, expect the temperature of a wine *cave* to be around 54° Fahrenheit. It will be seen from this that a body will not, in fact, decompose quickly in a grave at all. "It may be accepted as a general principle," says Glaister, "that a body decomposes in air twice as quickly as in water, and eight times as rapidly as in earth."

Moreover, under certain conditions bodies may not decompose at all. Where there are hot, desiccating sands, or currents of dry air, mummification may take place. Where there is a superabundance of moisture, little air, and few microorganisms, a process called "saponification" may take place, which preserves the body indefinitely. The bodies of those who are poisoned tend to resist decay simply because the poison kills the microorganisms that cause decay. 50

And finally, bodies can be preserved by immersion in acid peat bogs, as is the case with the so-called "Bog People," many of whom date from the early Iron Age. According to Christian Fischer:

The reason for the preservation of the bog bodies (and of other organisms also) lies in the special physical and biochemical makeup of the bog, above all the absence of oxygen and the high antibiotic concentration. The manner in which the body was deposited is also of great importance—for example, placed in the bog in such a way that air was rapidly excluded. It is important not only that the bog water contained a high concentration of antibiotics but also that the weather was cold enough (less than 4° C) to prevent rapid decomposition of the body. If the body had been deposited in warm weather, one can assume that the presence of anaerobic bacteria in the intestinal system would have had a destructive effect on the interior of the corpse before the liquid of the bog could penetrate the body.

In numerous cases such bodies were preserved so well that, in modern times, on their discovery by peat-cutters, their discoverers have gone to the police rather than to an archaeologist as it was apparent to them that a murder had taken place, and they believed it to have been a recent event, rather than one from two thousand years in the past.

IV

It remains for us to look once again at our information about vampires, this time with an eye to asking ourselves if we cannot now make sense of it, in light of what we know about what actually happens to bodies after death.

1. Murder victims, suicides, and victims of plague tend to become vampires. Note that these three categories of the dead have in common that

they are inadequately buried, the first two for obvious reasons—murderers tend to give only limited attention to the niceties of funerary procedures, while suicides ignore them completely—the last because, during epidemics, so many people died that burial was often very hasty. The Blums, in fact, quote one informant who actually defines the Greek *vrykolakas* as an unattended dead body: "These were dead people who had died alone and had no one there to take care of them."⁵² And the people of Oldenburg, getting right to the heart of the matter, came to the conclusion that vampirism could occur simply because a body was not buried deep enough.⁵³

This is because what is really happening is not that bodies are turning into revenants, but that they are coming to the attention of a populace that has only a very inadequate understanding of how a body decays. The bodies that are buried well do not draw attention to themselves later, as did, for example, that of the child in the account quoted earlier, which was dug up by dogs "because of a careless burial." Moreover, as Glaister points out, people who die suddenly, in apparent good health, do not decompose as rapidly as those who die after a long illness. ⁵⁴ It will be seen that murder victims and suicides are especially likely candidates for "vampirism": not only are they not buried properly, but, because of their sudden death, they do not decay quickly.

To these considerations must be added the fact that even normal burials are often not very deep, for reasons that will be immediately clear to anyone who has ever tried to dig a deep hole without the aid of a backhoe. Creighton cites a nineteenth-century account of Bedouin burials that illustrates this problem: "The deceased is buried the same day or on the morrow. They scrape out painfully with a stick and their hands in the hard-burned soil a shallow grave. I have seen their graves in the desert ruined by foul hyenas, and their winding-sheets lay half above ground." Where the soil is rocky, shallow burial—or another form of disposal of the corpse—becomes inevitable. And Edmund Schneeweis observes that the Serbo-Croatians generally dig their graves to a depth of one to one-and-a-fifth meters. In view of this, it is no surprise that they have always had more than their share of "vampires."

2. The earth is disturbed at the grave of the vampire. If a body is given a shallow burial, then undergoes bloating, the surface of the earth will, in fact, be disturbed. It was once believed that one could detect the presence of a vampire in a grave by attempting to lead a horse across the grave. If the horse balked, the grave contained a vampire. Fig. 18 there is anything at all to this story, it could be that the horse was balking simply because of the looseness of the dirt over the grave, occasioned by the swelling of the corpse, or because it could smell the corpse. The action of predators (see

- #13) and the settling of the earth would also presumably disturb the surface of the grave.
- 3. The body is intact and is bloated. If the body is buried, there is nothing surprising about its preservation, since it has been protected from air, moisture, maggots, and warmth, the principal agents of decomposition. But even if it is lying in the open a body will sometimes remain intact for a long time, especially in cold weather.

The bloating occurs because the internal organs, which decompose first, produce gases that then have no escape route. Krauss remarks that the Slavs believed that "ein Vampyr wäre von dem Blute der Menschen, die er ausgesogen, ganz rot und aufgebläht." ("A vampire was all red and swollen from the blood of the people whom he had sucked out.") Here we see that the description (if not the explanation) is accurate enough: a corpse does in fact bloat and change color, and the color may vary considerably, ranging from pale through red to livid and even black. I have in my files, in fact—courtesy of the Los Angeles Medical Examiner's Office—a slide of a decomposing Caucasian corpse that I originally thought to be that of a black man, so darkened was the skin.

4. The face is flushed and ruddy. Probably one of the things we are seeing here is what is referred to as "post-mortem lividity" or "livor mortis." ⁶⁰ When death occurs, the oxygen in the blood is used up, whereupon the blood turns dark in color, and because circulation has come to an end, the corpuscles—now dark—are caused by gravity to sink toward whatever is the low side of the body. Since the plasma and corpuscles separate (when the blood liquifies), and since the plasma is lighter than the corpuscles, both in weight and in color, it will be seen that the face of a body may be pale if it is supine, dark if it is prone. If Hans Naumann is right, then, and the "weisse Frau" is to be derived from the characteristic pallor of a (supine) dead body, then it would seem as if his "schwarzer Mann" might have a corresponding origin, except that the figure is a reflex of the appearance of a prone body. ⁶¹

That this is possible is suggested by the fact that potential revenants were normally buried face down, so that they would not find their way to the surface. 62 It will be seen that such a burial practice would cause the face of the corpse to discolor—note Krauss' observation above—thereby proving to those who buried it, then dug it up again, that their original presumption was correct, and the corpse really was that of a vampire. 63

While it is entertaining to speculate on the matter, however, it does not seem to me as if one can hope to prove or disprove Naumann's thesis: the "weisse Frau" and "schwarzer Mann" are strictly in the domain of legend. Unlike the vampires and revenants, they are not exhumed in the form of actual bodies from actual graves. Moreover, the coloration of a

dead body is a more complicated matter than is suggested by this very brief analysis, because decomposition also changes the color of the skin.

5. There is blood at the lips and nose. Again, this is normal in a decomposing body. It occurs because the lungs, which are rich in blood, deteriorate after death and are under pressure from the bloating of the internal organs. A blood-stained fluid is forced out through the mouth and nose.

It will be seen now why it was believed that the vampire drank blood: here you have a body that is clearly full of something that was not there when you buried it—it is bloated—and there are obvious traces of blood at the lips. Furthermore, the gravesite is disturbed (by the swelling of the body). The villagers, instead of remarking to one another that here is an obvious case of bloating, resulting from the production of gases by microorganisms and accompanied by traces of blood-stained fluid induced by pulmonary edema, conclude that the body has been climbing out of the grave to suck blood, and that that is why, when you drive a stake through it to kill it, it proves to be full of blood. (See below: liquid blood.)

Worldwide, there are some common means of dealing with this phenomenon of bloody fluid escaping from the mouth of the corpse. Frequently the mouth is tied shut, as is done with the elder Bolkonski in War and Peace, and in much of Europe this is considered important since, if it were not done, the body would become a revenant. ⁶⁴ I have seen Peruvian mummies (in the Ethnographic Museum in Vienna) with wool stuffed in their mouths, and it seems likely that this is done to soak up the liquid. In Australia soft plant fibers are said to be used similarly. ⁶⁵

- 6. The friends and neighbors of the vampire die after his death. I suspect that what is important here is not relationship but propinquity. We would say that they all died of the same contagious disease, which the people close to the "vampire" are more likely to catch than those distant from him. Their view is that the vampire must have climbed out of his grave—the earth above the gravesite is disturbed, after all—and attacked his friends and neighbors at night, sucking their blood. It must have happened at night because no one saw him.
- 7. He can be heard in the grave, chewing on his extremities or on the shroud. It will be seen how startled people would be to find that a sound was issuing from a grave, as we all know that the dead are unusually quiet by nature. Nevertheless, dead bodies can make a certain limited number of sounds, and there is considerable reason to believe that the sound described here is that of the body rupturing as the result of the bloating caused by decomposition. This bursting of the body, which can be quite audible, is not necessarily sudden, like that of a balloon being popped; it can be a prolonged event, like the sound of the air escaping from a tire. Some years ago, on a hike in Monterey County, I came upon the body of a

Hereford calf that was undergoing this dreadful experience. The pressure of the gases was forcing what is called "purge fluid" to escape from the body. This was very audible, even from some distance away—indeed, I heard the body before I saw it. The emission of purge fluid, incidentally, would seem to account for stories of bodies that are heard making noises in the grave, are dug up, and are found to be "lacerated and swimming in blood." ⁶⁶ It could be, incidentally, that this belief—that the dead can be heard chewing in their graves—reinforced the age-old custom of providing the dead with food and drink.

If the swollen body is punctured, of course, the rupturing is apt to be sudden and dramatic, and this process has been unforgettably chronicled (the body in this case being that of an elephant) by John Hunter in his African Rifles and Cartridges.⁶⁷ Hunter describes an "immense out-rush of stinking gas and muck." That our vampires perform similarly is suggested by the practice (attested both for Poland and Yugoslavia) of covering them with a hide or cloth or dirt to prevent the blood of the vampire from spurting onto his killers, as this would kill them or cause them to go mad.⁶⁸

The observation that the vampire chewed on his extremities seems to result from the tendency, in wet climates, of the limbs of corpses to lose their flesh while the trunk, perhaps because it is covered with clothing or a shroud, does not appear to have done so. One can observe this in pictures of Tollund Man. Also, Evens (p. 49) remarks that saponification is more likely to take place where the body is covered. I suspect, but cannot think how I can prove it, that the eating of the shroud is simply an interpretation of the effect of capillary attraction on the shroud, as the mouth is emitting fluids. That this is plausible is suggested by the common belief that such eating can be prevented by the simple expedient of keeping the shroud away from the mouth of the revenant.⁶⁹

There are fairly numerous accounts, incidentally, of the bursting of the body of the vampire. Trigg gives one such account:

Among some gypsies it is believed that a simple curse is sufficient to destroy a troublesome vampire. In one Rumanian gypsy folktale, for example, a vampire is quickly destroyed simply by saying to him, "God send you burst." On hearing this the vampire was so enraged that he literally burst, leaving nothing but a large pool of blood where he had stood.⁷⁰

Here we have two common motifs, the swelling (and subsequent bursting) of the corpse and the suspiciously liquid blood. Murgoçi (p. 349) gives another account of a vampire that burst with anger, and Vakarelski observes that Bulgarian vampires, when killed, leave only liquid blood behind.⁷¹

Finally, the reader may protest that the bursting of the body, being an event of limited duration and taking place under the ground, would presumably not be easily noticed. This is of course true, which is why it is that such things tend to happen during epidemics—that is, when hundreds of people are being buried, and not very deep at that. It could be that at such times it would be hard *not* to notice such sounds, especially since people would be frequenting the graveyard more than usual. In any case, folklore is rich in accounts of sounds being emitted from graves.⁷²

- 8. He is most likely to be about in the winter. Here we must recall that a vampire is characterized, among other things, by his disinclination to decay properly. The decay of the body is of course retarded by low temperatures: note Fischer's remark (Section III) about how only those bog bodies would have remained intact that were deposited in the bogs in cold weather. In the eighteenth century, when Flückinger's famous Visum et Repertum was published, no one seems to have noticed that the vampires of Medvegia (see above: Stana) were dug up in January! That the bodies had not decayed, which was such a source of astonishment to the doctors who investigated them, can scarcely come as a surprise.
- 9. His body is warm to the touch. This could be because the process of decomposition generates heat. According to Ponsold (p. 290) it is actually possible for the temperature of the body to increase after death, as a result of decomposition. In the eighteenth century the botanist Pitton de Tournefort observed first-hand the dissection of a Greek vrykolakas and wrote an account of it in which he describes trying, without success, to explain this phenomenon to the people of Mykonos. De Tournefort's description of the stench from the body—and he maintains that it was in fact merely a dead body—was sufficiently graphic that his account was thoroughly bowdlerized, both in English and (later) French publications. An accurate version of it can be found in Jan Perkowski's Vampires of the Slavs (Cambridge, Mass., 1976), p. 109 ff.

According to Dr. Allen, such a rise in temperature would be uncommon: normally the body would be in equilibrium with the ambient temperature. He points out, however, that a body will frequently seem warm because one's hands are cold, which is why modern books on forensic investigation insist that one determine temperature with a thermometer, not by touch.

- 10. He has an evil smell. Surely no comment is necessary by now.
- 11. His body shows no signs of rigor mortis. In fact, rigor mortis is a temporary condition. Glaister discusses in detail the factors that determine its time of onset, length, etc.⁷³ Incidentally, Aidan Cockburn tells of a Chinese mummy, two thousand years old, of which "the tissues were still elastic and the joints could be bent."⁷⁴

12. His hair and nails have continued to grow after death. Sometimes the teeth grow as well, although this is more commonly noted in fictional vampires than in those of folklore. The hair, nails, and teeth do not in fact grow after death: they merely appear to do so as the skin shrinks back. Eventually two other events take place: the nails fall off and a phenomenon known as "skin slippage" occurs (both these events may be seen in the account of Arnold Paole in Section I).

A recent article in *National Geographic* shows and discusses this phenomenon of the apparent lengthening of the fingernails.⁷⁵

13. His principal natural enemies are wolves and dogs. This belief clearly arises out of a misinterpretation of a common phenomenon: the tendency of wolves and dogs to dig up and eat corpses that are not either buried deep or protected in some way, as by a casket. We have seen how, in the account quoted in Section I, the child's body had been half-eaten by dogs, because of a careless burial, and Dr. Allen tells me that it is quite common for animals to dig up bodies that have been buried superficially. They may even carry off parts of the body. Many burial practices can be shown to be attempts to deal with this problem. The Bedouins, for example, have been said to have preferred to bury their dead in rocky areas so that they could cover the graves with stones to protect them from wolves. If the burial was in sand, then brush was used for this purpose.⁷⁶

Some years ago I inadvertently conducted an informal experiment on this issue when I buried the body of a pet chicken in my yard only to discover that (to state the matter within the context of Russian mythology) Mother Earth repeatedly rejected the unclean corpse, until finally I dug a deeper hole, covered the corpse with rocks, filled the hole, and issued a stern warning to my dog. Years later I realized that I had encountered a typical problem of burial and had responded with a typical solution.

Incidentally, one of the lesser-known ecological niches is filled by white wolves that, in certain areas, occupy graveyards and keep down the vampire population.⁷⁷ This suggests that when the wolf is found digging up a corpse, and the corpse is found to be undecayed—hence a vampire—then the wolf is seen as an ally of the villagers. This could explain the extremely close relationship between werewolves and vampires: in Eastern Europe, the werewolf, after his death, becomes a vampire.⁷⁸ The clustering of the three ideas—death, werewolf, and vampire—may occur simply because death produces a corpse which attracts a wolf.

And finally, when wolves or dogs dig up a body, it will be seen that they are far more likely to bring a limb to the surface than the trunk of the body, simply because it is easier to do so. This may account for the fact that the *lugat*, a type of Albanian revenant, which is otherwise invulnera-

ble, is no match for a wolf: "he [the wolf] bites his leg off, whereupon the lugat retreats into his grave and decides to remain quiet from now on."⁷⁹ It may also account for the origin of stories in European folklore of how a hand reaches out of the grave. Sometimes the hand is that of a child that struck its mother, ⁸⁰ or it is that of someone who has brought down a curse upon himself, such as a patricide, a thief, or a perjuror—a group not unlike that of our standard revenants. ⁸¹ Here too the curse may be less significant than the inadequate burial. Such stories, however, occur in various degrees of elaboration, and I do not mean to suggest that each of them had its origin in an actual event—only that the event is not as improbable as it must seem at first sight.

14. The vampire cannot cross water and must return to his grave by sunrise. Here we must remember three things: (a) the body is not buried very deeply; (b) it has bloated spectacularly (up to nearly twice its original size), filling up with lightweight gases, thereby increasing in buoyancy; and (c) it may well be buried in ground that has a high water table, such as a swamp. It is extremely common for bodies of murder victims to be disposed of in water with enough weight to submerge the body, but not enough to keep it submerged when putrefaction causes it to bloat. According to Dr. Allen, in fact, it is almost impossible to keep a body submerged. He provided me with a photograph of a body that had floated to the surface even though it was weighed down with a piece of cast iron that weighed 145 pounds! The body itself weighed five pounds less than the weight that it had carried up to the surface of the water, and we must note that we have no way of knowing what was the upper limit of the lift provided by the bloated body. We know only that it would lift at least 145 pounds (125 when one takes into account the buoyancy of the iron in water).

Here we see yet another reason why it is that the vampire emerges from his grave: his body may simply be more buoyant than its surroundings. It should also be pointed out that, according to Glaister, waterlogged soils tend to retard decomposition (p. 119-20). Thus we may imagine the following scenario: if the earth is waterlogged and the body bloats, rising to the surface, the local inhabitants, coming out in the daytime and finding the "vampire," quite intact, at the surface, might conclude that:

- (a) The vampire did not make it back to his grave by dawn, or
- (b) A vampire cannot cross water.

Still another interpretation of the same phenomenon seems to be implied in Murgoci's report that "vampires never drown, they always float on top."82

That bodies of suspected revenants frequently ended up in water, incidentally, is well attested. In Russia, for example, where the revenant

was believed to be responsible for droughts, the practice arose of digging up the body and throwing it into a lake or stream, apparently on the assumption that, with a sufficiency of water at its disposal, it would leave the clouds alone.⁸³

15. Potential revenants may be disposed of in swamps. Some light may be thrown on this practice merely by asking about alternatives. Even leaving aside the hydrotropic character of the soul, which is presented as the rationale for numerous funerary procedures, 84 the possibilities are limited by the nature of the problem. If you wish to dispose of a dangerous corpse, you will naturally choose a site that is away from human habitation. You could go into the hills, if there are hills, but it must be remembered that you are obliged to transport a corpse. Such corpses have proved to be preternaturally heavy, 85 unless of course it is merely the fear and trembling of their bearers that makes them seem so.

In any case, it seems likely that you would choose low uninhabitable ground over high uninhabitable ground, unless the death occurred on high ground. When this is the case, as it is with the revenant Glam in *Grettir's Saga*, the body is likely to be covered with rocks or brush to keep it in place. 86 For one thing, there may not be a deep enough soil for burial; for another, it is apt to be rocky soil, which is difficult to dig in.

When a body is disposed of in a swamp, on the other hand, the problems are different. While the depth of soil is likely to be adequate, the high water table might make it impossible to dig a deep hole. And once you know that the body is apt to become a revenant (i.e., bloat and come to the surface), you will be forced to come up with means of preventing this from happening. Some of the more obvious means would be puncturing the corpse (to release the gases), weighing it down with rocks, and holding it down with a latticework of branches.

Fortunately, we are not reduced to mere speculation on this point, for close to two thousand bodies—quite well preserved in many cases—have been dug out of bogs in Europe, many of them held down in just the ways I have described.⁸⁷ Some of these were clearly the "bad dead" of their age, people who had died "before their time" and so refused to decompose properly.

16. Length of time for the transformation to take place. Both numbers—nine and forty—are simply examples of mythic time, which occurs in standard quantities. One of the German terms for a revenant is "Neuntöter" (ninekiller),88 and in Swabia it was said that a drowning victim remained underwater for nine days.89 In the Bible, such things as days in the wilderness and the duration of floods occur in units of forty, and the number has made its way into vampire lore because in the Eastern Orthodox church it was believed that, after death, the soul remained on

earth for that length of time. As for the *actual* time required for a body to "become a vampire" (which is to say, become swollen and discolored), that is simply incalculable: there are too many variables.

17. To kill a vampire, you must pierce him with a stake. The staking of a vampire makes a certain kind of sense when you consider that what is being "killed" is a bloated corpse. The most direct way of reducing it to what it was is to puncture it.

This puncturing of the body is common even before burial, as a prophylactic measure: "should the devil inflate [the skin of the body], then the air would escape." Other examples of such puncturing are common in the literature. 91

Frequently sharp objects have been buried with the body in order to puncture it if it should bloat. Richard Beitl, for example, describes sickles being buried with bodies in Transylvania "allegedly in order to prevent the swelling of the body,"92 and Norbert Reiter says the the Slavs buried bodies with a sickle around the neck of the corpse, "so that the vampire would cut his throat if he left the grave."93 Perkowski quotes a Romanian informant who says that the sickle must be driven into the corpse's heart, 94 and according to Csiszár, the Hungarians attempted to prevent the bloating of the body by putting iron objects on it: "There are also evil souls of a sort that spoil the corpse. When they creep in, then the stomach bloats and the dead person acquires a smell. [To deal with this] one puts iron implements on the stomach of the dead person."95 (Note that the stench and bloating are regarded here as something unnatural.) Balassa and Ortutay give a similar report for Hungary, saying that a sickle "is laid on the body to prevent bloating" and adding that such sickles have been found in graves dating back to the ninth century. 96 Tekla Dömötör also remarks that—in Hungary—people laid either a sickle or some other metal object on the dead person "so that the corpse would not bloat," and says that "in reality this occurred so that the dead person would not come back as a revenant." It will be seen that both interpretations are correct, since it is the bloating—and consequent disturbance of the burial site that is interpreted as the dead person trying to get out of his grave. The sickle is expected to prevent this by puncturing the body. This function of the sickle, incidentally, might cause one to puzzle over a possible relationship to the traditional conception of death as a skeleton carrying a scythe or sickle.98 Sickles are in fact often found in the presence of skeletons, because of the above-mentioned burial practice, and both Burkhart and Schneeweis suggest that one of the Slavic words for vampire (prikosac) may be derived from a word for scythe.99

In addition to sickles, Schneeweis mentions various iron implements—knives and swords and axes—being used thus. In his opinion, such

implements may have been intended "to prevent the return of the soul into the body." ¹⁰⁰ Frequently the deterrent effect of these objects has been attributed to the magical quality of iron, ¹⁰¹ and while it is beyond the scope of this article to deal with the subject adequately, I cannot help wondering if the weight and sharpness of iron were not originally the significant characteristics (weight for holding the body down, sharpness for puncturing it), especially since there are common reports of other, non-ferrous implements being used in this way. Often, for example, we are told of sharpened stakes that have been driven into graves, so that the body might be punctured if it tries to come to the surface, ¹⁰² and Krauss describes both knives and hawthorn stakes being used in this way in Serbia. ¹⁰³

Also, in addition to those cases where the sharp object is clearly meant to puncture the body, there are others where its function has apparently been reanalyzed, as when Strackerjan reports that, in Oldenburg, the needle with which the shroud was sewn had to be laid into the coffin—not just any needle would do.¹⁰⁴

And finally it must be noted that such puncturing of the dead body is as common now as in the past, and for some of the same reasons. In Guyana, for example, after the Jonestown massacre, a doctor was sent in to puncture the bloating corpses so they would not burst. 105 And the practice of embalming, which in the U.S. dates from the time of the Civil War (because bodies were being brought home by train), may be viewed as a kind of preemptive strike against "vampirism," in that it is intended to prevent all those messy events that are brought about by decomposition.

Embalming, incidentally, might seem to imply a radically different conception of the afterlife than does cremation, since the one method preserves the body while the other destroys it. Looked at another way, however, the two methods have the same function: both render the body inert—unable to develop into something ugly and threatening. Puncturing the body, on the other hand, while it would have an immediate and dramatic effect on the condition of the body, would not end the process of change, which may explain why, so often in the history of vampirism, we find that bodies were dug up repeatedly and each time "killed" in some new way, until eventually—as with de Tournefort's vrykolakas—they were cremated.

As for cremation, it proves to be a rather complicated subject, an understanding of which requires some consideration of the physics of combustion. I shall discuss it in detail in a book that is currently in press.

18. Keeping the revenant in his grave by pinning the body or weighing it down. Here again we are seeing methods of dealing with a purely mechanical problem: the tendency of the corpse, having bloated, to dis-

turb the surface of the earth, or even to pop up to the surface if the ground is waterlogged. I have before me a photograph (from the second page of the Los Angeles Times, dated 11/1/85) that shows a coffin floating in a flooded graveyard, in Louisiana. According to the caption, several coffins floated up out of the ground in the floodwaters left by Hurricane Juan. This particular one was tied to a tree by someone who believed, apparently, that a dead body could not only leave the grave, under the right conditions, but could not even be counted on to remain in its vicinity. Sealed coffins, like bloated bodies, are remarkably buoyant.

It must come as no surprise to find that we have large quantities of archaeological evidence demonstrating that bodies were in fact frequently pinned or weighed down. Ludwig Pauli describes such burials in detail in his book on Celtic beliefs, and Edmund Schneeweis observes that the gravestone originally was intended to keep the dead person in his grave. ¹⁰⁶ Burkhart, incidentally, argues that, of all the methods of laying the dead, the oldest is probably that of *mechanically* holding the body in place. ¹⁰⁷ Clearly the reason why this is so is that bodies tend not to stay put, both because of their buoyancy and because they are attacked by animals.

19. Controlling revenants by means of their compulsions. The accounts of revenants being obliged to unravel nets appears to be a reinterpretation of a common practice of keeping bodies in their graves by means of nets. Erhard Eylmann, in his Die Eingeborenen der Kolonie Südaustralien, gives an account of aborigines wrapping the body in a net "so that the dead person would not leave the grave and do harm to the living." It may be, then, that the original purpose of this practice was forgotten—the net was intended as a mechanical restraint—and a reinterpretation came into being, according to which the net was there to give the revenant something to do. The use of the various grains may have been an extension of the idea of occupying the revenant.

Even in modern times, incidentally, the net is sometimes mentioned merely as a means of keeping a body from becoming a revenant, with no reference to his practice of unravelling the net.¹⁰⁹

20. Flames come out of the mouth of the vampire. As implausible as this seems at first sight, it is actually likely that something of this sort would, in fact, happen when a "vampire" was cremated. This is because the body of the supposed vampire is swollen to bursting with the gases of decomposition, and these gases (mostly methane) are highly flammable. Since the gases are forming interstitially within the tissues as well as within the thoracic and abdominal body cavities, the staking of the body, while it will release some of the gas, will not release all of it by any means—especially when you consider that, throughout much of Slavic

territory, the stake had to be driven in at one blow. A second blow revived the vampire. This is perhaps one of the reasons why the last-resort method of disposing of a vampire is always that of burning him.

While I had no doubt that flames would shoot from the body of a burning "vampire," I thought it best to get the opinion of an authority and asked Dr. Allen about this theory. He offered me a more striking confirmation than I could have hoped for, saying that he had a colleague who had acquired the habit of dramatizing the presence of gases in a dead body by touching them off with a match when he made his first incision. The resulting flame, according to Dr. Allen, shot between one and two feet in the air.

21. When a vampire is killed in his grave, he is apt to scream or groan and to move suddenly, and fresh blood flows from his wounds. It must be remembered that what is being "killed" is a bloated corpse. An attempt to drive a stake into it will force air past the glottis, which is still intact, thereby creating a very life-like groan. Such sounds (Pensold refers to this as the "Totenlaut") are common even when a body is moved, let alone when the thoracic cavity is being violently compressed, as would happen in the staking of a vampire. Among medical personnel the reaction to such sounds is likely to be one of humor, as when an attendant, on hearing a body groan, said to Dr. Allen, "Don't hurt him!" I have also heard an account—and here we may have entered the domain of legend—of a bystander who was asked to help carry a body and, when it emitted a sound, dropped his end, saying, "If he can talk, he can walk."

It takes little imagination to conceive of how such sounds would affect the people engaged in attempting to kill a vampire. Incidentally, we have other, more pedestrian accounts in which the sounds are not interpreted as a human scream or groan at all. Wuttke, for example, cites an account in which the sound is compared to the squeal of a pig.¹¹¹ And Aribert Schroeder quotes the following account from eighteenth-century Serbia:

The investigation of the doctors determined that the four questionable corpses, which had lain in the earth for twenty days, had remained incorrupt. Out of fear that vampires or snakes might take them over, the inhabitants of the village beheaded the corpses, drove a stake into the man's heart, whereupon they heard a loud cracking sound, and burned all the corpses.¹¹²

Several things about this account are particularly interesting. First of all, note that, as in many accounts of revenants, we are told that authorities have been brought in, people who might be expected to know about dead bodies. Second, note how little these authorities actually did know, as is suggested by their astonishment at finding that the bodies had not decayed, underground, in a period of twenty days. Man's final decay had

long since been a literary motif, but not, it seems, a scientific study.

Finally, note the "overkill." The body is beheaded, a stake is driven into the heart, and the corpse is then burned. The account itself is very straightforward, but the rather extreme efforts to kill the revenant hint at the climate of fear in which the events took place. The hysteria over vampirism can be seen in Köhler's accounts of conflicts, in the eighteenth century, between citizens and the authorities over whether a suicide (i.e., a potential revenant) was to be buried in the churchyard—conflicts that were often resolved by military force. 113

As for the movement of the body, clearly this occurs because the attempt to drive a stake through it causes a redistribution of the gases of decomposition—much like what happens when you push down on a balloon. I have conducted no experiments here, for all the obvious reasons.

The blood, of course, is not really fresh at all (as de Tournefort points out, by the way): it is the fact that it is *liquid* that shocks the vampire-killers. We have seen that this is a normal circumstance under certain conditions.¹¹⁴ Here again one needs little imagination to conceive of the effect a bleeding corpse would have on people who already suspected that it was still alive.

22. Garlic will protect one from a revenant. I find myself wondering if garlic was originally a specific against the stench from the dead body, on the principle that one strong smell may be opposed with another. De Tournefort, as we have seen, describes the Greeks using frankincense to mask the odor, and de Groot, in *The Religious System of China*, makes the following remarks:

It is a general conviction that any one who calls at a mortuary house incurs a kind of pollution, especially so if death has been untimely or caused by disease. Some condolers therefore wisely hide a few garlic roots under their garments, convinced that the strong smell will prevent the influences of death from clutching to their bodies; on leaving the house they throw the roots away in the street.¹¹⁵

Note that in China, as in Europe, the garlic is held to be useful when one is in the presence of a dead body, but in de Groot's account, it is specifically the strong smell that is held to be the active agent. This passage, by the way, clearly implies an awareness of contagion. One sees this also in accounts of how everything associated with the dead person—the utensils he ate with, the water used to wash him, the straw he lay on—must be thrown out, burned, or buried with him. As de Groot's text suggests, such "pollution" (i.e., contagion) is most to be feared when death is "untimely or caused by disease." The "vampires" illustrate this principle

well: the fear of them was simply the fear of death, brought about by agents that were known to be contagious, while the actual mechanism of contagion was not understood. (Since we do understand the mechanism, we are not afraid to "catch our death" from a victim of stroke; but our recent experience with the AIDS epidemic has had some similarities with the vampire scares of the past.)

23. Vampires and other revenants are frequently described sitting up after death, sometimes in the grave or coffin. Such stories are so persistent, and they occur over such a wide area, 116 that I finally began to wonder if there was something to them, although I could not think of a satisfactory explanation. The evidence remains contradictory: Dr. Allen, for example, while himself doubting that such is possible, nonetheless tells me that a colleague of his claims to have seen a movie of this very phenomenon.

The Blums quote a classic instance of such real or supposed movement of the body:

On my mother's island a man was very ill and became unconscious. The people thought that he had died, and so they prepared the funeral. After the ceremony there was a movement in the coffin and slowly the man began to rise. Well, the people there believed he was becoming a vrikolax; in their fright they threw everything they could find at him—sticks, rocks, anything. In that way they did kill him when before he had only been in a coma.¹¹⁷

The incident may have happened this way. But if we suppose that the body can in fact "sit up like a Turk" after death, as it is frequently described doing,¹¹⁸ then we would have a plausible explanation for why it is that such bodies—as in the above account—always seem to end up being dead after all.

The Greeks make distinctions between different types of revenants, and the distinctions seem always to be related to demonstrable physical characteristics of dead bodies. This can be seen most easily in the etymologies of the terms for the revenant (except for *vrykolakas*, which is clearly borrowed from the Slavic):¹¹⁹

- 1. $\tau \nu \mu \pi \alpha \nu \iota \alpha \hat{\iota} os$: "drum-like," because of the taut, distended skin, resulting from the bloating of the body.
- 2. ἄλυτος: "unloosed," which is to say, incorrupt. The body has not decayed.
 - 3. σαρκωμένος: "one who has put on flesh." That is: bloated.
 - 4. ἀναικαθούμενος: "one who sits up" in his grave.
- 5. καταχαναs: Lawson derives this last from the Greek word for "gape." I may be more persuaded of this etymology than Lawson was, as I

can attest, by grace of the L.A. Medical Examiner's Office, that the gape of a decomposing body (brought about by the swelling) is a particularly striking and unforgettable sight. This is one of the reasons why, even now in Greece, the mouth is tied shut.¹²⁰

In addition, he gives three terms— $\dot{\alpha}\nu\dot{\alpha}\rho\rho\alpha\chi o$, $\lambda\dot{\alpha}\mu\pi\alpha\sigma\mu\alpha$, $\lambda\dot{\alpha}\mu\pi\alpha\sigma\rho\sigma$ —that he finds unintelligible. The second two would seem to be derived from the root $\lambda\alpha\mu\pi$ —, from which our lamp is derived, and should mean, respectively, "that which is lit up" (abstract noun) and "that which lights up" (agent form). Lawson would seem to be ignoring the obvious etymologies because they do not appear to make sense—unless, that is, one notices that such terms all seem to be related to the condition of a dead body. Then one need only look for a mechanism whereby a dead body can give off light, and W. E. D. Evans, in *The Chemistry of Death*, describes such a mechanism:

It was observed in antiquity that dead fish and meat could appear to glow with a pale light, and the wonder and fear that this must have brought to primitive man observing the phenomenon in the darkness of night or the gloom of a cave can well be imagined. Old stories, often re-told, linger on in oral tradition telling of the glowing of exhumed human remains

These fearful concomitants to the exposure of entombed or buried bodies seem to have become unfashionable in recent years; perhaps modern times have made mankind too familiar with death, and by scientific pathways have come sophistication and disenchantment. At all events, the luminescence of remains is now to be explained by natural, rather than supernatural history.

Luminescence of dead animal remains is most commonly due to contamination by luminous bacteria such as Photobacterium fischeri, the light emanating from the organisms and not from reactions in the decomposing tissues. The organisms swarm over the remains and give light, particularly while the temperature is in the range of 15° to 30° C. 121

The first word, $\dot{\alpha}\nu\dot{\alpha}\rho\rho\alpha\chi_0$, would seem to be derived from $\dot{\alpha}\nu\dot{\alpha}$ plus $\dot{\rho}\alpha\chi\dot{\iota}s$ ("up" plus "spine"), which becomes plausible when you consider that revenants are commonly reported sitting up after death and that Lawson has already given one derivation that suggests this habit (#4).

If this is so, then we are confronted with the following conclusion: most native Greek words for the revenant refer to demonstrable physical characteristics of a dead body. It seems most reasonable to conclude that the two concerned with sitting up do so too.

The matter is not easily resolved, but there is certainly no doubt that some movement is possible after death. Rigor mortis causes all the muscles to stiffen, and because the flexor muscles of the arms are stronger than the extensors, the arms may move slightly across the chest. Moreover,

when rigor mortis ends, as it must, gravity may again cause some movement, which could account in part for the extremely common stories of bodies being found in a changed position.¹²² (The bloating and bursting of the body would also change its position, and such changes presumably contribute to the idea that the body had left the grave.)¹²³ Cremation causes considerable movement of the corpse.¹²⁴ And movement would certainly occur—seemingly at the volition of the corpse—if one were to try to adjust the limbs of the body while it was in rigor mortis: they would spring back to their original position.

Finally, though, I must acknowledge that I have not found sufficiently clear evidence here to persuade me that I have located the source of this tradition. It may be that the phenomena are brought about by funerary or burial practices that I am not taking into account.

24. Vampirism and class. It is only in fiction that a vampire is likely to be from the upper classes—Count Dracula, for example. Actually, rich and important people tend to be buried properly, and their families have sufficient influence to prevent them from being dug up again. Consequently, the classic vampire—in folklore, at least—far from being the urbane count that the movies have introduced us to, tends to be a peasant with a drinking problem.¹²⁵

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It has been remarked that vampire stories occur only in areas where the dead are buried, not where they are cremated, 126 and the reasons for this will now be obvious. It will also be clear why it is that such stories are by no means an isolated phenomenon but occur world-wide. They tend to correlate with the practice of exhumation, as in Greece, Bulgaria, and Serbo-Croatia, and the local variations are based on such things as whether the blood at the lips, combined with the bloating, is taken to be evidence of blood-sucking. Since the phenomena being observed are quite diverse, one would also expect to encounter in folklore creatures that are seemingly quite different from the revenant but are related by their origin: carrion-eating ghouls, for example, like those of India, 127 which serve to account for the process of decomposition, except that here the body in the grave is viewed as the victim rather than the monster. It should be an easy matter, in fact, to predict reflexes of the phenomena of decomposition; we might look for creatures that swell up, change color. drip blood, refuse to die, burst (as do trolls, for example), and give off a noisome stench.

It should also be profitable to consider the possibility that certain changes in funerary customs—the cremations of the Urnfield Culture, for example—came about not because of changes in religious beliefs, but

because there was an "epidemic of vampirism." Such epidemics would tend to occur when people were forced to look closely at the decomposition of corpses, as in times of plague. Because of this, a reconsideration of the history of funerary practices would seem to be in order, approaching the question from the point of view that it is in fact very difficult to dispose of a body in such a way as to keep it disposed of, and that our funerary practices probably reflect ever-renewed attempts to deal with this problem.

And finally, after having gone to such lengths to argue that the lore of the vampire arose out of misconceptions concerning the nature of decomposition, I must concede that there are well-attested accounts of actual dead bodies being involved in the drinking of human blood. It is not as people believed, however, for by a peculiarly gruesome and chilling irony, the blood of the supposed vampire was regarded as a specific against vampirism and was baked in bread, 128 painted on the potential victim, 129 or even drunk. 130 Blood was actually consumed, in other words, but by the "victims," and it was the blood of the supposed vampire.

The vampires themselves, it would appear, were and are dead.

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NOTES

- 1. Jean-Jacques Rousseau, Lettre à l'Archevèque de Paris, quoted in: Voyslav M. Yovanovitch, "La Guzla" de Prosper Mérimée (Paris, 1911), p. 316. All translations are my own unless otherwise indicated.
- 2. From the Mercure galant, 1693-4; quoted in: Stefan Hock, Die Vampyrsagen und ihre Verwertung in der deutschen Litteratur (Berlin, 1900), pp. 33-34.
- 3. Johannes Flückinger's account quoted in: Georg Conrad Horst, Zauber-bibliothek, (Mainz, 1821), vol. 1, p. 256.
 - 4. Ibid., pp. 257-58.
- 5. Basil Copper, The Vampire in Legend, Fact, and Art (Secaucus, N.J.: The Citadel Press, 1974), p. 44.
- 6. See, for example, G. Willoughby-Meade, Chinese Ghouls and Goblins (New York, 1928), p. 224.
- 7. L. Strackerjan, Aberglaube und Sagen aus dem Herzogthum Oldenburg (Oldenburg, 1867), vol. 1, p. 154. See also Christo Vakarelski, Bulgarische Volkskunde (Berlin: Walter de Gruyter & Co., 1968), p. 30.
- 8. W. R. S. Ralston, The Songs of the Russian People (London, 1872), p. 409. See also J. C. Lawson, Modern Greek Folklore and Ancient Greek Religion (Cambridge, England, 1910), p. 408; Vakarelski, p. 30.

- 9. Adolf Wuttke, Der deutsche Volksaberglaube der Gegenwart (Hamburg, 1860), p. 222.
 - 10. Loc. cit.
- 11. Rossell Hope Robbins, The Encyclopedia of Witchcraft and Demonology (New York: Crown Publishers, 1959), p. 523. See also, Friedrich Krauss, Slavische Volksforschungen (Leipzig, 1908), p. 125; Lauri Honko in: Wörterbuch der Mythologie (Stuttgart, 1973), "Finnish Mythology," in vol. 2, p. 352.

Vampirism can also come about by a variety of other means, as when an animal jumps over the corpse. Space does not permit a complete accounting here, but I shall discuss these in detail in a book that is currently in press.

- 12. Raymond McNally and Radu Florescu, In Search of Dracula (New York: Galahad Books, 1972), p. 148. See also Elwood B. Trigg, Gypsy Demons and Divinities: The Magic and Religion of the Gypsies (Secaucus, N.J.: The Citadel Press, 1973), p. 155; W. Mannhardt, "Über Vampyrismus," Zeitschrift für deutsche Mythologie und Sittenkunde 4 (1859): 259-82; R. P. Vukanovic, "The Vampire," Journal of the Gypsy Lore Society 37 (1958): 30; Krauss, p. 130; Trigg, p. 155; Vakarelski, p. 239. Vukanovic's article was published in installments; I shall cite it by the year.
- 13. Trigg, p. 157. See also B. Demetracopoulou Lee, "Greek Accounts of the Vrykolakas," *Journal of American Folklore* 55 (1942): 131; Joseph Klapper, *Schlesische Volkskunde auf kulturgeschichtlicher Grundlage* (Breslau, 1925), p. 213; Fr. von Hellwald, *Die Welt der Slawen* (Berlin, 1890), p. 369; Mannhardt, p. 271; Vukanovic (1958), p. 22, 25; Hock, p. 29.
- 14. Hock, p. 3. See also Ernst Bargheer, Eingeweide. Lebens- und Seelenkräfte des Leibesinneren im deutschen Glauben und Brauch (Leipzig, 1931), p. 82; Mannhardt, p. 264.
- 15. Montague Summers, The Vampire, his Kith and Kin (New York: University Books, 1960), p. 161. See also Bernhardt Schmidt, Das Volksleben der Neugriechen und das hellenische Alterthum (Leipzig, 1871), vol. 1, p. 164; Juljan Jaworskij, "Südrussische Vampyre," Zeitschrift des Vereins für Volkskunde 8 (1898): 331; Lawson, p. 387.
- 16. Hock, pp. 31-32, 43-44. See also Johann Heinrich Zedler, *Grosses vollständiges Universal-Lexikon* (Graz: Akademische Druck- und Verlagsanstalt, 1962), vol. 44, p. 664. This is a reprint of an edition published in 1745. See also Mannhardt, pp. 269, 274; Bargheer, pp. 78-79, 85.
- 17. Dagmar Burkhart, "Vampirglaube und Vampirsage auf dem Balkan," in Beiträge zur Südosteuropa-Forschung (Munich, 1966), p. 219. See also Krauss, p. 125.
 - 18. Summers, p. 179. See also Mannhardt, p. 275.
- 19. Ibid. See also Edmund Schneeweis, *Serbokroatische Volkskunde* (Berlin: de Gruyter & Co., 1961), p. 9; Vukanovic, 38 (1960): 47; Lawson, p. 367.
- 20. Pitton de Tournefort, Relation d'un voyage du Levant (Paris, 1717) vol. 1, p. 133. See also Hanns Bächtold-Stäubli, Handwörterbuch des deutschen Aberglaubens (Berlin: de Gruyter, 1934/1935), vol. 6, p. 818; Richard Beitl, Deutsches Volkstum der Gegenwart (Berlin, 1933), p. 32; Bargheer, p. 84.

21. Johann Heinrich Zopf, Dissertatio de vampyris serviensibus (Duisburg, 1733), p. 7. See also Maximilian Lambertz in Wörterbuch der Mythologie, p. 490; Schneeweis, Serb., p. 9.

- 22. Rade Uhlik, "Serbo-Bosnian Gypsy Folktales, N. 4," *Journal of the Gypsy Lore Society* 19 (1940): 49. See also Vakarelski, p. 239; Schneeweis, *Serb.*, p. 10; Lee, p. 128; Vukanovic (1960), p. 49; Trigg, pp. 154-55.
- 23. Schneeweis, Serb., p. 9; Vukanovic (1958), p. 23; Schmidt, p. 168; Trigg, p. 154; Hock, p. 27; Lawson, p. 368.
 - 24. Burkhart, p. 219; McNally and Florescu, p. 150.
- 25. Julius von Negelein, Weltgeschichte des Aberglaubens, vol. 2: Haupttypen des Aberglaubens (Berlin and Leipzig: de Gruyter, 1935), p. 124. See also Jan Machal, Slavic Mythology (Boston, 1918), p. 231; Dmitrij Zelenin, Russische (Ostslavische) Volkskunde (Berlin and Leipzig: de Gruyter, 1927), p. 328; Paul Geiger, "Die Behandlung der Selbstmörder im deutschen Brauch," Archiv für Volkskunde 26 (1926): 158.
 - 26. Hock, pp. 24, 36; Hellwald, p. 368.
- 27. Friedrich Krauss, "Vampyre im südslawischen Volksglauben," Globus. Illustrierte Zeitschrift für Länder und Volkskunde, vol. 61 (Braunschweig, 1892), p. 326. See also Hellwald, p. 368.
- 28. Agnes Murgoçi, "The Vampire in Roumania," Folklore 37 (1926): 328. Also Veselin Čajkanović, "The Killing of a Vampire," Folklore Forum 7:4 (1974): 261. Translation by Marilyn Sjoberg. Originally published in Belgrade in 1923. See Adelbert Kuhn, Sagen, Gebräuche und Märchen aus Westfalen (Leipzig, 1859), p. 175, for early accounts of staking in Saxo Grammaticus and Burchard of Worms.
- 29. Trigg, p. 152. See also G. F. Abbott, *Macedonian Folklore* (Cambridge, 1903), p. 219.
- 30. Wuttke, p. 221. See also J. D. H. Temme, Die Volkssagen von Pommern und Rügen (Hildesheim: Georg Olms Verlag, 1976), p. 308. Originally published in Berlin in 1840. And Paul Drechsler, Sitte, Brauch und Volksglaube in Schlesien (Leipzig, 1903), p. 317; Klapper, p. 212; Franz Tetzner, Die Slawen in Deutschland (Braunschweig, 1902), p. 462. Archaeologically, such beheading is well attested. See, for example, Ludwig Pauli, Keltischer Volksglaube (Munich: C. H. Beck'sche Verlagsbuchhandlung, 1975), pp. 145-46.
- 31. Augustine Calmet, The Phantom World, ed. Henry Christmas (London, 1850), vol. 2, p. 38. This is a translation of his Dissertations sur les apparitions des anges, des démons et des esprits, et sur les revenants et les vampires (Paris, 1746). See also Hock, p. 42; Bargheer, p. 37; Burkhart, p. 222; Lawson, p. 412.
- 32. August Löwenstimm, Aberglaube und Strafrecht (Berlin, 1897), p. 103. See also Christopher Frayling, The Vampyre, A Bedside Companion (New York: Scribner, 1978), p. 30; Robert Pashley, Travels in Crete (London, 1837), vol. 2, p. 201; Krauss, pp. 133, 135; Trigg, p. 157; Čajkanović, p. 261.
- 33. See Aribert Schroeder's account following. See also Arthur and Albert Schott, Walachische Maerchen (Stuttgart and Tübingen, 1845), p. 297; Edm. Veckenstedt, Wendische Sagen, Märchen und abergläubische Geschichten (Graz, 1880), pp. 354-55; and Harry A. Senn, Were-Wolf and Vampire in Romania, East

European Monographs (Boulder, 1982), p. 67, for a summary of methods of killing the vampire.

- 34. Summers, p. 202; Schmidt, p. 167-68; Bächtold-Stäubli, p. 819; Jaworskij, p. 331; Iván Balassa and Gyula Ortutay, *Ungarische Volkskunde* (Budapest: Corvina Kiadó, and Munich: C. H. Beck, 1982), p. 726.
 - 35. Hock, p. 28.
- 36. Dieter Sturm and Klaus Völker, Von denen Vampiren oder Menschensaugern (Carl Hanser Verlag, 1968), p. 524; Arthur Jellinek, "Zur Vampyrsage," Zeitschrift des Vereins für Volkskunde 14 (1904): 324; Bargheer, p. 86; Mannhardt, pp. 260, 262, 264-65; Bächtold-Stäubli, p. 819; Hellwald, pp. 367, 370; Abbott, pp. 219-20; Beitl, p. 187; Wuttke, p. 222; Trigg, p. 153; Hock, p. 28; Murgoçi, p. 341.
- 37. Schneeweis, Serb., p. 9. See also Norbert Reiter (Slavic) in Wörterbuch der Mythologie, p. 201; Vukanovic (1958), p. 23.
- 38. Mannhardt, p. 264, 268; Zedler, *Universal-Lexikon*, vol. 46, p. 478; Vukanovic (1960), p. 47; Drechsler, p. 318; Bächtold-Stäubli, pp. 818-19; Hock, pp. 31-33; Trigg, p. 157; Edward Tylor, *Primitive Culture* (London, 1871), vol. 2, p. 176; Joseph von Görres, *Die Christliche Mystik* (Regensburg, 1840), p. 282.
 - 39. Murgoçi, p. 334; Vakarelski, p. 305.
- 40. Hellwald, pp. 371-72; Abbott, p. 219; Trigg, pp. 142, 149; Bächtold-Stäubli, p. 818.
- 41. Voltaire made a remark to the effect that vampires are not to be found in London or Paris (quoted in Sturm and Völker, p. 484).
- 42. Tekla Dömötör, Volksglaube und Aberglaube der Ungarn (Corvina Kiadó, 1981), p. 122. Krauss points out that Medvegia, which Arnold Paole made famous, was actually in Serbia under Hungarian rule (Krauss, S.V., p. 131). See also Bargheer, p. 81 and Mannhardt, p. 273.
- 43. Grigore Nandris, "The Historical Dracula: The Theme of His Legend in the Western and in the Eastern Literatures of Europe," Comparative Literature Studies 3:4 (1966): 369. See also Senn, p. 41 ff. I am indebted to Dr. Senn for his helpful clarification (in conversation) of some details relating to the history and folklore of Romania, especially in the matter of Dracula. Incidentally, there is some question as to which of several Vlads in Romanian history was Stoker's model.
- 44. John Glaister and Edgar Rentoul, *Medical Jurisprudence and Toxicology* (Edinburgh and London: E. and S. Livingstone, 1966), p. 117. See also Albert Ponsold, *Lehrbuch der gerichtlichen Medizin* (Stuttgart: George Thieme Verlag, 1957), pp. 290-96.
 - 45. Glaister, pp. 115-16; Ponsold, pp. 292-93.
 - 46. Glaister, p. 120.
 - 47. Ibid.
- 48. Aidan and Eve Cockburn, Mummies, Disease and Ancient Cultures (Cambridge University Press, 1982), p. 1. (Abridged paperback edition.)
 - 49. Glaister, p. 124.
 - 50. Glaister, p. 121.
- 51. Christian Fischer, "Bog Bodies of Denmark," in: Cockburn, p. 177. Translated by Kirstine Thomsen. See also P. V. Glob, *The Bog People*, translated from

the Danish by Rupert Bruce-Mitford (New York: Ballantine, 1973); and Alfred Dieck, Die europäischen Moorleichenfunde. Göttinger Schriften zur Vor- und Frühgeschichte, ed. Herbert Jankuhn (Neumünster: Karl Wacholtz Verlag, 1965).

- 52. Richard and Eva Blum, *The Dangerous Hour: The Lore of Crisis and Mystery in Rural Greece* (New York: Charles Scribner's 1970), p. 71. Hock (p. 23) also remarks that people who are not buried at all tend to become vampires. See also E. H. Meyer, *Mythologie der Germanen* (Strassburg, 1903), p. 94.
 - 53. Strackerjan, p. 154.
 - 54. Glaister, p. 121.
- 55. Charles Creighton, A History of Epidemics in Britain (Cambridge, 1891), vol. 2, p. 165.
 - 56. Creighton, vol. 2, p. 167.
- 57. Schneeweis, Serb., p. 90. One would expect to find a correlation between "vampirism" and the custom of exhumation. This seems to be present in the Balkans. The duration of the first burial may be from three to eighteen years, after which the body is dug up again: "If the body has still not disintegrated, then it is believed that a curse weighs on it." (Schneeweis, Serb., p. 103). Note that this custom implies that bodies may not disintegrate even after years in the grave, let alone days or months.

For a discussion of the practice of exhumation in Greece, see Loring M. Danforth, *The Death Rituals of Rural Greece* (Princeton, N.J.: Princeton University Press, 1982). Danforth describes inhumations taking place after five years, in the area where he did his research. Lawson (p. 372) and the Blums (p. 75) mention a time span of three years. See Vakarelski (p. 309) for an account of exhumations in Bulgaria.

- 58. Murgoçi, p. 327.
- 59. Krauss, "Vampyre," p. 327.
- 60. Glaister, pp. 111-12.
- 61. Hans Naumann, *Primitive Gemeinschaftskultur. Beiträge zur Volkskunde und Mythologie* (Jena, 1921), p. 49. Also Vukanovic (1958), p. 23: ". . . it is believed that the body which is to become a vampire turns black before burial."
- 62. Pauli, p. 175. See also Geiger, p. 159; Reiter, p. 201; Zelenin, p. 393; Mannhardt, pp. 260, 270; Čajkanović, p. 264; and Věroboj Vildomec, *Polnische Sagen*, introduction and notes by Will-Erich Peuckert (Erich Schmidt Verlag, 1979), p. 78.
 - 63. See note #57: exhumation correlating with vampirism.
- 64. Edmund Schneeweis, Feste und Volksbräuche der Lausitzer Wenden (Nendeln, Liechtenstein: Kraus Reprint, 1968), p. 81. Original publication: Leipzig, 1931. There are at least two other reasons, by the way, for blood to appear at the mouth of a corpse: a traumatic injury may cause this (as in a murder victim), as will pneumonic plague, which causes vomiting of blood. See Creighton, vol. 1, p. 122.
- 65. Ronald and Catherine Berndt, *The World of the First Australians* (Chicago: University of Chicago Press, 1965), p. 410. Lawson (p. 405) says that, on the Greek island of Chios, "the woman who prepares the corpse for burial places on its lips a cross of wax or cotton-stuff"

- 66. Wuttke, p. 222. See also Klapper, p. 213, and the account from the *Mercure galant* (Section I).
- 67. John Hunter, African Rifles and Cartridges (Highland Park, N.J.: The Gun Room Press, 1977), facing p. 342. Reprint of 1948 edition.
- 68. Burkhart, p. 222; Trigg, p. 156; Vukanovic (1960), p. 45, and (1959), p. 117; Otto Knoop, Sagen und Erzählungen aus der Provinz Posen (Posen, 1893), p. 139.
- 69. Bächtold-Stäubli, p. 814. This interpretation is also suggested in a curious nineteenth-century Hungarian novel that analyzes the vampire lore. I found a German translation of the novel. Ferenz Köröshazy, Die Vampyrbraut (Weimar, 1849), p. 268. (On the title page, the author's name is given in reverse order, in the Hungarian manner.) See also Karl Bartsch, Sagen, Märchen und Gebräuche aus Mehlenburg (Vienna, 1879), p. 93.
 - 70. Trigg, p. 154.
 - 71. Vakarelski, p. 239.
- 72. See, for example, Sturm and Völker, pp. 511, 526, 441, 442, 444; Edward Westermarck, *Ritual and Belief in Morocco* (London, 1926), vol. 2, p. 548; and Bargheer, p. 79.
 - 73. Glaister, p. 52.
 - 74. Cockburn, p. 1.
- 75. Jens P. Hart Hansen, Jørgen Meldgaard, and Jørgen Nordqvist, "The Mummies of Qilakitsoq," *National Geographic* 167:2 (February, 1985): 190-207. See p. 201. See Trigg, p. 146, for long teeth of vampire; also, Otto Knoop, "Sagen aus Kujawien," *Zeitschrift des Vereins für Volkskunde* 16 (1906): 96.
- 76. J. J. Hess, Von den Beduinen des innern Arabiens (Zürich and Leipzig: Max Niehans Verlag, 1938), p. 164. Note, in this connection, the practice of throwing a rock or twig onto the place where someone was killed: Schneeweis, Wenden, pp. 100-101; Geiger, p. 163; Felix Drechsler, Zur Volkskunde (Heilbronn, 1879), pp. 282-83.

Edward Tripp of Yale University Press pointed out to me that, considered from this perspective, it makes sense that Anubis, the Egyptian god of tombs and embalming, would be represented with the head of a jackal. Jackals would in fact "preside" over the disposal of the dead, given the opportunity.

For an account of coffins designed to prevent bears from breaking in and eating the corpses, see Milovan Gavazzi, "The Dugout Coffin in Central Bosnia," *Man* 53 (1953), no. 202, p. 129.

For burial methods designed to protect the coffin from wolves, see Philip Tilney, "Supernatural Prophylaxes in a Bulgarian Peasant Funeral," *Journal of Popular Culture* 4: 1 (1970): 222, 223.

- 77. Vukanovic (1960), p. 49; Trigg, p. 155.
- 78. Burkhart, p. 243.
- 79. Lambertz, in Wörterbuch der Mythologie, p. 490.
- 80. Bargheer, p. 84. I have in my files a newspaper account of an event of this sort: "A hand protruding from an incline near the Harbor Freeway led to the discovery of the badly decomposed body of an adult male" [Los Angeles Times]
 - 81. E. H. Meyer, p. 96.

- 82. Murgoçi, p. 332.
- 83. See Burkhart, citing Schneeweis, p. 239, n. 141. Also, Löwenstimm, 93-103; Friedrich Haase, *Volksglaube und Brauchtum der Ostslaven* (Hildesheim/New York: Georg Olms Verlag, 1980), p. 329 (reprint of 1939 edition); Zelenin, also p. 329. Also, Geiger (Switzerland): disposal of bodies in water, pp. 153, 155-56.
- 84. See, for example, Haase, p. 302; E. Cabej, "Sitten und Gebräuche der Albaner," Rev. Int. des Études Balk. (1934-35), p. 224; Vakarelski, pp. 303, 309; G. Lemke, Volksthümliches in Ostpreussen (Mohrungen, 1884), vol. 1, p. 56.
- 85. Grettir's Saga, translated by Denton Fox and Herman Pálsson (University of Toronto Press, 1974), p. 72; Vakarelski, p. 307; Lemke, vol. 3, p. 51.
 - 86. Grettir's Saga, p. 72, for rocks; Zelenin, p. 327, for brush.
- 87. P. V. Glob gives numerous examples of this in *The Bog People*. See also Pauli, pp. 174-79; Schneeweis, *Wenden*, p. 102; Geiger, 158. Dieck (pp. 50-127) catalogues the methods of holding down the bodies.
 - 88. Hock, p. 42; Tetzner, p. 461.
 - 89. E. H. Meyer, p. 96.
 - 90. Reiter, in Wörterbuch der Mythologie, p. 201.
- 91. Schneeweis, Serb., pp. 88, 104; Krauss, S.V., pp. 127-28; Vukanovic (1958), p. 22; Trigg, p. 152; Burkhart, p. 220.
 - 92. Beitl, D.V.G., p. 45.
 - 93. Reiter, p. 201.
- 94. Jan Perkowski, "The Romanian Folkloric Vampire," East European Quarterly 16:3 (September, 1982): 313.
- 95. Árpád Csiszár, "A hazajáró lélek," A nyiregyházi Jósa András Muzeum Évkönyve, 8-9 (1965-6): 159-96. Summary in German: pp. 199-201. See p. 200.
- 96. Balassa and Ortutay, p. 673. See also Vakarelski, p. 305; Schneeweis, Serb., p. 88; and Adolf Schullerus, Siebenbürgisch- sächsische Volkskunde im Umriss (Leipzig, 1926), p. 125.
 - 97. Dömötör, pp. 251-52.
 - 98. For death-figure with scythe: Vakarelski, p. 311; with sickle: Haase, p. 301.
 - 99. Burkhart, pp. 215, 229. See also Schneeweis, Serb., p. 11.
 - 100. Schneeweis, Wenden, p. 85.
 - 101. Trigg, p. 152.
- 102. Stith Thompson, Motif-Index of Folk Literature (Helsinki, 1932), vol. 2, p. 380, E442: "Ghost laid by piercing grave with stake." See also Sebestyén Károly, "Speerhölzer und Kreuze auf dem Széklerboden," Anzeiger der ethnographischen Abteilung des ungarischen National-Museums (1905), vol. 2, p. 99; Burkhart, p. 243; Ernö Kunt, Volkskunst ungarischer Dorffriedhöfe (Budapest: Corvina Kiadó, 1983), p. 40. Translation into German by Valér Nagy.
- 103. Krauss, S. V., p. 127. In some areas thorns are put into the grave (see Schott, p. 198).
 - 104. Strackerjan, p. 154.
- 105. Los Angeles Times, Nov. 21, 1978.
- 106. Schneeweis, Serb., p. 106; Pauli, pp. 174-79; Naumann, p. 105; Mann-

- hardt, p. 269; Karl Brunner, Ostdeutsche Volkskunde (Leipzig, 1925), p. 195; Fischer (in Mummies), pp. 178, 182, 192.
 - 107. Burkhart, p. 223.
- 108. Erhard Eylmann, Die Eingeborenen der Kolonie Südaustralien (Berlin, 1908), p. 232.
- 109. Beitl, D.V., p. 187; Schnεeweis, Serb., p. 88; Vakarelski, p. 303.
- 110. Hellwald, p. 370; Schneeweis, Serb., p. 10; Vakarelski, p. 303.
- 111. Wuttke, p. 222.
- 112. Aribert Schroeder, *Vampirismus* (Frankfurt, 1973), pp. 45-46. The words used here may very well refer to the sound created by the splitting open of the swollen body cavity.
- 113. J. A. E. Köhler, Volksbrauch, Aberglauben, Sagen und andere alte Überlieferungen im Voigtland (Leipzig, 1867), pp. 257-58. See also Zelenin, p. 329; Löwenstimm, p. 98 ff.
- 114. Zopf (*Dissertatio*, pp. 11-12) cites an essay, published in 1732, in which it is remarked that it is in fact not abnormal for a corpse to bleed this way.
- 115. J. J. M. de Groot, *The Religious System of China* (The Hague, 1892-1910), vol. 1, p. 32.
- 116. Not just in Europe: "It is, according to the Chinese, by no means a rare thing in their country for corpses to sit up on their death-bed and strike terror and fright into the hearts of their mourning kinsfolk," de Groot, vol. 5, p. 750. A Chinese acquaintance from Peking also mentioned this belief to me in conversation. See also Westermarck, p. 449.
 - 117. Blum and Blum, p. 71.
- 118. The Turks being not only the bugbears of the Greeks but also the westernmost culture that did not necessarily use chairs. "Sitting up like a Turk," then, could mean sitting with legs straight out. Murgoçi cites the expression, p. 119; also, Raymond T. McNally, A Clutch of Vampires (Greenwich, Connecticut: New York Graphic Society, 1974), p. 191.
 - 119. Lawson, p. 377. The following etymologies are all Lawson's.
 - 120. Danforth, p. 52.
- 121. W. E. D. Evans, *The Chemistry of Death* (Springfield, Illinois: Charles C. Thomas, 1963), pp. 10-11. See also R. L. Airth and G. E. Foerster, "Some Aspects of Fungal Bioluminescence," *Journal of Cellular and Comparative Physiology* 56 (1960): 173-82.
 - 122. See, for example, Trigg, p. 156.
- 123. Markus Köhbach, "Ein Fall von Vampirismus bei den Osmanen," Balkan Studies 20 (1979): 89.
 - 124. Evans, p. 84.
- 125. Ralston, p. 409; Zelenin, pp. 329-30; Haase, p. 329; Löwenstimm, p. 102. Such alcoholic vampires were blamed for droughts, having continued beyond death their habit of drinking everything in sight.
- 126. Hock, p. 1; Burkhart, p. 250; Wilhelm Hertz, *Der Werwolf* (Stuttgart, 1862), p. 126; Richard Andree, *Ethnographische Parallelen und Vergleiche* (Stuttgart, 1878), p. 81.

- 127. Trigg has an informative discussion of these: pp. 145, 178-79.
- 128. Mercure galant, quoted in Hock, p. 34.
- 129. See "Stana" in Section I. Also Arnold Paole in Sturm and Völker, p. 451.
- 130. Burkhart, p. 221; Perkowski, "Rom. Folk. Vamp.," p. 316; Wuttke, pp. 221-22; Richard Beitl, *Deutsche Volkskunde* (Berlin, 1933), p. 188; Mannhardt, pp. 261-62.

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