

The problem of the permissibility of autopsies has often been a difficult and painful one for observant Jews. While TRADITION is not the place to offer halakhic decisions, we do want to offer our readers some insights into the historical and halakhic background of the problem. The Very Rev. Dr. Jakobovits is an authority on medico-legal problems in the Halakhah, and has written about them extensively. He is Chief Rabbi of the Jewish Communities in Ireland, and has recently been in America on a lecture tour.

THE DISSECTION OF THE DEAD IN JEWISH LAW

A Comparative and Historical Study *

Moral autonomy or moral automation — that is the most fateful choice confronting mankind today. As long as the moral law reigns supreme, the spectacular advances in science and technology will be effectively controlled by the overriding claims of human life and dignity. Man will be safe from the menace of his own productions. But when the quest for knowledge and power is unhemmed by moral considerations, and the fundamental rights of man are swept aside in the blind march to mechanical perfection, the ramparts protecting mankind from self-destruction are bound to crumble. Today the struggle between science and religion is no longer a competitive search for the truth as in former times. It is a battle between excesses and controls, between the supremacy of man's creations and the supremacy of man himself.

In the past, the human inventive genius served mainly to aid nature in the amelioration of life. Now it bids fair to supplant nature, replacing it by an artificial, synthetic existence in which the deepest mysteries of creation are not only laid bare but subjected to the arbitrary whims of mechanised man. The push of one button can now exterminate life by the million; psychologically waged advertising campaigns can determine the eating habits of

* We have retained the British spelling and usage in Dr. Jakobovits' article —Ed.

whole nations; chemical drugs can curb or release human emotions at will, and break down the most determined will-power to extract confessions. The control over man's conscience, over procreation and extinction, over human existence itself is being wrested from nature and surrendered to scientists and technicians.

In this new dispensation the physician, too, is playing an ever more vital rôle. Human life, which he can artificially generate out of a test-tube and terminate out of a syringe-needle, is now at his bidding. Psychiatry may soon bring even human behaviour under his sway, almost like a robot plane guided by a remote radio operator. But who will control the physician and the growing army of other scientists? That is the crux of the moral dilemma of our times.

There can be little doubt that, of all practical sciences, it is pre-eminently medicine with which Judaism, historically and intellectually, enjoys a natural kinship, and to which Jewish law is best qualified to address its reasoned, pragmatic rules of morality. For many centuries rabbis and physicians, often merging their professions into one, were intimate partners in a common effort for the betterment of life. The perplexities of our age challenge them to renew their association in the service of human life, health, and dignity. Indeed, they challenge Judaism itself to reassert its place as a potent force in the moral leadership of humanity.

I.

Jewish law has insisted from the beginning that the physician may practise his art only by virtue of an express sanction granted to him by God.¹ The control over health, life, and death is essentially a Divine prerogative.² It cannot be exercised by man except in so far as he is delegated by the Creator to do so. Even the setting aside of religious precepts for the preservation of life is

1. Cf. "He shall cause him to be thoroughly healed" (Ex. xxi. 19)—from here [it is deduced] that permission is given to the physician to heal' (*Berakhot* 60a; *Baba Kamma* 85a).

2. Cf. "I kill, and I make alive; I wound and I heal; and there is none that can deliver out of My hand" (Deut. xxxii. 39). See also commentaries of Rashi and Tosaphot, on *Baba Kamma* 85a; Abraham ibn Ezra, on Ex. xxi. 19 and xv. 26; and Nachmanides, on Lev. xxvi. 11.

The Dissection of the Dead in Jewish Law

not a natural right but a scriptural mandate.¹ For in the Jewish view man's claim to any inalienable rights, whether in life or in death,² derives primarily from his creation "in the image of God."³ In other words, man is the recipient of rights and God the giver; He alone can confer and define those rights.

In accordance with these basic principles, Jewish legislation has always asserted its right to intrude into the domain of the physician (no less than of the rabbi⁴). Its provisions include precise regulations on the doctor's duty to heal, his professional charges, his legal responsibilities, and his title to ignore certain religious laws in his medical work. But above all it sets out to define and circumscribe his rights in cases where human life and dignity may be at stake. Hence the detailed laws on such operations as artificial insemination, sterilisation, contraception, abortion, and euthanasia.

Since the biblically assigned rights of a person, as we have mentioned, extend beyond death, Jewish law must obviously also concern itself with the problem of dissection. The subject occupies considerable and constantly growing space in current rabbinic literature. The final verdict is still a matter of debate. We shall here attempt to trace the origins and development of that debate in its historical and comparative context, from antiquity to the present day.

II.

In the Talmud, the ultimate source of Jewish law, the dissection of human corpses *for medical ends* is not mentioned. This is not surprising. At the time of the Talmud, anatomical experiments on humans were entirely unknown. There had been some occasional excursions into this field in ancient times, but all these early steps into human anatomy were soon abandoned, usually because of

1. "Ye shall therefore keep My statutes . . . , which if a man do, he shall live by them" (Lev. xviii. 5)—that *he shall live by them*, and not that he shall die by them' (*Yoma* 85b). See also Maimonides, *Yad, Hil. Shabbat*, ii. 3.

2. Cf. "And if a man have committed a sin worthy of death, and he be put to death, and thou hang him on a tree; his body shall not remain all night upon the tree, but thou shalt surely bury him the same day; for he that is hanged is a reproach unto God. . . ." (Deut. xxi. 22-23).

3. Gen. i. 26, 27.

4. Rabbis and physicians are often governed by identical rules of professional conduct; for several examples, see *Tur* and *Bet Yoseph, Yoreh De'ah*, cccxxxvi.

TRADITION: A Journal of Orthodox Jewish Thought

religious restraints in one form or another. The first dissections in China are ascribed to the legendary physician Pien Ch'ioa many centuries before the Alexandrian exploits in this branch.¹ But these operations came to be regarded as incompatible with religious piety and were, with rare exceptions, discontinued until modern times.² In ancient India, where medicine and surgery had developed to a high standard, the dissection of the human body was opposed on religious grounds,³ even if some non-surgical methods for exposing the internal organs were very occasionally tolerated.⁴ The Syriac *Book of Medicines* has a few references to human dissection,⁵ due no doubt to the impact of the Alexandrian school where the author had studied in the 2nd century B.C.E.⁶ In Greece, the classical home of medicine, the study of anatomy may go back to Aristotle⁷ or even earlier savants.⁸ But any sustained advances were rendered impossible not only by the failure to appreciate its importance for medical purposes, but also by social and religious prejudices,⁹ particularly the insistence on immediate burial.¹⁰ Even in Egypt, where it had long been customary to disembowel and embalm the dead, anatomical science failed to gain from the experience because of religious scruples. Although the Bible expressly states that Jacob's body was embalmed by "the physicians" in Egypt,¹¹ the belief that it was an act of gross impiety gradually militated against the employment of doctors. Consequently, the operation was left to special functionaries, the "Paraschite," who became an object of popular execration.¹²

1. See D. Campbell, *Arabian Medicine and its Influence on the Middle Ages*, 1926, vol. i, p. 8.

2. See M. Neuburger, *History of Medicine*, 1910, vol. i, p. 62 f.; and A. Castiglioni, *A History of Medicine*, 1947, p. 102.

3. See Th. Puschmann, *A History of Medical Education*, 1891, p. 14.

4. See Neuburger, *op. cit.*, p. 48; and Castiglioni, *op. cit.*, p. 88.

5. See E. A. W. Budge, *Syrian Anatomy, Pathology and Therapeutics; or "the Book of Medicines"*, 1913, vol. i, p. clxii f.; and vol. ii, pp. 107 and 129.

6. See Budge, *op. cit.*, vol. i, p. xlvii.

7. See Puschmann, *op. cit.*, p. 57.

8. See Th. C. Allbutt, *Greek Medicine in Rome*, 1921, p. 98.

9. See G. Wolff, "Leichenbesichtigung und Untersuchung bis zur Carolina als Vorstufe gerichtlicher Sektion," in *Janus*, vol. xliii (1938), p. 228 f.

10. See Neuburger, *op. cit.*, p. 150.

11. Gen. 1. 2.

12. See G. Maspero, *The Dawn of Civilisation: Egypt and Chaldea*, ed. A. H. Sayce, 1910, p. 216; Puschmann, *op. cit.*, p. 23; and Castiglioni, *op. cit.*, p. 59.

The Dissection of the Dead in Jewish Law

The only real break in this deep-rooted antagonism to dissection in antiquity occurred at Alexandria in the 3rd century B.C.E. At that Egyptian outpost of Hellenistic culture the new anatomical science flourished for a time virtually unhampered. But even that interlude was of short duration. By the time Galen commenced his medical education in 146 C.E. the practice of human dissection had already ceased everywhere for half a century.¹ From that time even the faintest scientific research into the human body was not initiated again until over twelve centuries later.

The earliest Jewish reference to the practice is a remarkable statement, generally overlooked by medical historians, by the Alexandrian philosopher Philo. He speaks of "... physicians of the highest repute who have made researches into the construction of man and examined in detail what is visible and also, by careful use of anatomy, what is hidden from sight in order that, if medical treatment is required, nothing which could cause serious danger should be neglected through ignorance."² This passage may, of course, reflect local influences rather than Jewish teachings, but its unqualified endorsement of anatomical dissection is nonetheless notable.

III.

In talmudic times, then, the whole problem was no longer acute, since dissection for medical research had fallen completely into disuse. There is no foundation for the allegation³ that the Babylonian Talmudist Rab of the 3rd century "bought cadavers and dissected them,"⁴ nor do any facts justify the claim by the medical historian Baas that "dissection in the interests of science was permitted by the Talmud."⁵ Yet there is some evidence to

1. See C. Singer, "Galen as a Modern," in *Proceedings of the Royal Society of Medicine*, vol. xlii (1949), p. 565.

2. Philo, *De special. leg.*, iii. 117; see translation by F. H. Colson, *Loeb Classical Series*, vol. vii, p. 549 f.

3. First made by E. Carmoly (*Histoire des médecins juifs*, 1844, p. 12) and later endorsed by R. Landau (*Geschichte der juedischen Aerzte*, 1895, p. 15).

4. The allegation is based on a passage in the Talmud (*Sanhedrin* 47b) in which the use of earth from Rab's grave is justified for curing a fever; ostensibly that indicated the people's desire to avenge Rab's (alleged) dissection of the dead by destroying his grave. In fact, the passage evidently describes some form of homage to a saint; see J. Preuss, *Biblisch-Talmudische Medizin*, 1911, pp. 45 and 184.

5. H. Baas, *Outlines of the History of Medicine*, 1889, pp. 37 and 295 (note 2).

support the assertion by some historians¹ that dissections and autopsies on humans were carried out by the authors of the Talmud, albeit only very occasionally and never for medical purposes. In fact, the Talmud records several significant references to the subject, all of them of importance to our problem.

In one passage² the Palestinian teacher of the 1st century, Rabbi Yishmael, relates that the Ptolemaic Queen Cleopatra once delivered her female slaves, following their execution for treason, to the king for anatomical investigations; he opened their bodies and studied the stages in foetal development.³ In a more important statement,⁴ the Babylonian sage-physician Samuel records that the disciples of the same Rabbi Yishmael⁵ once boiled⁶ the body of a condemned prostitute to ascertain the exact number of bones in human beings.⁷ Practical researches must also be presupposed for the detailed list of human bones given in the Mishnah,⁸ particularly since the figure given is at variance with the less accurate number listed by the Greek physicians.⁹ In other places the

1. A. H. Israels, *Collectanea gynaecologica ex Talmude Babylónico*, 1845; cited by H. H. Ploss and M. Bartels, *Woman*, ed. E. J. Dingwall, 1935, vol. i, p. 380 f.; and Puschmann, *op. cit.*, p. 30.

2. *Tosephta, Niddah*, iv. 17; cf. *Niddah* 30b, where the account is slightly varied.

3. A similar report is mentioned by the Roman historian Pliny (*Nat. Hist.*, xix. 27); see Preuss, *op. cit.*, p. 44. Cf. J. Needham, *A History of Embryology* 1934, p. 47.

4. *Bekhorot* 45a.

5. Rabbi Yishmael, though also a physician, probably did not carry out the operation himself because he was of priestly descent; see Preuss, *op. cit.*, p. 46.

6. Hebrew: "shalak." This is translated as "slit," "anatomised," or "dissected" by J. Levy (*Neuhebraeisches und Chaldaeisches Woerterbuch*, vol. iv, p. 566), A. Kohut (*Aruch Completum*, 1926, vol. viii, p. 90) and M. Jastrow (*A Dictionary of the Targumim, etc.*, 1926, p. 1588). But Preuss (*op. cit.*, p. 48), supported in a note by Immanuel Loew, maintains that the word should here, as usual, be rendered "cooked" or "boiled hard." Preuss therefore believes that this may be the only mention of boiling as a method of dissection in antiquity, a method otherwise unknown until Vesalius introduced it.

7. I. L. Katzenelsohn (*Ha-talmud vechokhmat Ha-refu'ah*, 1928, p. 237 f.) regards this experiment as the first return to human anatomy since Herophilus and Erasistratos of Alexandria.

8. *Oholot*, i. 8. See Katzenelsohn, *loc. cit.*

9. Thus I. M. Rabinowitch (*Post-Mortem Examinations and Jewish Law*, 1945, p. 25 [note]) argues that the Talmudic figure—at 248 to 252 bones—approximates more closely the findings of modern anatomy (assigning 270 to the new-born, 350 at the age of 14 years and 206 after middle life) than the number given by Hippocrates (111) or Galen (over 200).

The Dissection of the Dead in Jewish Law

Talmud speaks of "hands soiled through [handling] blood, foetal growths and placentas" for ritual enquiries;¹ of one sage who had kept the skull of King Jehoiakim in his home;² of another who had held up a bone of his tenth son to comfort mourners;³ and of a third who admitted that "he used to bury the dead and to observe their bones," whereby he studied the osteological effects of alcoholism.⁴

None of these statements deals specifically with anatomical experiments for purely medical ends.⁵ They therefore hardly imply an unconditional sanction of human dissection. But it is noteworthy that no voice of protest was raised against these practices, a fact all the more remarkable since Jewish law in general rigorously upholds the inviolability of the human body in death as in life. It condemns any undue interference with the corpse as an execrable offence against the dead. Though never explicitly set forth in the Talmud, the prohibition to disgrace or disfigure the dead was always assumed as a logical extension of the biblical ban⁶ on allowing even a criminal's body to remain unburied overnight.⁷ The prohibition itself, and the question whether it can be waived for legal purposes, is mentioned in two discussions on the right to defile the dead for procuring evidence in litigations — the one criminal and the other civil. The outcome of both discussions is not altogether conclusive. The circumstances in the first case (a murder charge) were such as would in any event render the findings of an autopsy, had it been permitted, irrelevant to the conviction of the suspected offender and insufficient for his complete acquittal.⁸ But the trend of the argument suggests that the Talmud would not rule out post-mortem examinations for

1. In a statement ascribed to King David (*Berakhot* 4a).

2. *Sanhedrin* 82a.

3. *Baba Batra* 116a.

4. *Niddah* 24b.

5. With the exception of the last three statements, which have no bearing on medicine, all the preceding accounts deal with observations for ritual purposes. The formation of the foetus affects the laws of uncleanness in cases of miscarriages. The number of bones in the body determines the defilement caused by touching an incomplete skeleton. The examination of blood and other discharges is necessary to decide whether a woman is ritually pure or not.

6. See p. 79 note 2 above.

7. See *Sanhedrin* 46b.

8. *Chullin* 11b.

forensic purposes if the results might yield crucial information to the court.¹ In the other case permission for an exhumation to ascertain the age of the deceased (in support of legal claims by his relations) was refused as an unwarranted sacrilege, but only on the additional grounds that the features might have changed after death; moreover, it is argued that the obligation to accept financial loss rather than disturb the dead may apply to the relations only.² Altogether, the Talmud rules "whatever is done in honour of the living does not constitute a disgrace to the dead,"³ but the context in which this occurs deals merely with delays in carrying out the burial.

To the extent, then, to which these talmudic sources are relevant to our problem, Jewish law became heir to a rather tolerant attitude to dissection. But it must be emphasised, before applying these arguments to medical needs, that the cases in the Talmud just mentioned deal only with very minor infringements of the peace of the dead. Furthermore, there was generally a sharp distinction between legal autopsies and scientific dissections. The anatomical experiments at Alexandria, and later at Bologna and elsewhere, were quite independent of medico-legal dissections which developed as a separate discipline and not as a branch of scientific anatomy.⁴

We may here digress for a while to look at the corresponding development within Christianity. While the decline of anatomy in the 1st century of the Common Era can hardly be ascribed to the as yet quite insignificant influence of the new faith,⁵ the Christian tradition of disapprobation was set quite early. Already in about 400, St. Augustine had declared: "With a cruel zeal for science, some medical men who are called anatomists have dissected the bodies of the dead, and sometimes even of sick persons who have died under their knives,⁶ and have inhumanly pried into the

1. See Rabinowitch, *op. cit.*, p. 28; and Preuss, *op. cit.*, p. 46.

2. *Baba Batra* 154a and b; see R. Gershom, *a.l.*

3. *Sanhedrin* 47a.

4. See Wolff, *op. cit.*, pp. 226 and 285.

5. Vesalius himself attributed the decline of dissection since ancient times to the practice of entrusting manual operations to barbers "who were too ignorant to read the writings of the teachers of anatomy"; see translation by B. Farrington, in *Proceedings of the Royal Society of Medicine*, vol. xxv (1932), p. 1357; cited by B. J. Stern, *Society and Medical Progress*, 1941, p. 13.

6. The charge of human vivisection, repeated by Augustine elsewhere (*De*

The Dissection of the Dead in Jewish Law

secrets of the human body in order to learn the nature of the disease and its exact seat and how it might be cured.”¹ Tertullian, two centuries later, is said to have “hated dissection.”² Although the early Church never issued a formal ban on anatomy, the idea of dissection must have outraged Christian sentiment.³ It was regarded as a violation of man’s dignity and as incompatible with the belief in bodily resurrection. Even the dissection of animals was not always possible, since the student was in danger of being taken as a magician.⁴

IV.

As we enter the second millenium, we find little change in this outlook. The progress of anatomy was slow and tortuous. At the School of Salerno in the 11th century, often described as the first university, the ape used by Galen was replaced by the pig,⁵ because it was thought to resemble man internally — a belief already found in the Talmud.⁶ But human corpses were still excluded, probably because of the opposition of the Church.⁷ Scientific interest in the human cadaver did not begin to revive until the 13th century. In 1238 Frederick II ordered that a corpse should be dissected every five years for study purposes⁸ — the first mention of dissection as an established practice,⁹ even if the

anima, iv. 3 and 6), was already levelled by the 1st century writer Celsus (*Proem*) against the Alexandrian anatomists; it was also sustained by Tertullian (*De anima*, x). It is probably quite unjustified; see C. Singer, *The Evolution of Anatomy*, 1925, p. 34 f.

1. Augustine, *The City of God*, lib. xxii, cap. xxiv (*A Select Library of the Nicene and Post-Nicene Fathers of the Christian Church*, ed. Ph. Schaff, 1903, vol. ii, p. 503); see Stern, *op. cit.*, p. 179 f.

2. Singer, “Galen as a Modern,” *op. cit.*, p. 570.

3. H. E. Sigerist, “Die Geburt der abendlaendischen Medizin,” in *Essays on the History of Medicine, presented to K. Sudhoff*, ed. Singer and Sigerist, 1924, p. 196.

4. See Puschmann, *op. cit.*, p. 144.

5. *Ibid.*, p. 202.

6. *Ta’anit* 21b. The belief survived to modern times, though Tyson had dismissed it as a “vulgar error”; see F. J. Cole, *A History of Comparative Anatomy*, 1944, p. 49.

7. See D. Riesman, *Medicine in Modern Society*, 1939, p. 94.

8. See Puschmann, *op. cit.*, p. 244.

9. See Mary N. Alston, “Attitude of the Church to Dissection before 1500,” in *Bulletin of the History of Medicine*, vol. xvi (1944), p. 225 f.

instruction was purely nominal.¹ At Bologna dissections were introduced later in the same century.² The first clear reference to a post-mortem examination dates from 1286, when a physician at Cremona investigated the cause of a pestilence then raging in Italy, and the first "modern" work on anatomy was published by Mondino de' Luzzi in 1316, following public dissections at Bologna University.³

Thenceforth, the renewed interest in dissection spread only in small stages. It was officially sanctioned — with certain safeguards which usually restricted the subjects to criminals — at Venice in 1368, at Montpellier in 1375, and at Lerida in 1391.⁴ These experiments, still of little scientific value, generally served to illustrate ancient medical texts rather than foster independent research. The public displays of "anatomies" often turned into academic feasts, to which the civil and ecclesiastical authorities were invited.⁵ Anatomical demonstrations did not commence in Paris, Vienna, and Prague until the 15th century,⁶ while at Padua the study of anatomy was not included in the elaborate medical curriculum in the middle of that century.⁷ Even in the 16th century dissections were not common.⁸ Paracelsus still "despised anatomy and failed to see how any knowledge could be gained from the dead body."⁹ Only some years later was the entire outlook changed by the great pioneer in anatomy, Vesalius.¹⁰ In Italy, Holland, and France dissection as a means of teaching anatomy began to be quite frequent only in the 17th century; in Germany and England it was introduced later still.¹¹ At most European universities regular anatomical instruction on cadavers was not initiated until the beginning of the 18th century.¹²

1. See W. Osler, *The Evolution of Modern Medicine*, 1921, p. 146.

2. See C. Singer, *The Evolution of Anatomy*, 1925, p. 71.

3. *Ibid.*, p. 73; and Puschmann, *op. cit.*, p. 244 f.

4. See Puschmann, *op. cit.*, p. 247.

5. See Sigerist, *op. cit.*, p. 196 f.; and Castiglioni, *op. cit.*, p. 375.

6. See Puschmann, *op. cit.*, p. 249 f.

7. See Osler, *op. cit.*, p. 116.

8. *Ibid.*, p. 148; and H. Rashdall, *The Universities of Europe in the Middle Ages*, 1936, vol. i, p. 148.

9. D. J. Guthrie, *A History of Medicine*, 1945, p. 159.

10. *Ibid.*

11. See F. H. Garrison, *An Introduction to the History of Medicine*, 1929, p. 282.

12. *Ibid.*, p. 398.

The Dissection of the Dead in Jewish Law

Throughout this tedious progress of the new science, the religious prejudice against dissection faded only very gradually and then often reappeared. By an extraordinary coincidence, it happened twice — in 1300 and in 1737 — that the Christian and Jewish authorities made pronouncements, quite independently of each other and yet on strikingly similar subjects, with an important bearing on dissection; in both cases the two religions adopted opposing viewpoints. In 1300 Pope Boniface VIII issued a Bull which banned the practice of boiling human corpses (presumably of crusaders who had died far from their homes) to facilitate their removal to consecrated burial grounds.¹ Medical and social historians are about equally divided in their views on the Bull's relevance to anatomical studies. While some discount the influence of the Bull,² many others aver that, even if the edict was not specifically directed against anatomists, it certainly fortified the public abhorrence of dissection and was, in fact, largely responsible for delaying the progress of anatomy.³ It is certain that some pioneers in anatomy were hindered in their work by theological considerations⁴ or opposition,⁵ that religious prejudice was mainly

1. For the text of this Bull, see J. J. Walsch, *The Popes and Science*, 1912, p. 32 ff.

2. So H. Haeser (see *Catholic Encyclopedia*, vol. i, p. 458), J. L. Pagel (*ibid.*), M. Neuburger (*Geschichte der Medizin*, 1906, vol. ii, p. 432), Walsch (*op. cit.*, p. 28 ff.), Garrison (*op. cit.*, p. 161), Rashdall (*op. cit.*, vol. i, p. 244 f.), and Castiglioni (who omits the reference to the Bull altogether).

3. S. R. Virchow ("Morgagni and the Anatomical Concept," in *Bulletin of the History of Medicine*, vol. vii [1939], p. 981), R. Park (*An Epitome of the History of Medicine*, 1903, p. 93), Baas (*op. cit.*, p. 295), Puschmann (*op. cit.*, p. 245), Allbutt (*op. cit.*, p. 476), Stern (*op. cit.*, p. 177 ff.) and Singer (*op. cit.*, p. 85 f.).

4. Thus Mondino declared: "The bones which are below the 'os basilare' cannot well be seen unless they are removed and boiled, but owing to the sin involved in this I pass them by" (*From the Fasciculo di Medicina*, Venice, 1493; ed. C. Singer, 1925, p. 96).

5. Around 1340 the famous physician Guido de Vigevano expressly stated (in his *Anatomy*) that the Church forbade dissection; see Alston, *op. cit.*, p. 225 f. In 1519 Pope Leo X denied Leonardo da Vinci admission to the hospital at Rome, where he wished to study anatomy, because he had engaged in dissection; see J. P. McMurrick, "Leonardo da Vinci and Vesalius," in *Medical Library and Historical Journal*, vol. ix (1906), p. 344; cited by Stern, *op. cit.*, p. 177. A little later Vesalius complained that "the ecclesiastical caucus would not countenance the vivisection of the brain" (see Cole, *op. cit.*, p. 57) and that in Madrid he could not lay his hands on as much as a dried skull; see M. Forster, *History of Physiology*, 1901, p. 17.

responsible for the objections to dissection until its introduction at the various universities,¹ and that the practice often required ecclesiastical sanction,² sometimes to be obtained from the popes as an indulgence.³ Gradually the resistance eased. In 1556 Charles V received the following reply to an enquiry from the theological faculty at the University of Salamanca: "The dissection of human cadavers serves a useful purpose and is therefore permissible to Christians."⁴ But the undercurrent of theological misgivings did not finally disappear until Prospero Lambertini, later Pope Benedict XIV, expressed the official attitude of the Catholic Church as favouring the practice for the advancement of the arts⁵ and sciences in unequivocal terms in 1737.⁶ Since then the Church has raised no objection to medical dissection.⁷

The stagnation of medieval anatomy and surgery has also been attributed to the "superstitious horror of mutilating a corpse" among Jews and Arabs,⁸ and to "the Jewish tenets, adopted by the Mohammedans, [which] compelled students to be satisfied with making their observations on the carcasses of brutes."⁹ Among the Arabs religious opposition to dissection was certainly

1. See Rashdall, *loc. cit.*; Puschmann, *op. cit.*, p. 327; and Sigerist, *op. cit.*, p. 197.

2. In 1482 Pope Sixtus IV authorised dissections provided ecclesiastical sanction was first obtained, a practice again confirmed by Pope Clement VII in 1524; see Singer, *The Evolution of Anatomy*, p. 85 f.; and Castiglioni, *op. cit.*, p. 368.

3. See G. Sarton, *Introduction to the History of Science*, 1927, vol. ii, pp. 783 and 1081; and Stern, *loc. cit.*

4. See A. H. Buck, *The Growth of Medicine from the Earliest Times to about 1500*, 1917, p. 346.

5. From the 15th century onwards, experimental anatomy was greatly stimulated by the desire of artists to portray the human body realistically. Among those who engaged in dissection were Verrocchio, Andrea Manegno, Lucio Signorelli, Pollajuolo, Donatello, Leonardo da Vinci, Albrecht Durer, Michelangelo, and Raphael; see Stern, *op. cit.*, p. 49; and Guthrie, *op. cit.*, p. 135.

6. See Alston, *op. cit.*, p. 221 ff. For the full text of the reply, see Th. Puschmann, *Handbuch der Geschichte der Medizin*, 1902, vol. ii, p. 227; and Walsch, *op. cit.*, p. 58 f.

7. The present-day Code of Canon Law only regards the "dishonouring of the bodies of the dead by theft or other crimes committed on the bodies or graves of the deceased" as a penal offence, but not dissection for medical ends; see S. Woywood, *A Practical Commentary on the Code of Canon Law*, 1926, vol. i, p. 526; and vol. ii, p. 479.

8. Rashdall, *op. cit.*, vol. ii, p. 136.

9. P. L. Burshell, *Ancient History of Medicine*, 1878, p. 18.

The Dissection of the Dead in Jewish Law

explicit and sustained.¹ The Koran itself expressly forbids the opening of a corpse, even if the person should have swallowed the most valuable pearl which did not belong to him.² This was always applied in support of the ban on anatomical dissection at Turkish,³ Persian, and other Mohammedan universities.⁴ In 1838 the law was amended to permit the dissection of Christian and Jewish bodies, though not of Moslems.⁵ But in practice the religious prohibition of dissection was usually upheld even in very recent times.⁶

It is clear from our records that the Jews, too, did not actually make any significant contributions to the advancement of anatomy in the Middle Ages. But it is highly questionable whether this was due to any religious inhibitions, as has been claimed by even so knowledgeable a master of Jewish medical history as Harry Friedenwald.⁷ There is absolutely no substance in the charge, first made by Jean Astruc⁸ early in the 18th century and later often repeated,⁹ that the laws of ritual defilement militated against the dissection of human bodies. These laws do not prohibit the touching of a dead body (except to Jews of priestly descent); they merely lay down the conditions of impurity resulting from such contact and the procedure to be adopted to regain ritual cleanliness.¹⁰ True, the duty to inter all human remains is reinforced by the fear lest some unburied parts might cause a priest to be unwittingly defiled.¹¹ But this consideration would hardly prove a

1. See Puschmann, *Medical Education*, p. 163; Osler, *op. cit.*, p. 102; Garrison, *op. cit.*, p. 135; E. G. Brown, *Arabian Medicine*, 1921, p. 36 f.; and M. Meyerhof, "Science and Medicine," in *Legacy of Islam*, ed. T. Arnold and A. Guillaume, 1931, p. 344.

2. See Ploss and Bartels, *op. cit.*, vol. iii, p. 8.

3. See B. Stern, *Medizin, Aberglaube und Geschlechtsleben in der Tuerkei*, 1903, vol. i, p. 53.

4. See S. Muntner, "Persian Medicine and Its Relation to Jewish and Other Medical Science," in *The Hebrew Medical Journal*, vol. xxv (1952), p. 202.

5. See Stern, *op. cit.*, p. 54.

6. See Castiglioni, *op. cit.*, p. 284.

7. H. Friedenwald, *The Jews and Medicine*, 1944, vol. i, p. 192.

8. *Ibid.*, p. 251. Astruc (1684-1766) was himself of Jewish descent.

9. The charge occurs, for instance, in *The Healing Art the Right Hand of the Church*, 1859, p. 111 f.; and in *A General Exposition of the General State of the Medical Profession*, by "Alexipharmacus," 1829, p. 12.

10. See Preuss, *op. cit.*, p. 45; and Rabinowitch, *op. cit.*, p. 23 f.

11. For that reason graves should be marked; see *Mo'ed Katan* 5a. Following

popular medico-religious work first published in Venice in 1707; it depicts the body of (what appears to be) a Jew opened to expose the internal organs and compares them to the divisions of a house.¹

These few instances are obviously far too isolated to admit of any general conclusions on the Jewish religious attitude at the time. More significant may be the complete absence of rabbinic protests prior to the 18th century. Jewish leaders can scarcely have been unaware of the problem. Practical studies in anatomy, as we have shown, began to be well established at many European universities in the 17th century or even earlier, and the many Jewish physicians and medical students of that age are bound to have been confronted with the need from time to time to witness, or even to participate in, autopsies and the "anatomies" regularly performed at the medical schools. In fact, Jews were particularly concerned with this problem for another reason. Their corpses were often especially favoured by the anatomists. An anonymous tract of 1829 informs us that, "as the Jews bury early, their cemetery formerly produced the best and freshest subjects, equal in freshness to the body sent to the venal undertaker . . ."² The problem distressed the Jewish community in Padua already in 1680, when the students at the famous university demanded all Jewish corpses for their anatomical institute.³ Jews certainly objected to this wretched "body-snatching" no less bitterly than their neighbours, but there is no record of any condemnation of dissection itself in the prolific rabbinic literature of those centuries.

V.

It was not until 1737—the very year when the Christian debate finally concluded in favour of dissection—that the Jewish arguments against the practice first began. In that year a medical

1. The illustration is reproduced in *Jewish Encyclopedia*, vol. iii, p. 162; and in *Encyclopedia Hebraica*, vol. iv, p. 406.

2. *Address to the Public, Drawn from Nature and Religion, against the Unlimited Dissection of Human Bodies*, London, 1829, p. 7.

3. See S. W. Baron, *The Jewish Community*, 1942, vol. ii, p. 151; citing Antonio Ciscato, *Gli Ebrei in Padova*, Padua, 1901; see also *Jewish Encyclopedia*, vol. ix, p. 459. Complaints of "body-snatching" from Jewish cemeteries were also made in London in the 18th century (see *The Jewish Chronicle* [London], March 25, 1955) and in America in the 19th century (see p. 91, note 1 above).

The Dissection of the Dead in Jewish Law

student at the University of Goettingen asked R. Jacob Emden whether he could participate on the Sabbath in the dissection of dogs used in the absence of human material. The rabbi, one of the leading authorities of his age, replied that such operations on the Sabbath involved many prohibitions, whether they were performed on humans or animals. Moreover, in the case of human corpses, whether of Jews or not, it was in any case forbidden to derive any benefit from them.¹ Within the same century the question was treated again by R. Ezekiel Landau, the renowned scholar who died in Prague in 1793. He was asked on behalf of the rabbinical authorities in London whether they might accede to a request for an autopsy on a Jew—who had died after an operation for calculus in the bladder—to ascertain the proper treatment for similar cases in the future. The reply, while not advertng to the ban on benefitting from a human corpse, stated that such a post-mortem examination was an act of gross indignity to the dead, strictly prohibited in Jewish law. This consideration could be set aside only if there was a reasonable and immediate prospect of thereby saving a human life. But with no patient at hand to gain from the experience of the autopsy, its object was too remote to warrant the act. Moreover, “even non-Jewish doctors do not make anatomical experiments on any corpses except those of executed criminals or of people who gave their consent whilst alive; and if we were—Heaven forbid!—to be lenient in this matter, they would dissect all our dead in order to study the arrangement of the internal organs and their function so as to determine the medical treatment of the living.”²

Since the beginning of the 19th century, the problem has engaged the attention of almost all leading rabbis in numerous responsa. As the practice became more widespread and the religious difficulties it created more pressing, a number of new elements were introduced into the discussion. The great respondent R. Moses Schreiber, in a judgment dated 1836, accepted the position taken up by Emden and Landau; only he thought the ban on

1. J. Emden, responsa *She'ilat Ya'abetz*, part i, no. 41. As this decision is dated Shevat 15, 5497 (corresponding to January 17, 1737), the enquiry leading to it can hardly have been prompted by the similar question answered in Rome in the same year.

2. E. Landau, responsa *Noda Bi-yehudah*, part ii, no. 210; see Rabinowitch, *op. cit.*, p. 28 f.

desiring their sons to study anatomy or advocating the use of Jewish bodies should bequeath their own bodies for dissection. He would not allow even Jewish suicides and criminals to be delivered to the anatomists, since the Bible stressed the respect due to the dead specifically in regard to executed persons.¹ Exceptions might be made only in cases of people afflicted by some hereditary disease if an autopsy could help in the proper diagnosis and thus benefit the descendants.² A London rabbi, too, advised relatives not to give permission for post-mortem inquests, though they need not resist the demand for autopsies required by law.³ Even a scholar as modern in outlook and secular learning as Dr. David Hoffmann, the late Rector of the *Rabbiner Seminar* in Berlin, was not prepared to go beyond the restrictive position taken up by Ezekiel Landau nearly two centuries earlier.⁴

The opposition became especially bitter when rabbinical authorities were faced with the problem on a communal scale. For instance, when the "Prosectorium" in Warsaw demanded the supply of Jewish bodies for anatomical studies in 1924, the local rabbinate fiercely resisted the demand.⁵ Many rabbis insisted on the ban even if it meant the exclusion of Jews from medical schools or their estrangement from the Jewish faith, unless that attitude might provoke measures against the Jewish community in general.⁶ The actual delivery by the Warsaw Burial Society of a Jewish woman's corpse for dissection led to a great upheaval at the time.⁷ When the question was raised by a tuberculosis hospital in Denver, U.S.A., the leading American rabbis likewise maintained an uncompromising stand against the supply of Jewish bodies for dissection.⁸

Among the arguments to justify these objections—widely upheld right up to the present—were that dissections involved a proper "benefit" from the dead since they included acts and not merely

1. Y. J. Greenwald, *Kol Bo*, 1947, vol. i, p. 40 f.

2. *Ibid.*, p. 44 f.

3. Asher Gronis, *Peri Asher*, 1936, no. 3.

4. D. Hoffmann, responsa *Melamed Le-ho'il*, *Yoreh De'ah*, no. 109.

5. See Yehuda Meir Schapira, responsa *Or Ha-me'ir*, part i, no. 74.

6. *Ibid.*; see also David Menahem Babad, responsa *Chabatzelet Ha-sharon*, *Yoreh De'ah*, no. 95; and authorities cited by Greenwald, *loc. cit.*

7. See Elazar Hayim Schapira, responsa *Minchat Elazar*, part iv, no. 25; cited by Greenwald, *loc. cit.*

8. See *Yagdil Torah*, vol. vii, p. 17; and vol. viii; cited by Greenwald, *loc. cit.*

