



**STILL LIFE:
THE HUMANITY
OF ANATOMY**

A TEACHER'S GUIDE

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STILL LIFE: THE HUMANITY OF ANATOMY

INSPIRATION:

The Gross Anatomy Laboratory is a place where the living encounter and learn from the dead. It is also a rite of passage in medical education, where students are expected to overcome feelings of repugnance and fear as they engage in the frightening and taboo activity of dissecting human cadavers.

Various studies have shown that the Gross Anatomy experience can be disturbing to students. The problems range from mild and fleeting feelings of discomfort to more prolonged negative feelings, disturbed sleep, and bad dreams. Educational research has not yet asked whether the human experience of dissection can be a passage toward compassion and self-knowledge. *Still Life* is premised on the belief that moral and spiritual growth can emerge from the dissection experience—if students are encouraged to express, reflect on, and share their experiences of encountering the dead.

This film is designed in part as a tool for helping students confront and explore their personal relationship to the cadaver and to the person who once inhabited that body. It evokes reflections on objectivity and subjectivity in the lab; the unique and profound relationship between the dissector and the donor; and the fundamental paradox of relating to a human body as an “it” rather than a “thou.” The film can also be used to introduce the public to the ways students learn in the laboratory, and to encourage people to consider willed-body donations.

SYNOPSIS

Still Life is set in Galveston, at the University of Texas Medical Branch. It opens with a clip from *People Will Talk*. Cary Grant (playing an anatomy professor) announces:

“...as students of medicine, it is important at the onset, that you realize that a cadaver in a classroom is not a dead human being.”

Representing the traditional medical perspective, Cary Grant appears throughout the film, counterpointed by Dr. Cole, who affirms just how much humanity still inheres in a cadaver. Several first-year medical students, interviewed in the laboratory itself, describe their first cut. In poignant moments, they reveal their confusing and complicated personal feelings of fear, guilt, awe, and gratitude. One student calls into question the morality of dissection. Another notes that he “died a little” and his cadaver came to life “a little” in this transforming experience.

Mr. Bob Harvey, a willed-body donor, is interviewed at length by Dr. Cole. Mr. Harvey conveys his belief that once he is dead he doesn’t care about what happens to his body. He refers to it as “a tool” for students to learn from—an image quite at odds with the

feeling of guilt expressed by several students. Dr. Andrew Payer, Director of the Willed-Body Program, shares a vignette about a young man who donates his body and discusses the actual process of donation.

There is no extended or deliberate visual focus on the cadavers. The narrative thread is created by beautiful footage of an annual boat trip to spread the ashes of the cremated remains in the Gulf of Mexico. Interspersed throughout the film, this footage provides meditative spaces that encourage viewers to experience their own reactions.

PRESENTING THE FILM

We suggest that the film be shown fairly early in Gross Anatomy class meetings. If it is shown prior to any dissection, the students will have no personal experience with which to respond to the film. If it is shown late, the students will most likely have little use for the evocative questions raised by the film. They will have already “hardened” into whatever stance they take toward the cadaver.

The film can be shown in a large group with some discussion after, but we strongly recommend that small group discussions be held. At UTMB, we ask students to write brief (300-500 word) essays about their reactions to the film using various prompts.

SMALL GROUP DISCUSSION AND/OR BRIEF ESSAY TOPICS

These are only suggestions. Other topics may arise.

- ◆ Reactions: Did you agree or disagree with any particular things that were said or represented in the film?
- ◆ How do you look on the cadaver, for the most part? As a tool, a biological specimen, a once-living person, a sacred element of Creation, etc?
- ◆ What attitudes have you been encouraged to have about the cadaver, from your lab instructor and lab partners? Do you share those, or do you feel differently?
- ◆ Before you started medical school, had you thought about Gross Anatomy lab? What were your thoughts?
- ◆ Was there a moment when you knew that body had really lived? That this person was once as alive as you are now? What were you thinking and feeling?
- ◆ Was there a moment when you realized that one day you will be as dead as the cadaver you are working on? What was that like?
- ◆ What would you say to the cadaver, if you could communicate something? What would you want to know about your cadaver, if anything?
- ◆ Would you donate your own body to a Willed Body Program? Why or why not?
- ◆ If there were a way to learn Gross Anatomy without a human cadaver (digital web-based images, atlases, CD-ROMs, plastinated parts), would that be preferable? Why or why not?

SOME PROBLEMS AND ISSUES ENCOUNTERED

Resentment at the non-scientific focus of film and discussion. We found that some (few) students were almost angry at being asked to look at the “humanistic” side of dissection. They felt they had made their peace with the issue (primarily by seeing the cadaver as a biological specimen only) and resented being asked to think about such “touchy-feely” things as the previous personhood or moral status of the cadaver. We believe that these feelings of indignation should be respected, but we also believe that they can represent premature closure of the issues.

Feelings of “compassion” for the cadaver. Students can become confused about their *feelings* for the cadaver and the requirements for how to *treat* the cadaver. Some seemed to think we were asking them to feel “sorry for” the cadaver, or to have compassion for it—an impossibility, as compassion implies sharing the feelings of the object of compassion. Yet treating the cadaver respectfully as a “once living” being is important.

Respect for differences. Some students appeared to have difficulty appreciating the different stances taken by other students. For example, a student might say that “any intelligent person” knows the cadaver is only a specimen. Encouraging students to respect each other’s beliefs and feelings is important.

Discussion of disrespectful behavior towards cadavers, if any. There are numerous “urban legends” in every medical school about improper and disrespectful treatment of cadavers and body parts. Some students express real dismay about, for example, propping a book on the cadaver’s shoulder while working, or laughing during a dissection. But the Gross Anatomy lab is not a church and solemnity is not always the order of the day.

Over personalizing the cadaver. Students may wonder about the cadaver’s previous life and often fantasize about what it was like. For a few students, this can impede the ability to focus in on the physical structures and learn. Students vacillate between personalizing cadavers and depersonalizing them; dissection of head, hands, and pelvis are times of particular vulnerability for students

Attributing sensation to the cadaver. A few students may have difficulty with certain procedures, behaving as if the cadaver still had the ability to be hurt. In many UTMB essays, students used terms like “butchery,” “mutilation,” “violation,” and “desecration.” We would encourage instructors to help students clarify what they mean and to keep wrestling with a confusing paradox: the cadaver is a “presence that signifies an absence.”

Grading. It is difficult to give grades to essays on such personal and sensitive topics. We have experimented with letter grades and with Pass / No Pass / Honors options. The latter seems fairer, as students can write poorly crafted but heartfelt essays and still “pass.” We would only reserve the “no pass” option for students who did not even try to meet the requirements of the assignment. Care must be taken to evaluate essays based on their thoughtfulness and eloquence rather than with agreement with any particular opinion as to the subject.

HUMANISTIC ASPECTS OF DISSECTION: AN ANNOTATED BIBLIOGRAPHY

1. Sandra L. Bertman and Sandy C. Marks, Jr.,
“The Dissection Experience as a Laboratory for Self-Discovery About Death and Dying.” *Clinical Anatomy 2*: 103-113 (1989).

The authors assert that dissection can be a paradigm for patient care. The donation of the body is symbolic of the trust between physician and patient; the dissection itself represents the combination of knowledge and skill in the context of a planned intrusion into somebody's body; the valuable development of “emotional armor” can be developed in this context, while opportunities for the development of sensitivity are needed as well. The authors have developed a course in which open discussion of death and dissection is intended to overcome intellectualization and rationalization in first-year medical students; history, art, literature, and guided discussion are used at key points throughout the semester. A large majority of students found this humanities focus helpful.

2. Albert Howard Carter,
First Cut: A Season in the Human Anatomy Lab (New York: Picador, 1997).

The author, a literature professor, describes his season as an observer in the anatomy lab. The story is told through dialogues with the students and course directors and through the author's private thoughts on the process. Conceived and written for the general public, the book reads like a novel rather than a study and is an excellent selection for the student or teacher interested in an outsider's perspective on dissection.

3. R. Charlton, S. M. Dovey, D. G. Jones, and A. Blunt,
“The Effects of Cadaver Dissection on the Social Attitudes of Medical Undergraduates,” *Medical Education 28* (1994): 290-295.

Medical students were surveyed prior to their anatomy course and then again after six weeks and once again after three months. Questions were asked about student attitudes about injury, death, and human remains. The study found no difference between ethnic groups or those who had exposure to death before their dissection experience, but did find that men's and women's reactions differed significantly. Changes in responses from all groups led the authors to conclude that students develop coping mechanisms that allow for detachment and self-protection during the experience.

4. J. L. Coulehan, et al.,
“The First Patient: Reflections and Stories About the Anatomy Cadaver,”
Teaching and Learning in Medicine 7(1) (1995): 61-66.

First-year students at SUNY Stony Brook School of Medicine are required to write an essay that will be anonymously reviewed by their peers as well as their professors. Students are free to choose from a variety of styles: narratives of their experiences with the cadaver, fictional stories about the life of their cadaver, or scripted dramas or poems.

5. Kathleen Marie Dixon, “Death and Remembrance: Addressing the Costs of Learning Anatomy through the Memorialization of Donors” *Journal of Clinical Ethics* (Winter 1999): 300-308.

Dixon focuses on how students in Gross Anatomy personalize and identify with the cadavers they dissect. This can affect their moral and professional development in positive ways if it is acknowledged by their teachers and mentors. Designing memorial services for the cadavers and their families allows students to further integrate such experiences. In the services Dixon participated in, the relatives of the deceased were present and shared photographs and other information about the dead person with the students. This allowed the students to be more aware of the sacrifice made by the donor and their own gratitude and commitment to medicine.

6. George S. M. Dyer and Mary E. Thorndike,
“Quidne Mortui Vivos Docent? The Evolving Purpose of Human Dissection
in Medical Education,” *Academic Medicine* 75 (2000): 969-979.

The authors (third-year medical students) consider the evolution of the practice of dissection over the past 500 years. Key variables considered are the motivating philosophies of medicine and science; how well clinical medicine and basic science have been integrated by anatomy; and how explicitly thoughts and feelings about death and dying have been addressed in the context of anatomy. The authors show that dissection is currently enjoying a revival as a vehicle for teaching humanistic values in medical school.

7. E. J. Evans, et al.,
“The Dissection Room: Reactions of First Year Medical Students,”
Clinical Anatomy 5 (1992): 311-320.

Reactions of first-year students at the University of Wales College of Cardiff Medical School were examined using standard psychological tests to determine stress and arousal, general mental and physical health, sources of stress, and reactions to dissections. The authors report, “serious psychological distress from human dissection is rare, in contrast to [other] reports.” This study argues that dissection experiences are only minor contributors to students’ overall levels of stress.

8. Joel Feinberg,
“The Mistreatment of Dead Bodies,” *Hastings Center Report*
(February 1985): 31-37.

Feinberg explores the profound respect with which most human societies view the dead. He contrasts this veneration and “holding sacred” with the “moral traps” of sentimentality and squeamishness, which threaten to inhibit more widespread public acceptance of the lifesaving medical research, education, criminal detection, and treatments (including organ transplantation) made possible by using dead bodies. Feinberg argues that the conflict can become that “between life on one side and symbolism and sentiment on the other.” Medical knowledge, the relief of suffering, and lives saved are proper consequences of true respect for the dead. He calls for an education and discipline of sentiment allowing us as a society to make dignified use of the dead.

9. P. Finkelstein and L. Mathers,
“Post-Traumatic Stress Among Medical Students in the Anatomy Dissection
Laboratory,” *Clinical Anatomy* 3 (1990): 219-26.

Student reactions to dissection at Stanford University Medical School were assessed by interviews, questionnaires, recordings of laboratory conversations, and analysis of dreams.

About five percent reported marked disturbance including nightmares, intrusive visual images, insomnia, depression, and learning impairments. These reactions strongly resemble symptoms of post-traumatic stress syndrome.

10. Norman Gustavson,

“The Effect of Human Dissection on First Year Students and Implications for the Doctor-Patient Relationship,” *Journal of Medical Education* 63 (1998): 62-64.

The author conducted informal interviews with medical students during his experience as a post-doctoral anthropologist in the anatomy lab and also solicited voluntary essays about the experience from students. He found consistency in themes both in the interviews and the essays. Students expressed concerns about becoming “desensitized” to the human body; they were distressed by emotional responses to the dissection process; but were often prone to reflect upon the humanistic purposes of medicine (the relief of suffering) as well.

11. Frederic W. Hafferty,

Into the Valley: Death and the Socialization of Medical Students (New Haven, Conn.: 1991).

The middle chapters of this book capture the feelings and experience of a diverse group of medical school students as they observe dying patients at a hospice-type care center; anticipate and then participate in the gross anatomy lab; and ponder the differences between the conception of the cadaver as biological specimen, as a former human being, and as a symbol of their own future selves. The socialization process is explicated as students find their conceptions of time and their treatment of their own feelings changing with exposure to dissection and the rest of the curriculum. The students demonstrate a wide range of reactions. The medical students are remarkably open and insightful in their comments and questions of the author, who as a medical sociologist shadowed the class in these activities.

12. D. J. Horne, et al.,

“Reactions of First-Year Medical Students to Their Initial Encounter with a Cadaver,” *Academic Medicine* 65 (1990): 645-646.

Students at the University of Melbourne, Australia, were surveyed before their dissection experience began and again after completing the course. They did not find dissection traumatic and their anticipated stress was much greater than their actual stress during the laboratory experience. Contrary to the authors’ expectations, students who had prior exposure to a dead human body appeared overly sensitized to the emotional aspects of the dissection process when compared with peers who had no exposure.

13. D. Gareth Jones,

Speaking for the Dead: Cadavers in Biology and Medicine (Aldershot, England: Dartmouth Publishing Co. Ltd.: 2000).

D. Gareth Jones conducts a fascinating exploration of what he calls “the many links between the living and the dead.” Meticulously researched, this book covers enormous ground, from the punitive public dissections of executed criminals in the past century to

the modern anatomy laboratory today, from considerations of “brain death” to “brain birth,” and from the uses and misuses of bones thousands of years old to the newest techniques of organ and tissue transplantation. Jones maintains that the ethical issues involved in how we learn from the dead go far beyond the dissections of bequeathed cadavers in the Gross Anatomy classes of first-year medical school students. Rather, since the actual study of human anatomy is connected to pathology on the one hand and cellular and sub cellular biology on the other, the uses of all “human material” – tissues for slides, stem cells, skeletons, even DNA – must be justified. It is always “some body’s” material, however depersonalized it may appear to us.

14. Leon Kass,

“Thinking About the Body,” *Hastings Center Report* (February 1985): 20-30.

Kass develops a deep meditation about “corporealism”—the belief that humans are only their bodies—and speculations about an incorporeal soul or mind. We both *are* bodies and *have* bodies, and when we die we *become* bodies. How to treat dead bodies is a question that illuminates our self-conceptions and self-understandings. Kass explores the areas of our erect posture and some of what it means; the potentials for communication and awareness centered in our faces; and our sexual capacity. Yet we are also isolated, incomplete, and vulnerable, and our bodies conceal the soul as much as reveal it. We are divided selves, aware of being both subject and object. The “mystery of mysteries” is the embodied mind or the thoughtful body.

15. Meryl Levin,

Anatomy of Anatomy in Images and Words (New York: Third Rail Press, 2000).

This book is the result of a project involving photographs of and student journal entries about the Anatomy laboratory at the Weill Medical College of Cornell University in New York City. The chapters and Levin’s photographs follow the chronology of dissection: arm, thorax, abdomen, pelvis, and leg. Student journal entries are thoughtful, insightful, and provocative. The photographs are beautiful and sensitive. Abraham Verghese writes a foreword.

16. Marks, S. C., and Bertman, S. L.,

“Experiences with Learning About Death and Dying in the Undergraduate Anatomy Curriculum,” *Journal of Medical Education* 55 (1980): 48-52.

The authors describe the evolution of a curriculum on death and dying that integrated small-group experiences into the first-year dissection experience at their school. Both medical school and humanities faculty help to facilitate group discussions that are initiated by packet of articles and paintings selected for brevity, evocative potential, and implicit humanistic bias. Other modalities are used throughout the course, including questionnaires, a film of a dying person, literature and art, discussion of the motives of willed-body donors, and overview of care for the cadavers during the dissection course.

17. J. O. Nnodim,

“Preclinical Student Reactions to Dissection, Death, and Dying,” *Clinical Anatomy* 9 (1996): 175-182.

Medical students at the University of Benin (Nigeria) were surveyed before beginning dissections and after over 100 hours of laboratory work. A significant number of students showed an increase in symptoms suggestive of depression. Cultural differences between Nigerian students and others were considered but did not seem to affect student attitudes significantly.

18. J. C. Penny,

“Reactions of Medical Students to Dissection,” *Journal of Medical Education* 60 (1985): 58-60.

Medical students at Dalhousie University (Nova Scotia, Canada) responded to questionnaires distributed at 14 months and at the end of the dissection experience, which for them extends into the second year. The strongest reactions were in anticipation of dissection. However, anxiety did not diminish as greatly as prior studies had indicated. The author posits that students would appreciate more open discussion of their experiences based upon the “voluminous amount of unsolicited anecdotal information” they offered in responding to open-ended questions.

19. C. B. Rodning,

“O Death, Where is Thy Sting? Historical Perspectives on the Relationship of Human Postmortem Anatomical Dissection to Medical Education and Care,” *Clinical Anatomy* 2 (1989): 277-92.

A short history of anatomical dissection constructed to reinforce the author’s belief that donation of one’s body to medical science (for dissection, organ/tissue donation, or research) is a societal obligation. The author supplements the historical account with references to literature and poetry. A quote from one reference, “Death rejoices to come to the aid of life,” summarizes the author’s position.

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