Science fiction and mystery are among the most popular forms of modern literature. Some of the greatest stories in each genre have centered on archaeological themes, have archaeological endeavors for a backdrop, or have archaeologists as protagonists or, occasionally, the villains. Get archaeologists to talk about what they prefer for light reading, and more often than not they will mention a love for science fiction or mystery novels. Some archaeologists, in fact, own as many books in these genres as in their personal professional libraries. Collaboration between archaeologists and authors is also common. Every writer appreciates fans, especially those able to provide technical expertise and constructive commentary. The acknowledgments of a good many novels in these genres thus include the names of one or more archaeologists or anthropologists. And, as we shall see, archaeologists and anthropologists themselves have written some pretty impressive science fiction and mystery stories.

I read Mists of Dawn (1952), by anthropologist Chad Oliver, when I was 10 or 11 years old. I vividly remember its impact and how it helped to kindle my own interest in archaeology. In my conversations with other archaeologists, several have admitted being similarly influenced as children by this volume or by similar kinds of stories in which archaeology played a major role. In Oliver's story, a teenager is accidentally sent back tens of thousands of years into the past in a time machine, to an era when Cro-Magnon and Neanderthal populations were present and competing in western Europe. Oliver, while revered by science fiction fans, was a professor of anthropology at the University of Texas, and his stories provide rich detail on the life of the peoples or beings his protagonists encounter. Mists of Dawn vividly portrays life in the distant past and shows that even our distant ancestors were very much like us, real people who, while now largely lost in the mists of time, still lived and loved. In one highly moving episode his protagonist watches one of the Cro-Magnon shamans at work: "In this deep recess of the limestone caverns, far beneath the
surface of the earth, the pitch-black gloom was illuminated by two stone lamps set in the rock walls. The lamps were filled with animal fat and their wicks were soaked twists of moss. In the soft light of the stone lamps, the pale Tloran worked alone, painting with crude clays and berry dyes and charred sticks upon the side of the cave...he worked very slowly.... He stopped often to survey his work with a critical eye" (Oliver 1952:176). It is not surprising that people who read stories filled with such passages sometimes grow up to become archaeologists.

Our profession gains rich rewards from this kind of exposure. The general public probably gets a better idea about what archaeology is like as a profession from popular books and movies than from all the site reports and technical papers professionals publish combined. Tony Hillerman's A Thief of Time, for example, probably let more people know that site looting is a major problem—indeed, a serious crime when it occurs on federal land—than all the warning signs and technical literature on the matter produced by federal agencies charged with cultural resource protection. Indeed, given that popular books sell hundreds of thousands of copies, while most archaeology books are lucky to sell even a few hundred copies, and most technical archaeological papers are lucky if they are read by more than a few dozen of our colleagues, it is in our best interest as a profession to see that the messages in popular books get out.

ARCHAEOLOGY AND MYSTERIES

It is not surprising that archaeologists often like to read mysteries or that mystery writers often focus on our work. Archaeology is like detective or police work. Detectives and archaeologists both employ often very limited kinds and quantities of evidence to reconstruct events in the past. Both sets of professionals make remarkable findings about the past and, when successful, enjoy the respect and admiration of the public. Both have devoted tremendous effort to maximizing the interpretive potential of their data. Indeed, both professions are supported by a wide array of highly trained specialists expert in identifying unusual kinds of evidence, such as hair, fiber, bones, soils, and plant remains. In both professions, being a trained and careful observer is critical so that clues or kinds of data are not overlooked.

Careful provenience control and proper curation procedures are essential to both fields of endeavor; the evidence each profession collects must be carefully noted, recorded, and maintained. Just as a detective notes the position of remains found at a crime scene and carefully draws, photographs, and collects appropriate categories of evidence, and then carefully controls access to these materials so that they cannot subsequently be disturbed or tampered with, and hence can be used as evidence in a court of law, so too do archaeologists care-
fully gather, record, and maintain a wide range of artifacts and other kinds of information as they excavate and conduct their subsequent analyses. The careful documentation of a crime scene is, in fact, almost identical to the procedures used to document an archaeological excavation. The line between the professions is thus quite thin; indeed, archaeologists and anthropologists trained in forensics are often called upon to assist law enforcement personnel.

Both archaeology and mystery writings have broad public appeal, in part because people like knowing how problems are solved, how events of the past can be reconstructed from (often miniscule) evidence found in the present. Well-written mystery stories and technical archaeological reports almost invariably have broad public appeal. Everyone likes a good mystery, but an essential element of a good mystery is that readers know that answers to at least some of their questions will ultimately be provided. The same is true in archaeology, where success is measured not just by what we have found but what we have learned, what the remains tell us about life in the past.

It is thus not surprising that a number of mystery novels have had archaeological projects as backdrops to their story. Given public interest in both fields of endeavor, a well-written book that encompasses both professions is almost certain to do well. Sometimes archaeologists themselves use popular writing as a means of getting their ideas out to a wider public when it might be more difficult to do so through traditional scholarly publications. Gordon R. Willey, for example, one of the most distinguished American archaeologists of the twentieth century, wrote a fine mystery novel, Selena (1993). The story contains many observations about what life in archaeology can be like that appear to reflect Willey's own deeply held beliefs. Fiction can thus provide a window into the ideas and insights people have about our profession, providing a perspective we might not otherwise have.

One of the greatest mystery writers of all time, Agatha Christie, was married to an archaeologist, Sir Max Mallowan, whom she accompanied for many years on his expeditions to various parts of the Middle East. Several of Christie's novels, not unexpectedly, have archaeological backdrops, such as Death on the Nile (1937) and Murder in Mesopotamia (1936). Above and beyond using archaeological themes in her novels, however, Christie did archaeology and archaeologists a major service in her autobiographical Come, Tell Me How You Live (1946), in which she describes what it was like to be married to an archaeologist. Filled with honest and amusing anecdotes about life in the field, this book enhances the romance of archaeology while in no way hiding the heat, dirt, insects, logistical problems, and highly varied people encountered in its practice. Christie's description of archaeologists is right on the mark, as the following example shows: "One thing can safely be said about an archaeological packing. It consists mainly of books. What books to take, what books can
be taken, what books there are room for, what books can (with agony!) be left behind. I am convinced that all archaeologists pack in the following manner: They decide on the maximum number of suitcases that a long suffering Wagon Lit Company will permit them to take. They then, reluctantly, take out a few books, and fill in the space thus obtained with shirts, pyjamas, socks, etc." (1946:19). Come, Tell Me How You Live should be required reading for anybody who wants to be an archaeologist, and especially for someone planning to marry one. Christie concludes her account by saying about her life with an archaeologist that "it was a very happy way to live" (1946:191).

Whole series of mysteries, of course, exist where the protagonist is an archaeologist or forensic anthropologist. For example, the Amelia Peabody mysteries by Elizabeth Peters (herself a trained Egyptologist) are set in Egypt at the turn of the twentieth century and document the exploits of a dashing female archaeologist married to a character who bears a remarkable resemblance to Sir Flinders Petrie, one of the greatest Egyptologists of the era. Closer to home, Beverly Connor, who has an M.A. in anthropology, has written five murder mysteries in which much of the action is set on archaeological projects conducted in and near Georgia. As someone who has spent much of his career digging in precisely this area, I found Connor's settings and characters both familiar and well portrayed, and it is obvious that she knows the local archaeological scene quite well. I like to tell people that Connor's descriptions of archaeological projects are uncannily like the real thing, although fortunately (at least on the projects I've been involved with so far) no one gets murdered.

Other popular mystery series in which the protagonist is a forensic anthropologist, usually with a strong background in archaeology, include Sharon McCrumb's Elizabeth MacPherson stories, Patricia Cornwell's Kay Scarpetta mysteries, and Aaron Elkins's Gideon Oliver series. That so many of the protagonists in these series are women is not merely authorial license, for in recent years increasing numbers of women have been receiving degrees in anthropological archaeology. Lara Croft (Tomb Raider) is the real Indiana Jones of the twenty-first century, although again, thank goodness, real-life archaeology is fairly tame in comparison to what is portrayed in the movies.

Of course, while in most mystery series archaeologists are lionized, or at least treated with respect, professionals do not always receive sympathetic treatment. When murders are set on archaeological projects, oftentimes one archaeologist is solving a murder perpetrated by a fellow professional. Many of us are glad that art rarely imitates life in this regard.

Usually the worst that happens is that readers are made aware of the fact that archaeologists are people too, and not the larger-than-life figures portrayed in the movies or novels. Thus, academic rivalries and politics, competition for grants, and a desire to bask in the glory of a big discovery (usually to
hog all the glory for oneself and keep others from sharing the credit) are the typical motives for tensions existing on projects (and hence creating suspects). Fortunately, while professional and academic politics are often as depicted, archaeologists are a pretty congenial bunch.

The tensions that sometimes exist between archaeologists and the descendants of the people they study is also occasionally explored in mystery novels. In Tony Hillerman's _A Thief of Time_ (1988), for example, an Anglo archaeologist is sent his grandparent's bones, a reversal of the treatment many Native Americans have experienced. While this is a minor aspect of the story, the scene's shock value helps convey the message that all people's beliefs need to be treated with respect.

**ARCHAEOLOGY AND SCIENCE FICTION**

Science fiction also explores many of the same subjects that archaeology does, since it commonly deals with vast sweeps of space and time, envisions different civilizations, and has the aim of transporting the reader to worlds or times unknown or only dimly imagined. In _science_ fiction, one can see where archaeology will likely be in centuries to come, and in some ways the genre is helping redefine our field in the present.

Perhaps the most startling prediction, advanced in dozens of science fiction stories and novels, is that archaeology will likely have a bright future should humanity ultimately go out to the stars and find evidence of other civilizations. The reason is simple: the depths of space and time are so vast, and the life of technological civilizations likely so brief in comparison, that most of the races whose civilizations we encounter will be long gone, and any remains they have left behind will be best studied by archaeologists. Humanity's own 5,000 years of recorded history is insignificant when compared to the 5 billion years that Earth and our own solar system have existed. In a universe upwards of 12 billion years old and containing millions of galaxies and trillions of star systems, innumerable civilizations are likely to have already come and gone. To some science fiction authors the universe is filled, not with many contemporary living races, but with the ruins of a vast array of extinct civilizations, each waiting for the patient archaeologist to discover and collect their secrets.

Many science fiction stories are accounts of archaeological fieldwork set on other worlds and exploring vanished civilizations. They often deal with the same challenges modern archaeologists have to face, such as how old the remains are, what the beings who created them were like, and, often most importantly, why these peoples are now gone or extinct. In H. Beam Piper's classic short story "Omnilingual" (1957), a research team trying to decipher the language of an extinct alien race finds the equivalent of the Rosetta stone—
that is, a record providing a common frame of reference easily understood in any language—in the periodic table of the elements. Any civilization beyond a certain level of technological sophistication is likely to have discovered these systematic relationships between the elements and to have used readily identifiable words or charts to describe them. Over the course of the story, the reader is given a wealth of interesting detail on how archaeologists and linguists translate ancient languages. The educational value of well-written and technically sound stories should thus not be underestimated. Some archaeologists, such as Michael Gear and Kathleen O'Neal-Gear, have done a great deal to popularize archaeology and the lives of the people whom archaeology studies.

Some of the finest science fiction stories written in recent years have future generations of archaeologists as protagonists, examining in great detail how they go about their work. A few such novels I have found particularly memorable include Jack McDevitt's *A Talent for War* (1989), *The Engines of God* (1994), and *DeepSix* (2001), all of which examine how archaeologists interact with each other and how archaeological discoveries will likely shape humanity's perception of itself as much as of other races of beings. Likewise, Kim Stanley Robinson's *Iceburn* (1984) has a twenty-sixth-century archaeologist examining the site of one of the last struggles of the twenty-third-century Martian War for Independence, the colony of New Houston, and in the process examines how archaeology can overturn popular wisdom (or deliberately maintained lies) about what happened in the past. In another great story, David Brin's *Startide Rising* (1983), a spaceship crewed by a dolphin, a chimp, and a human finds the remains of a multibillion-year-old fleet of starships and in the process sets the civilized races of the local group of galaxies into turmoil, showing how archaeology's findings may have an impact far beyond that expected at the time of discovery.

Some of the greatest novels in the field of science fiction have explored why civilizations rise and fall and whether and how the actions of individual human beings can shape what transpires. The role of historical process versus contingency (or free will versus determinism) in understanding what causes cultures to change is central to modern history and anthropological archaeology alike (Carneiro 2000). That the themes that have entranced Toynbee and A. L. Kroeber have caught the eye of science fiction miters is thus not surprising. These are the big questions of our existence that fascinate all thoughtful people.

Isaac Asimov's Foundation trilogy (*Foundation* [1951], *Foundation and Empire* [1952], and *Second Foundation* [1953]) examined whether the course of future history can be predicted and the outcome changed through deliberate action. Set some 50,000 years in the future, when humanity has spread across
the galaxy and hundreds of thousands of star systems are united in a great and benevolent galactic empire, the novel deals with the actions of a group of scientists who see the empire's fall coming. It describes how they strive to lessen its impact and shorten the dark age that will follow from tens of thousands of years to a thousand years or less. Plotting the broad course of history for centuries to come, a "Foundation" is placed at the edge of the galaxy, far removed from the turmoil at the collapsing center of the empire. From this Foundation, advanced knowledge is kept alive and ultimately disseminated back into a galaxy that is rapidly losing knowledge of atomic power and interstellar flight. The great plan goes askew, however, when a single individual, unforeseen and operating against the broad tides of historical determinism, emerges and successfully challenges the goals and agents of the Foundation.

Asimov's epic draws on lessons learned from the fall of the eastern and western Roman empires, the role of the Irish monasteries in the rekindling of civilization in the West, and a host of other historical sources. Although Asimov is known as an educator and prolific technical writer, many of his most influential ideas, such as his three laws of robotics, were conveyed to large audiences through his science fiction stories and novels. Archaeology was one of many fields whose contributions Asimov appreciated and used. In a minor scene from Foundation, how archaeology is conducted at the time is used to reinforce the idea that civilization's fall is coming. Two of the characters engage in a discussion about whether archaeology could be useful in answering the question of where in the galaxy humanity emerged (all memory of Earth having faded in the intervening tens of millennia since humanity went out to the stars). The decadent scholar from the heart of the collapsing empire is appalled when one of the Foundation scientists suggests he conduct actual archaeological fieldwork instead of rereading the work of others. The best modern archaeologists, of course, are very much aware that their conclusions and interpretations must have a strong empirical foundation and that archaeology is, after all, ultimately based on findings made in the field. The story conveys the obvious lesson that the credibility of an archaeologist's interpretations is closely linked to the extent to which they are based on real-world data. In this case, the fiction writer has an important message for scholars as well as his broader audience.

Asimov's first published book, Pebble in the Sky (1950), dealt with a similar question, the role of archaeology in helping humanity understand its origins. In this novel, a mid-twentieth-century man from Chicago is accidentally cast tens of thousands of years into the future, to an Earth when the first (or second?) galactic empire is at its height, but no one knows where humanity's origins lie within the galaxy. The English writing the protagonist employs, however, is eventually recognized by an archaeologist as similar to the oldest
known inscriptions in the galaxy, from settlements in several star systems within a few light years of Sol. Archaeology plays a small but important role in the story, helping humanity discover its origins.

Another science fiction novel exploring similar themes is Vernor Vinge's *A Deepness in the Sky* (1999). In this story, the protagonist, Pham Nuwen, begins his career as a programmer-archaeologist, exploring and learning the secrets accumulated over the thousands of years computers have been in operation, learning the trapdoors, backdoors, and other secrets hidden amid the layers of code.

We've had computers and programs since the beginning of civilization, even before spaceflight. ... There were programs here written five thousand years ago, before Humankind ever left earth. ... And via a million million threads of circuitous inheritance, many of the oldest programs still ran ... behind all the top-level interfaces was layer under layer of support. ... When systems depended on underlying systems, and those depended on things still older ... it became impossible to know all the systems could do. Deep in the interior of fleet automation there could be—there must be—a maze of trapdoors. Most of their authors were thousands of years dead ... [but if found] the owners of those trapdoors would be like a king forever after, throughout the entire universe of use. (Vinge 1999:224–227)

Nuwen uses what he learns to establish an interstellar trading empire, while wrestling with the ultimate problem of how to keep it going over vast distances and, given sublight relativistic spaceflight, over vast stretches of time. Like Asimov in the Foundation trilogy, Vinge is exploring how and why civilizations rise and fall and examining the role of the great individual in shaping history, using science fiction as a platform for expressing his thoughts.

In an earlier novel, *A Fire upon the Deep* (1992), set thousands of years after the time of Pham Nuwen’s empire, programmer-archaeologists exploring an aeons-old data vault unleash havoc on the inhabited galaxy when they discover and release a sentient program of unprecedented destructive capability: "The treasure was far underground, beneath a network of passages, in a single room filled with black. Information at the quantum density, undamaged. Maybe five billion years had passed since the archive was lost to the nets" (Vinge 1992:1).

While archaeologists unleash the problem, the efforts of vast numbers of peoples are needed to resolve it. The message is that archaeologists must also be aware of the possible consequences of their actions. Both of Vinge’s novels won the Hugo Award, science fiction's highest honor, for best novel of the year they were published.
Many of the stories not only accurately depict archaeological research activity but also do so in a way that inspires archaeologists themselves. One of the best descriptions I have ever read of the optimism that pervades the start of a dig comes from Kim Stanley Robinson's *Icehenge*: "It was that moment in a dig, before the work has begun, when the site lies undisturbed in its shadows and—all things seem possible, when one can imagine the ruins to be... the debris of countless lives that can be deciphered and understood, recouped from the dead past to be known and treasured and made a part of us forever. Why, down in those ruins we might find almost anything" (1983:71).

As I write this, I am involved in the start of a large excavation at the Shiloh site in western Tennessee, where we are exploring an Indian mound that is eroding into the Tennessee River. This mound will be partially or totally lost in the next few years. We do not know what we will find inside the mound as we dig, and this makes every day both challenging and exciting. We have this one chance to learn what went on at this site, and we have to make the most and best of it. Archaeology is slow, patient work, especially on complex sites, and we do not know in advance what we will find. Instead, the buried information is revealed to us a piece at a time, over many days, as more and more of the site is exposed. We have to be patient, believing that over the days and weeks of the project the answers to our research questions will emerge.

There are some things we will never know, and that is part of archaeology as well—doing the best we can and trying to tease every bit of information out of the clues left to us, but accepting that there will always be some things that elude us. As Robinson had two archaeologists put it in the conclusion to *Icehenge*:

> What do you think really happened here?...
> I think... that more has occurred in this place than we can understand.
> And you're content with that?...
> Yes. (1983:261)

As archaeologists, we are faced with a dilemma. We want to know about the past, and we devote all our efforts to finding new ways of interpreting the clues left behind, but we must live with the fact that some things may be forever beyond us, that not all the pieces to the puzzle may be present. Nevertheless, what we are able to accomplish can be very satisfying, enough to make the profession personally fulfilling. Most writers do capture and document the passion most archaeologists have for what they do. Indeed, it is a hallmark of the best archaeologists that they put in long hours, all the while feeling that they have never truly had to work a day in their lives.
CONCLUSIONS

Archaeology helps us to understand what it has meant to be human and how other peoples have lived. As such, it explores the same themes that literature, art, and poetry have examined through the ages. Archaeology's subject matter is the stories of all the people who have ever lived, individually and collectively. We are their voices, giving past lives new existence, and in the process we are shaping our own story. We need to think about putting a little more art into our archaeology, that is, making our writing more interesting and more accessible to the public.
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