SEPARATE BOX

Dr. James Schoenwetter recently retired from the professorship he has held for 33 years at the Department of Anthropology at Arizona State University. While his research reputation stems from expertise in the study of pollen recovered from the deposits of archaeological sites, he has taught generations of students something he believes will long outlast what he has told them about the procedures of field and laboratory archaeology or information about what has been learned of prehistory. He calls it "the habits of mind that are the tools for undertaking creative, stimulating and productive professional careers".

As part of his or her professional education, the modern archaeologist receives thorough training in the philosophy, theory and methodology of scientific thought and effort. While archaeology, like history, may be as much a humanistic as a scientific discipline, use of a scientific frame of reference creates the most organized, most thorough and most evaluable process we presently have available for achieving archaeological work of exceptional quality. In this example of the benefits of such training, a student followed the five main steps of a scientific research design: (1) recognition of a challenging problem, posed as a question; (2) identification of a plausible answer, phrased as a hypothesis; (3) creation and execution of a strategy to discover new information that would test the hypothesis; (4) integration of the new and older information to solve the problem; and (5) exploration of the implications of the solution.



RETHINKING BETHSAIDA

James Schoenwetter, Professor Emeritus Arizona State University April 2000

The dawning sun rose behind them as the farmer, his steward and the ox drawing the cart walked west. They would soon arrive at the recently renamed town. After their stop at the temple they would proceed to the broker's warehouse to sell the rest of the load for cash, pick up a few things at the market, and be home by afternoon.

"Another good year" the farmer mused. "Philip certainly knows what he's about. This corner of the Roman Empire was a backwater when his father Herod settled it from the cities of the Decapolis; today it's both rich and peaceful. I hear that his brother Antipas, who rules on the western shore, can't really seem to get the hang of good government. I bet there'll be trouble there again before long."

On that day in 33 CE the Sea of Galilee lay at the western foot of the tel on which the town stood, and their road climbed its southern slope. At the entry to the temple dedicated to Julia an acolyte noted their donation on his wax tablet and directed them to the storage area at the rear. While the farmer discussed the latest market prices with the temple priest, temple slaves unloaded and stored his offering under the watchful eyes of his and the temple stewards.

It would be almost 2000 years before an archaeologist could identify all the pieces of information that evidence this reconstruction, and a crucial piece of the puzzle was almost ignored.

The town Philip renamed Julias, on the eastern shore of the Sea of Galilee, is

today to be found two kilometers inland of re-named Lake Kinneret, in northeastern Israel below the Golan Heights. Excavation director Rami Arav was convinced the site of Et Tel was biblical Bethsaida when he began work there in 1987. But because the archaeological evidence was equivocal, geological research has been required to provide convincing physical evidence of a radical shift in shoreline since fisherman lived there and Jesus made it part of his ministry. Such studies were initiated in 1992, following formation of the 17 college and university consortium of the Bethsaida Expeditionary Project. Since 1994, Arav and Project director/historian Richard Freund have focused on determining the long sequence of occupations at the site and on excavating constructions dating to its Iron Age and Roman Period use. The impressive walls and gate dating to the ninth century BC and the well-preserved Hellenistic Period "House of the Fisherman" have been of particular interest.

BOX

Though the Israeli government recognizes Et Tel as the site of biblical Bethsaida, an argument which favors the site of el-Araj retains adherents. See Biblical Archaeology Review November/December 1993, July/August 1999 and January/February 2000.

BOX

By 1995 archaeologists had uncovered and explored the foundation and damaged rooms of a building with the architectural characteristics of a Roman temple, adjacent to what was originally interpreted as a Hellenistic Period granary. Patrick Geyer, a secondary school science teacher recently moved to Arizona from San Diego, was visiting in Israel that season. Intrigued by what he saw at Bethsaida, he enrolled at

Arizona State University in Tempe to take courses in archaeology and to delve into the Roman Period history of Bethsaida. Though much information was available on the political history of Roman Galilee, the territory inherited by Philip's brother on their father's death, almost nothing was known about Philip's tetrarchy during the same period. The principle sources of information about Bethsaida during the Roman Period were to be found in the New Testament and Josephus' *Antiquities*.

Why, Geyer wondered, was Philip's rule so peaceful that its politics deserved no mention by contemporary chroniclers? Was the reason linked to the evidence that Philip had renamed his capital Caesarea Paneas, or to Josephus' statement that Phillip had advanced the village of Bethsaida to the status of a polis when he renamed it Julias "the same name with Caesar's daughter"? Did the reason have something to do with Philip's improvement of an ancient road northward from Bethsaida-Julias to the main road that connected Damascus to ports on the Lebanon coast? Was there some connection with the coins Philip had minted early in his reign? To what extent was Philip's background or his personality involved? How did the pieces of history and the archaeological record fit together to tell Philip's story?

Geyer guessed that the archaeological evidence to answer his question lay in the ruins of the temple, because when it was in use the functions of economic, religious and political institutions were far more integrated than occurs today. Though the state, the church and the marketplace were physically separated parts of the system, none operated independently.

In keeping with a tradition that dated back to the time of Alexander in these Hellenized parts of the empire, the powers of gods and goddesses were associated with

the powers of the highest rank of nobility, and political allegiance was expressed through "worship" of such individuals. Herod the Great, for example, established a temple dedicated to his benefactor Augustus at Panais. Arav's argument that the temple of Roman period Bethsaida was dedicated to Rome's Imperial Cult is supported by such archaeological evidence as fragments of figurines and an incense shovel unearthed in nearby trash pits, and by the coins minted with Julias' portrait on one side and the temple facade on the other. The Julia so honored was not Augustus' daughter, however, but the mother of the then-current emperor, Tiberius. Though originally named Livia, her husband Augustus' will had her declared a Julian.

Geyer thought it likely that most of the people Herod had settled in what was now Philip's tetrachy paid homage to the Imperial Cult and identified Julias as a manifestation of Ceres, goddess of harvests, when the temple was built in 30 C.E. It was to such a temple that they would have brought offerings of their harvests. The Jews who formed the majority of Bethsaida's residents would not have done so, but few of them were landholders. Putting two and two together, Geyer hypothesized that Philip maintained good order in his realm by supporting the local presence of a Roman legion. Grain collected at temples of the cult of Rome could have been the attraction, for otherwise the legion's daily bread would have to have been guaranteed by grain shipped from North Africa.

As he looked further into the matter, Geyer's hypothesis began to gain historical support. Though there was no record that a legion had been based in his tetrarchy, there was abundant evidence that the province of Palestine suffered periods of grain shortage throughout its history. In Philip's lifetime, his father Herod the Great had

averted a famine by purchasing grain from Egypt (Pastor 1997:115-116) just as the patriarch Jacob had done in Joseph's time. But the Plains of Bashan east of Bethsaida were ideal for grain production (Safrei 1994:12; Freyne 1980:5). By the time Philip inherited the tetrarchy, Herod's policy of resettling foreigners on his lands east of the Jordan may have developed their agricultural potential. Josephus noted that Herod had encouraged settlement by offering new residents immunity from taxation. Though Philip imposed taxes on his subjects for a short time at the beginning of his reign, he soon found an alternative source of income in minting coins (Schurer 1979:170, Arav 1989:136). To be valued, his coins had to represent a source of wealth, such as exportable supplies of grain. Further, it turned out that Varus, who was legate of Syria and Philip's Roman superior at the beginning of his reign, had previously been proconsul of the province of Africa. Since that province was the source of Rome's grain supply, Varus would have known that part of the economic support for the functions of government in North African tetrarchs was grain collected at temples of the cult of Rome.

But how, without any clear documentary evidence, was Geyer to demonstrate the likelihood of his hypothesis? The demonstration had to be founded on the archaeological record --possibly from Bethsaida-- but what physical remains surviving nearly two millennia would be appropriate? Julias' Temple and the adjacent storage structure had already been excavated, and had produced few artifacts other than potsherds. Only a small piece of marble, and a few fragments of ritual gear that had been discarded in refuse pits when they broke during use, remained to be uncovered by the archaeologist's spade and trowel.

But Geyer had learned that not all of the physical remains that comprise the archaeological record are artifacts. Some are not even visible to the naked eye. When he returned to Bethsaida as a volunteer excavator for the 1996 season he was granted permission to undertake systematic collections of samples that he reasoned might provide evidence that would help him test his hypothesis. Such samples had been overlooked previously and are rarely collected by archaeologists at sites of classical antiquity: samples of the dirt that is normally discarded after the artifacts it contains have been recovered.

His sampling strategy had been based on realization that microscopic pollen grains incorporated in the sediments of archaeological sites can often provide evidence of the ways human custom interacts with the plant world. Archaeological palynologists have used pollen records, for example, to explore the antiquity of maize cultivation in the Americas and to indicate which of the rooms in a Southwestern pueblo were used for storage, for ceremonies, or for domestic activities. In 1996, Geyer collected plaster samples from the floors of the storage rooms and from the main room of the temple Extracting the pollen the samples contained was an unusually complex process because the pollen was bonded to the silt and clay particles of the samples by some sticky organic substance. He solved that problem the same way a housewife would solve the problem of food stuck to the surface of her frying pan. He soaked the samples in detergent solution for a few days, then used plenty of soap and hot water to break the substance down. As it turned out, the prominent pollen types recovered in samples from the floor of the temple rooms were from plants associated with the rituals and ceremonies performed there: sage pollen from incense, oak pollen from leaves

collected for holly-like decorations at the spring festival, and pollen from the pastures and fallow fields in which sheep and cattle had grazed before being brought to the temple to be sacrificed. The prominent pollen types found in the storage facility were quite distinct, however, and consisted mostly of crop plants: wheat, barley and flax. Wheat and barley, of course, were staples for bread and beer. Flax is the fiber source for linen. Interestingly, there was far more flax pollen than pollen of the grain crops.

Relying on documentary evidence, agricultural historians have dated flax production in the province of Palestine from about 100 years after Bethsaida's destruction, and note that linen manufactured in the Galilee at that time was particularly prized throughout the empire (Safrei 1979; Forbes 1964:32). But they have also recognized that the ports through which linen was first exported lay on the Syrian coast of the Mediterranean rather than the Palestinian coast. What if, Geyer thought, that situation was the result of Philip's conscious planning? Certainly, Philip would have known how popular linen had become now that it was the textile of choice for a rising merchant class and the Pax Romana had eliminated the piracy that had previously plagued the Eastern Mediterranean. Phillip certainly must also have known that processing flax into tow, from which linen thread is spun, required an abundant supply of fresh water. Philip could have encouraged flax production in what is now the Beshan Plain by developing lakeshore towns such as Bethsaida where it could be processed, and developing the road to Mediterranean ports where it could be woven to cloth and exported throughout the empire. He could have supported this plan with funds collected as taxes, initially. Once things got rolling, however, he could cease taxing his subjects, thereby encouraging them further through higher profits, and rely on the value of the

commodity in his lands to support his coinage -- which would facilitate the transactions occurring as flax was successively transformed from plant to tow to thread to cloth.

Testing his original hypothesis had the ultimate effect of both demonstrating it was unlikely and developing the evidence for a reasonable alternative. As he was to propose in his Master's Thesis,

Placed in this pivotal position between Syria and the Decapolis, Philip handled politics well, as evidenced by his peaceful reign. He also handled his economics well, as evidenced by his low taxation. However, the key to all of this was how he utilized religion, in the form of the Imperial Cult. It was the most critical element, for, as explained above, in it politics, economics and religion came together for him.

What's interesting about Geyer's study isn't really his use of an unusual sort of evidence, the microscopic pollen grains still trapped in dirt that archaeologists usually discard. It isn't even his appreciation that pollen studies can be directed at the reconstruction of behavioral events, as well as reconstruction of past vegetation and climatic conditions. I find the most interesting aspect of his work was his commitment to the practice of scientific methodology for resolution of what many would understand as a humanistic question: what was the basis of Philip's political success.

Geyer formulated a hypothesis on the basis of solid historical information, and he created a research design for testing that hypothesis that provided for the possibility of alternative solutions to the problem. When he implemented the test he failed to recover information that supported his hypothesis. The quantities of grain pollen that would suggest sufficient grain to support a legion did not show up in the samples. But he discovered information that supported an alternative interpretation that made even better sense of the historical and archaeological data. Thus his work shows how a

hypothesis does the scientific work archaeological theoreticians have identified for it: it rationalizes a conscious research design developed to recover the sort of information required for solving a specific problem, and leads to the discovery of new information.

For me, one of the professors who advised Geyer through the process of his research, the interesting part of his work was that it proved the value of that theory, even though he may have found such theoretical matters the least interesting aspect of his graduate education. Theory also tells us that formulating and testing hypotheses do another sort of scientific work. When they lead to unexpected bodies of information, they stimulate new ideas about the ways old information might be reinterpreted. We can present such perceptions in the form of alternative historical reconstructions also:

The Gallilean farmer walked homeward briskly that Friday afternoon, leading the donkey that carried the few supplies he'd purchased at the market in town.

"Why", he mused, "doesn't Antipas realize that simply aping the way Philip governs won't work on this side of the water?

"We've got a larger population and smaller farms. We can't produce as much flax as they do in Gaulinitis, because land planted to flax must lie fallow twice as long as land planted to wheat or vegetables, and some land has to be reserved for pasture."

"And it's not appropriate to pay him the tithe on any flax we harvest at our temples. It's not so much a matter of begrudging Ceasar that which is Ceasar's. It's that we're Jews, not Greeks or Romans. We attend our temples to be reminded of our laws and our history more than to supplicate or bargain with a god. The Roman standards of the men Antipas has assigned to collect the tithe on flax simply don't belong in our houses of worship."

"Nor do the money changers, for that matter. Sure, they have to roost somewhere, and they pay fees to the temple that are used to help the poor. But it just isn't proper. I realize that we need moneychangers more these days since merchants must make cash transactions that can be monitored and taxed."

"Well, that Roman way of doing things may work for Philip. It doesn't go over here, and now there are rumours of a real nest of rebels talking treason in Jerusalem. What is it they call themselves? Zealots?"

"I guess it doesn't do much good to complain, and there's chores to think about. I should still be able to get some work done at home before the Sabbath begins at sundown. Hope Miriam has time to clean and cook the fish I bought to celebrate."