Combe-Capelle

Combe-Capelle is located in the Couze River valley. Couze River is a small tributary of the Dordogne, in southwestern France. Combe-Capelle consists of at least four distinct sites located on a limestone cliff. On the plateau surface at the top of the cliff (called the Plateau de Ruflet), a large open-air site contains Lower, Middle, and Upper Paleolithic remains. At the base of the cliff just at the edge of the plateau are two sites. The Abri Peyrony is a rockshelter that contains primarily Middle Paleolithic material. The other site, the Roc de Combe-Capelle, contains primarily Upper Paleolithic remains, although some Mousterian is also present. This site is best known for the recovery of a modern *Homo sapiens* skeleton in the Upper Paleolithic deposits. The fourth site, Combe-Capelle Bas, is located at the base of the cliff and contains primarily Middle Paleolithic remains. Because we are concerned only with the fourth site in *Virtual Dig*, we will refer to it simply as Combe-Capelle.

Although Combe-Capelle was discovered in the late 1800s, the first major excavations were carried out in the 1920s by a French Canadian named Henri-Marc Ami. Ami’s excavations began in 1926 and over four years he dug a 35-m-long (115 ft) trench going uphill from the base of the slope. He defined a series of stratigraphic layers (Levels I–V) and collected tools from each level. Unfortunately, Ami died in 1931 before he was able to publish the results of his work. Twenty years later, Maurice Bourgon undertook the task of publishing Ami’s results, but he also died before his manuscript was published (Bourgon 1957). Nonetheless, what we knew about the Combe-Capelle Bas sequence came primarily from Bourgon’s work. Based primarily on the collection of tools saved by Ami, Bourgon suggested that the lower levels of Combe-Capelle (especially Level IV) represented a Quina Mousterian. He classified Level III as a Ferrassie Mousterian and Level I as an MTA industry rich in Levallois flakes.

The site was reexcavated beginning in 1987 under the direction of Harold Dibble (one of the authors of this text) and his French colleague, Michel Lenoir of the Université de Bordeaux. We conducted these excavations to answer several research questions. Because the original excavations occurred before modern methods of dating and geology were developed,
little was known about the geological and chronological context of the excavated assemblages. The industrial sequence of assemblages at Combe-Capelle did not match those observed at other Middle Paleolithic sites in the area, especially that the Quina Mousterian was beneath, and therefore earlier than, the Ferrassie. We therefore designed excavations to obtain a good stratigraphic sample of artifacts to determine the reasons for this apparent anomaly. In addition, Combe-Capelle sits on a source of high-quality flint, enabling us to examine the influence of raw material availability on the artifact assemblage composition. These research questions dictated our excavation strategy and the types of analysis we performed.

We obtained funding for these excavations from several sources. The National Science Foundation funded the major portion of the work, and we also obtained funding from the University of Pennsylvania and private donors.

Excavations began in 1987 following an initial season of mapping and surveying and continued to 1990, followed by a study season in 1991 to complete the lithic analysis. We excavated three sectors at Combe-Capelle to sample the full extent of Ami’s trench and to obtain a representative sample of the geological beds that he excavated and the tool assemblage from each bed.

During the initial excavations in 1987, we located the edges of Ami’s trench, which had been obliterated by vegetation and slumping of the backdirt left from his earlier excavation. Fortunately the contact with intact deposits was relatively easy to define because the backdirt was much looser than the intact soil. We dry screened the backdirt through 1/4-in mesh screen as it was excavated to get a sample of material that Ami threw out, as it was a common practice in the early 1900s to keep only complete tools or good examples of tools.

Once we identified the edges of Ami’s trench, we set up several excavation units next to it. We excavated two units in Sector I at the base of the limestone cliff and Ami’s trench. We excavated one deep unit, A1, to provide a sample of artifacts and profile of the geological beds in the lower portion of the site and to locate bedrock. We excavated an adjacent unit, A2, along the west side of Ami’s trench. In Sector II, a series of 1 x 1-m units were excavated perpendicular to Ami’s trench, running west from his trench edge. The goal of our excavations in
this sector was to expose front and side profiles of the deposits to get a sample of industries and geological beds in the middle part of the trench. We excavated Sector III in the upper part of Ami's trench adjacent to the east edge of the trench in an area where the Level I MTA deposits were found. There we excavated two units, C1 and D1.

We used trowels to excavate deposits and placed dirt in a bucket for screening. We mapped in and assigned a unique identification (ID) number to all artifacts and bones over 3 cm (1.2 in) in size. We also mapped the center of the area where the fill of each bucket was excavated, giving provenience information to the small flakes and bones recovered in it. We mapped all natural rocks larger than a fist to aid in interpreting site geology.

We used a laser theodolite and electronic distance meter for the mapping, which made it quick and accurate. The theodolite was linked to a portable laptop computer, and all provenience information was transferred directly to the laptop. At the end of the day, we transferred the data to the main computer at the lab, where data could be checked for accuracy and a map of the site was continually updated.

Descriptions of the geological deposits were made by the archaeologists working with the sediments and by the project geologists. Level changes were marked by changes in color, texture, and cobble content. The levels were given preliminary level designations in the field; these could be refined as they were completed and a profile was drawn, and any changes could be input directly into the computer database. A geologist also visited the site during the excavations to draw profile maps of the completed sectors and to describe the deposits in geological terms.

After we excavated the buckets and artifacts, they were taken to the field laboratory, located in a building approximately 2 km (1.2 mi) from the site. There the artifacts were washed and labeled. The bucket fill was screened through 1-cm
(.4-in) mesh screen, and half of the buckets were also screened through 2.5-mm (.1-in) mesh. Two provenience tags for each bucket were printed in the field; one tag was marked "coarse" and was placed in a small plastic bag in a drying tray in which material from the 1-cm mesh screen was placed. The second tag was marked "fine," and the same process was followed for material from the 2.5-mm mesh. This material was then dried and sorted.

Lithic analysis was conducted in the laboratory, and all data were entered into laptop computers and later transferred to the main database where statistical analysis was performed. The analysis focused on technological and typological aspects of the assemblage. Variables such as flake type, platform type, cortex, tool type, and metric measurements were recorded for each stone artifact. Small flakes recovered from the screens were not analyzed individually, but material from each bucket was weighed and counted to get information on the density of small finds in each level. Because bone preservation was extremely poor, detailed faunal analysis was not done.
The final analysis of the data was completed when we returned to the United States. The results of our work revealed that Ami's original assessment of the stratified deposits at Combe-Capelle was biased by his policy of collecting complete and "good" tools and discarding others. With a better understanding of the industries, we found that the sequence at Combe-Capelle was not reversed, and in fact, there was no true Quina, Ferrassie, or even MTA at the site. We will not tell you now what kind of Mousterian assemblage was present, because you will soon be able to determine that for yourself.

The abundance of raw material at Combe-Capelle resulted in the production of large blanks that could be transported. Paleolithic groups did not visit the site specifically to gather raw material, as many other tools were found indicating that other activities were taking place at the site. The use of the high-quality flint at Combe-Capelle appears to have been rather opportunistic—something that groups took advantage of during their movements through the area, most likely in pursuit of game.

**Suggested Readings**

Dibble and Lenoir 1995; Dibble and McPherron 1996