



Figure 3.2 Major archaeological and palaeontological sites of Pliocene and Pleistocene age recorded in the Makapan and Swartkrans Valleys prior to the field survey project (Reproduced from Maguire 1998, Figure 16).

of raw materials and give some idea of the nature of stone working outside the Cave of Hearths. They provide the first step in the movement from localised cave setting to the surrounding landscape.

Field survey in Makapansgat's environs

In four major seasons of survey approximately 15 square kilometres of the immediate landscape surrounding the Cave of Hearths have been surveyed. Field walking has been the primary means of investigation, with teams inspecting all types of terrain including valley bottom, valley side and upland locations. Within this area, particular attention has also been given to the potential movement and deposition of archaeological material in water courses, and to places where raw materials are locally available.

The survey results can be described as either individual find spots, mini-sites or 'localities', or sites, where the distinctions between each category are made on the number of artefacts present. The initial assignment of 'localities' and sites was made in the field. On a regular basis through the field seasons the assignment of site or locality status has been reviewed in the light of increasing field experience. All individual finds were collected and spatially located/recorded by farm and GPS-derived position. For each locality or site, the range of materials present has been described and counted, and either total or large samples were collected. Locations were recorded by a GPS device. Descriptions of the local topography, vegetation and spread of material have also been recorded to account for differential visibility where appropriate.

When the Project started, there were three (cave) sites for the Middle and Upper Pleistocene recorded in the study area (Figure 3.2). As a result of the survey we have added an additional 5 sites, 31 localities and 458 individual lithic find spots (Figure 3.3). Field survey has revealed no large cave sites comparable to the Cave of Hearths. The survey reveals a small number of dense open-air lithic scatters located along water courses in the Makapan and Swartkrans Valleys. There are a number of smaller lithic scatters, some located along water channels, and others not. Individual findspots are widely distributed, but there are clear areas where individually discarded lithics are largely absent. In particular, individual find spots are scarce on steep and densely vegetated slopes, on thick alluvial/colluvial deposits and on certain areas of dolomite bedrock. Conversely, when quartzite forms the surface geology, lithic artefacts are usually present, although there are some upland areas to the north and northeast of the Cave of Hearths where they are rare.

The character of the lithic scatter results from a number of different processes. These include depositional processes by hominids, natural post-depositional processes and the retrieval processes employed by modern hominids, to use the terminology of Clarke (1973). The effects of the retrieval process are easiest to assess. Following the initial survey, there has also been a constant process of re-survey in later seasons under different light conditions and daytimes and with different team membership in order to eliminate human bias and to confirm the nature of the pattern revealed. We are, therefore, now convinced that the pattern of spread of lithic materials represents the real