x 3.95m, built on level ground (pl.4). It is still roofed, but no longer acts as either a residence, farmhouse or store; instead debris (rubbish, firewood) within the building indicates occasional recent usage by shepherds. Internal built features consist of traces of a raised partition in the western part of the house, and of a chimney central against the north wall, immediately opposite the doorway; in the north-east corner is a likely cupboard foundation. Set close to main road, and with a deep rock-cut cistern with built dome c. 20m distant, VG5 offers only limited terracing in its vicinity, to both west and south. The terraced area was still under almond cultivation. Clearly here the building was never designed to serve or accommodate animals and its only partially ruined roof might indicate that this is a relatively recent farmhouse for an agriculturalist/farmer who now merely maintains the terraces. Nonetheless, much older terraces, now badly overgrown and disturbed, extend from the road up the hill and to near the summit ridge of Tossal de Lamp, which divides La Gallinera from La Llacuna; these terraces radiate out from the small (store?) and seemingly much older building VG13 (710m) of just c. 3.6 x 3.1m (pl.5). The terraces reveal signs also of almond cultivation and the complex perhaps relates to upper slope farming on the part of the former owner of VG5. VG13 has recently been 'decommissioned' in that tiles from its roof were neatly stacked on the west flank of the building (although now slowly becoming obscured by shrub growth).

IV. POST-ABANDONMENT CORRAL SEQUENCES (JS, OC)

In conjunction with the Serra de l'Almirant survey work, a related ethnoarchaeological study was undertaken at Easter 1996 of 'abandoned' pastoral sites in the Famorca region, located in the Alcoi mountains in the north of the Alicante province. The aims were two-fold: firstly, to assess the value of studying present-day pastoral abandonment processes as a comparison with site abandonment and formation processes in the archaeological record, and secondly to gain an ethnographic understanding of seasonal environmental exploitation by shepherds in an area still employing traditional practices. Such studies have been pioneered in southern American and Pacific contexts, but are so far largely lacking for the Mediterranean, although a growing corpus of ethnoarchaeological research in Greece (Chang 1992), Italy (Barker & Grant 1991) and now Spain (Beavitt et al. 1995; Seguí 1995) provides a valuable starting-point.

The study embodied a multi-stage approach, commencing with the structural recording of all known pastoral sites in the Famorca area and the detailed scrutiny of artifact distributions and compositions in and around each site; a second phase saw EDM planning of a selected 'typical' site, combined with grid-walked artefact collection; the third stage consisted of a structured programme of interviews with members of the local pastoral community, supplying information against which to compare 'archaeological inter-

pretations' of the abandoned sites (for full analysis see Creighton & Seguí, forthcoming).

(i) Landscape and Economy

The southern limits of the Famorca territory are defined by the Serrella mountains, whilst the Alfaro mountains define the northern extent. A number of geological folds oriented SW-NE traverse the study area which is bisected by the W-E running Castell de Castells *rambla* (dry river bed); the landscape is characterised by a profusion of small terraces adapted to the folded topography. The climate is classically Mediterranean, with a summer drought, even winter temperatures and a maximum of precipitation in the autumn.

In socio-economic terms a high rate of rural emigration has ensured fairly recent massive population decline; at present approximately 50 people only live in the village of Famorca, with the summer season heralding a short-term population increase. Agriculture has long been mainly concentrated upon almond and olive oil production, with a gradual abandonment of the least viable terraces. Mechanisation and fertilisers have greatly facilitated increased production, but the unpredictability of the harvest and of the market structure in general has led young people to leave the village in search of more secure employment in the cities. Pastoral activity has consequently declined markedly, especially in terms of those practices managing only a limited number of animals. Indeed, presently there is only one (elderly) participant managing a small flock (of c.30 animals).

These dramatic changes have all had an impact on the old structures of pastoralism, the corrals, most of which are now ruinous. The elderly shepherd utilises two corrals on a seasonal basis, but with episodic supplementary usage of additional corrals. During Easter, however, a migrant shepherd with a large flock (over 200 sheep), now comes to the area from some 500km distance in a quest for economically viable pastures; his presence, albeit brief, is nonetheless witnessed in some of the corrals studied. A greater emphasis on olive and almond cultivation meanwhile, combined with mechanisation, has removed the role of many corrals, which were in any case often located so as to avoid areas of cultivation; some corrals have been used by agriculturalists to store some implements, or otherwise as shelters, and for herding activities. Ruinous corrals also now function as cover and shelter for hunters. Hunting retains an important role, for both food and sport. As a normally transient activity, the signals left by hunters fifty years ago were certainly less obvious than today, with the need to re-use cartridges previously ensuring systematic recollection afteruse, whereas discarded empty cartridges and cartridge boxes abound at present within and around corrals.

As noted, a key aim of the study was to understand the varied modes of post-abandonment activity at the corrals. These can be summarised as follows:

 Some corrals were abandoned, leaving them entirely unused and, through neglect, ruinous.

- Some abandoned corrals were used, almost immediately after their disuse as herding sites, or as a source for building materials. Tiles and, in some cases, beams, were taken from corral roofs, and re-used in the village; in certain corrals these materials are piled up awaiting collection (Re-use Type 1).
- Some corrals have been partially re-used as storage areas, normally for items of low value that owners would not keep in their houses in the village (Re-use Type 2).
- Some corrals have been converted into garages (Reuse Type 3).

(ii) Tiles and Artefacts

For each pastoral structure recorded, the volume of tile was recorded, respectively in (i) the 'interior' or (previously) roofed area of the site, (ii) the 'enclosure' area of the site (non-roofed areas of the sites bounded by walls), and (iii) the 'environs' of the site (encompassing an area within 20m of the edge of the structures). The collected materials could be further divided into (a) whole tiles, stacked or in storage, (b) whole tiles not stacked, (c) part tiles (the long axis being greater than 20cm), and (d) tile fragments (the long axis being less than 20cm). In addition the number of tiles in these various states still *in situ* on the roof was estimated, as was the original total number of tiles.

Other artefacts were collected in each of the three types of reused corrals and in each of the three differentiated zones within these corrals. The artefacts could be divided into the following categories:

- 'Work' items, subdivided into items used by shepherds, hunters and agriculturalists. Artefacts classified into these groups were either of industrial or hand-made origin, but originating in one of these areas of activity. Thus, for instance, a hoe was counted as an agricultural item, and a cartridge as a hunting item. In the shepherd's case, items used as fodder, such as olive tree branches or sacks of almonds skin, were also counted.
- Building materials. This refers to any building material apart from tiles found on or near the site, comprising pieces of wall, or timbers spread on the floor. This was a difficult item to assess, because in some of the corrals the level of destruction is extremely high.
- 'Other', refering to any other item found on the site not related to any of the activities areas cited above for instance, a cigarette packet or tuna tin.

It has been contended that the study of abandonment behaviour should focus less on the process *per se*, but more on the aspects of that behaviour relating to the composition of the material remains and their spatial patterning (Tomka & Stevenson 1993: 193). In this sense, the process of corral abandonment in the Famorca area is intimately related to the survival of the nucleated village as a settlement in the

present landscape. The continuation of settlement at Famorca has played a role in the reception of materials from abandoned corrals, in addition to, conversely, being the source of a proportion of items found in the corrals. Notably, distance appears not to be a significant determinant of the assemblage of materials originating from corrals; thus tiles from corrals a considerable distance from the village were used in its rebuilding. Certainly the presence of pack animals is an important factor, as they could readily reach corrals when good tracks or roads were not available. On the other hand, distance from the village appears to be an influential determinant of the selection of artefacts which emanated from the village found in corrals. Additionally, distance is an important factor influencing the selection of corrals used as stores, or as places to leave unwanted items (although not 'unwanted' enough to be thrown away). Corrals situated near the village dump are correspondingly influenced in terms of their artefact assemblage characteristics, with items either bought intentionally to the corrals by shepherds, or transported by other factors, such as the wind or other people.

(iii) Discussion

The 'abandonment' of corrals in the Famorca region emerges as a complex process. A continuum exists between the complete abandonment of a site in a single phase and the continuation of activity at corrals still in use. Between these two extremes come various modes of activity such as occasional or seasonal re-use of a site for pastoral functions. These processes of semi-abandonment activity are manifested in a number of ways. Although post-abandoment patterns of activity vary, a number of trends emerge: functionally, corrals can become places for the storage of a wide range of items; spatially, the structure of a corral can be altered in line with different modes of activity, often in the contraction of the roofed area; temporally, activity can become concentrated into a small number of days per year when the corral is used. Clearly, in order to understand these processes fully, or more coherently, the abandonment of an individual site must be related to the abandonment/partial abandonment/survival of other sites as well as to any nearby extant settlement(s).

V. ETHNOGRAPHIC SURVEY (JS, PB)

The ethnographic fieldwork on the Serra de l'Almirant zone presented here has been carried out primarily by Joan Seguí with help from Ferran Naya. A body of ethnographic data was recorded over five weeks in the Easter and summer of 1994 and over another five weeks in the Easter and summer of 1995. The survey was undertaken by means of interviews with those shepherds still living in the valley, most of whom no longer keep sheep; however, a few continuing active shepherds were also interviewed. The principal aims of the interviews were to define the profiles of the economics of pastoralism through examining the different

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