

Incendiary weapons from the Spanish Armada wreck *La Trinidad Valencera*, 1588

Colin J. M. Martin

Scottish Institute of Maritime Studies, University of St Andrews, Fife, UK

Introduction

In his instructions to the fleet issued just before the Armada sailed from Lisbon in May 1588 its commander, the Duke of Medina Sidonia, wisely cautioned that the incendiary weapons carried by most of the ships 'should be entrusted only to the most experienced men . . . if this is not confided beforehand to men who understand the management of it, great damage may result'. (Duro, 1885: 31–2). Documentary sources related to the equipping of the fleet mention two types of such weapons, *alcancias* and *bombas*. These may be identified, respectively, as gunpowder-based ceramic firepots and wooden tubes from which offensive fireworks could be discharged in series. Examples of both weapons have been recovered from the wreck of the Armada ship *La Trinidad Valencera*, which was lost off the Donegal coast in October 1588 and investigated during the 1970s (Martin 1979a).

Alcancias

In March 1586 a list was drawn up by the Marquis of Santa Cruz, Commander-in-Chief of Philip II's maritime forces, of the personnel, ships, weaponry, munitions and *matériel* he considered necessary for an invasion of England. Each item was meticulously costed, and its source of supply identified (Duro, 1884: 250–319). Under the heading of *fuegos artificiales* the Marquis noted 6000 *alcancias de barro* (earthenware), which were to be supplied at a unit cost of one *real* by contractors in Lisbon. Associated with the *alcancias*, and also costing one *real* apiece, were 6000 *abrojas* [thorn or prickle]. These may perhaps be interpreted as some kind of fuse. As price comparators, a matchlock arquebus

cost 25 *reales*, and a pair of leather shoes 3 *reales*.

After many difficulties and delays the fleet eventually mustered at Lisbon in May 1588, though on a scale much reduced from Santa Cruz's original projections. A considerable amount of its voluminous documentation has survived. Much of this material relates to the equipping of the enterprise, with detailed listings of issues made to individual ships. Of significance to this study is a note that 250 *alcancias* were on board the Ragusan ship *Anunciada*, of Martin de Bertendona's Levant squadron, before 14 May, on which date they were distributed *pro rata* among all ten ships of the squadron (AGS GA 221).

One of these vessels was *La Trinidad Valencera*, which duly received, via purser Demitri de Nicolo, her allocation of 25 *alcancias* and 15 *bombas*. These dangerous weapons were supplied in five barrels without iron bindings, a precaution used with all gunpowder products to avoid the possibility of accidental sparks (AGS CS 2: 1467 and 1476). Another entry of stores issued to the *Valencera* records 60 *pinetas de fuegos artificiales*, which were prepared for use by the ship's Venetian master-gunner, Polo. These appear to have been *alcancias* in their Italian guise (see below): whether they were additional to, or inclusive of, the 25 received from the *Anunciada* is not clear.

Among the pottery forms found during the excavation of *La Trinidad Valencera* is a clear-glazed red earthenware bottle with a flared neck and distinctive pinched waist (Fig. 1a). Its soft fabric with micaceous inclusions matches other red earthenware of the so-called Merida type, which have been shown to originate in Portugal