The Columbus-era Versos of Caballo Blanco Reef:
Summary Report from May 2013 Investigations
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Report to:
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Activities: This summary report is based upon Indiana University (IU) field research conducted by students and faculty researchers at Caballo Blanco reef south of Isla Saona, Dominican Republic in May 2013.

Verso: a Spanish wrought-iron swivel gun dating to the Columbus era. Versos were employed as light anti-personnel artillery mounted on the top deck of ships or walls and fired stone balls. Like most circa 1500 ordnance, versos were breech-loaders and typically had multiple breechblocks (tankard-shaped gunpowder canisters) for each gun allowing relatively rapid fire. Versos were also innovative as some of the earliest artillery with a trunnion that, in combination with the yoke, allowed for efficient, rapid targeting of the weapon (see Image 1). The verso was so effective that modified variants of this technology were in use as late as the early 20th century, long after the obsolescence of larger wrought-iron breech-loading artillery, such as bombards, in the mid-16th century.

Site: The Columbus-era Verso Site is located three kilometers south of Isla Saona in 9 feet of water on Caballo Blanco reef. Four versos are present in a 40 by 20 foot area and appear to represent a grounding site, as a corresponding circa 1500 shipwreck is not present (see Images 2, 3, 4, and 5). According to this interpretation, the versos were dumped as jetsam to lighten the ship after it ran aground on the reef. The versos are likely associated with the other Columbus-era resources on Caballo Blanco. Two stacked anchors and two bombards with their breechblocks, also dating to circa 1500, are located approximately 145 meters to the southeast (130°), and also represent a grounding site. While the ship apparently escaped the reef crest, it is possible that it sank in the back reef towards shore and has not yet been located.

 Threats: The hull of a modern recreational sailboat lies approximately 40 feet to the east of the versos (see Image 6). This sailboat sank in its present location after the previous IU visit to the Verso Site in 1996, as it was not present at that time. Sailboat debris is scattered among the versos and strong surge could potentially displace the modern hull onto the versos, potentially damaging or destroying them.

Recommendations: This report recommends recovery of all four of the Columbus-era versos present at Caballo Blanco reef for their protection, conservation, analysis, and exhibition. The versos are threatened in situ and also represent highly significant cultural resources associated with the era of Columbus and contact between the peoples of the Old and New Worlds. In fact, Caballo Blanco reef is the only documented site in the Americas with circa 1500 anchors and ordnance still in situ underwater. While the associated bombards and anchors do not appear to be threatened and should therefore be protected in situ as a Living Museum in the Sea, the versos should be recovered to prevent the loss of this unique cultural resource.
Images

VERSÖ (wrought iron swivel gun)
Circa 1500

Figure 1: The components of a verso

Figure 2: Verso 1 (2.20 meters long, oriented 105°)
Figure 3: Versos 2 (1.84 meters long at 120°) and 3 (1.88 meters long at 100°)

Figure 4: Profile of Versos 2 and 3
**Figure 5:** Verso 4 (1.70 meters long at 40°)

**Figure 6:** This post-1996 modern sailboat shipwreck threatens the versos adjacent to the west.