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ORIGINAL PAPER

Monuments in the Desert: A Maritime Landscape in Namibia

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Abstract *Eduard Bohlen II,* wrecked in 1909 on the coast of Namibia in Africa, has an illustrious history, which is part of a larger maritime cultural landscape linked to the diamond mining industry. The ship, like many artifacts and sites, served many different purposes over time and the historical and archaeological record incorporates different levels of meaning, some of which may be nationally divisive or reconciliatory. The role of historical archaeologists is not only to document, interpret, preserve and manage grandiose elements of heritage that evoke stakeholder nationalism, but also to explore the mundane, unsavory aspects of the historical narrative. In 2010, a team from the Program in Maritime Studies of East Carolina University supported by the Maritime Archaeology Division of the Windhoek Underwater Club investigated a surf boat, diamond mining settlement and some of the remaining structure of *Eduard Bohlen II*, while posing mitigation and management questions about legacy of historical memory within Skeleton Coast Park.

Keywords Namibia · Diamond mining · Surf boats · *Eduard Bohlen II* · Woermann shipping line

Introduction

A shipwreck is a maritime artifact that, on occasion, has multiple identities and invokes conflicting collective social memory beyond the usual seafaring story. *Eduard Bohlen II*, wrecked in 1909, and now embedded in a sand dune on the Skeleton Coast of Namibia in south-western Africa, is an example of a ship of this kind. It is an integral part of a remote

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desert landscape, exploited by colonial communities of whalers and diamond miners who left behind their surf boats, mining equipment and remnants of their encampments. The vessel has an illustrious history, serving at times as a passenger steamer, floating prison during the Herero holocaust, diamond miners living quarters, film set for an action packed desert romance, home to assorted wildlife, and icon of the desert for wildlife tourists. More recently, it provided an archaeological training site for members from the Windhoek Underwater Club in Namibia and graduate students from the Program of Maritime Studies at East Carolina University in the United States (Fig. 1).

Management of Cultural Resources in Namibia

Past heritage researchers have commented and made proposals about cultural resource management in Namibia. Amongst others, Goodman Gwasira (2009) critically assessed Namibia's overall management of cultural resources and Bruno Werz (2007) made specific suggestions about the future development of maritime archaeological research in the country. The National Heritage Council of Namibia currently oversees research on fossils, archaeological and paleontological material, rock art, meteorites, shipwrecks and marine archeology, historical places and buildings, sites of spiritual significance, and any declared National Monument.

Each member of the Namibian police force and each customs and excise officer is an honorary heritage inspector. The Council may also appoint additional persons to be heritage inspectors. These appointments include any staff member of the public service or a public authority with the consent of the Minister or other person in charge of the relevant Ministry or of the public authority. According to the Namibian law, these Heritage

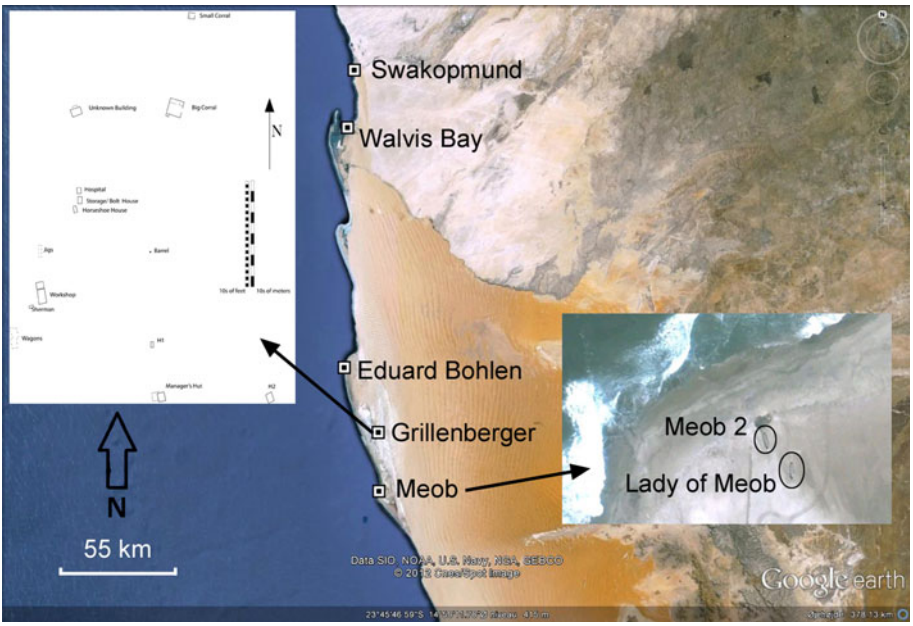

Fig. 1 Map of sites and project area in Namibia

Inspectors may, at all reasonable times, enter upon any land or premises to inspect any protected heritage resource. They are permitted by law to take photographs, make measurements and sketches and use any other means of recording.

There are very few professional archaeologists in the country. Most work for museums or as contract archaeologists for mining companies. None has academic training or experience specifically in maritime archaeology. Some have worked on middens and other prehistoric sites in the coastal zone, but do not include shipwrecks as part of their research designs. Apart from the paucity of expertise available, there is also no formal infrastructure for nautical archaeology research either in situ, or the recovery and conservation of finds from the marine environment (Werz 2007:116). Visiting researchers are strongly encouraged to work with and through Namibian organizations. This is intended as a mutually beneficial process and the organization is encouraged to assist with the necessary permits and advise on local conditions related to the work. In return, the legislation promotes the philosophy that local organizations and researchers can benefit from the skills and knowledge brought by visiting professionals. Permits to conduct research in Namibia are usually granted freely and fairly quickly to *bona fide* or legitimate researchers as assessed by heritage officers—that is, those associated with a professionally respected institution, agency or with an individual with a legitimate research goal. The Scientific Council reviews all permits on a case-by-case situation. This process can often be greatly facilitated through a link with a local organization. There is no single system of permits covering all research fields, and researchers are encouraged to contact the Permanent Secretary of the relevant ministry.

Two research areas where permits are particularly important are those related to conduct of research in the National Parks. Permission requests are directed through the Permanent Secretary of the Ministry of Environment and Tourism. Shipwrecks are protected by the legislation issued under Sect. 52 (1) National Heritage—Act 27 of 2004. On 9 March, 2011, Namibia ratified the UNESCO 2001 Convention for the Protection of the Underwater Cultural Heritage.

Prior Coastal Expeditions and Archaeology on the Skeleton Coast, Namibia

The majority of land in Namibia comprises arid savannah grassland and desert. In the west is the Namib Desert extending from the north of South Africa up to Angola. The desert zone has a width of about 100 km characterized by large expanses of sand dunes in the central area. Namibia has a substantial coastline orientated north-northwest to south-southeast and is approximately 1,500 km long. It stretches from the mouth of the Kunene River in the north, on the border with Angola, to the mouth of the Orange or Gariep River in the south, on the border with South Africa. The coast consists mostly of sand and gravel beaches, with rocky headlands and cliffs in places. In many instances, salt pans and high shifting sand dunes are adjacent to the shoreline. The coast has few natural places of refuge for shipping. There is constant, heavy surf on the beaches, making it dangerous to get ashore and launch boats through the surf. Walvis Bay, in the center, and Lüderitz, further south, are the only two ports along the entire coast. Namibia has declared 16,000 km^2 (6,200 mi^2) of the coast the Skeleton Coast National Park, extending from the Ugab River to the Kunene. The northern half of the park is a designated wilderness area. The remainder of the coast is the National West Coast Recreation Area (Werz 2007:108; South African Navy Hydrographer 1975:2).

The dramatic coast has been the subject of a number of wildlife documentaries, particularly about adaptations to extreme aridity. Skeleton Coast has a greater variety of species than many other parks in southern Africa. Large mammals include Namibia's famous desert-adapted elephant, black rhino, lion, cheetah, giraffe, gemsbok, zebra, springbok and spotted and brown hyena. The Skeleton Coast is also associated with famous shipwrecks, and stories abound of sailors walking for hundreds of kilometers through this barren Namibian landscape in search of food and water. The name is derived from bones that lined the beaches from whaling operations and seal hunts, but some of the skeletons are human remains. Upwelling of the cold Benguela Current gives rise to dense ocean fogs for much of the year. The winds blow from land to sea, rain fall rarely exceeds 10 mm annually and the climate is inhospitable. The main cause of the shipwrecks along the Skeleton Coast is the cold, fast flowing Benguela Current with dangerous cross-currents and enveloping fogs. These factors are combined with gale force winds and huge waves, treacherous rocky reefs and shifting sand shoals (Schoeman 2003:97–117).

Mining in the area south of Lüderitz started as early as 1863, primarily for guano, and traces of copper and silver. In 1908, diamond mining began. Since then, the coastal stretch between Lüderitz and Oranjemund has developed into one of the most important diamond-producing areas in the world. Between Conception Bay and Meob Bay the mining settlements of Holsatia, Charlottenfelder and Grillenberger were established during the heyday of diamond mining (Fig. 2). Engine-driven transport was not available during the first 15 years of exploration. As a result, supplies and mining equipment were transported mainly by ship from Swakopmund using the route via Sandwich Harbour, Conception and Meob Bays. During 1912/1913 a light railway ran from Conception Bay to Conception Water, and an 80-km pipeline linking the settlements was built. Many pre-fabricated buildings were erected at the various settlements, and some of these are still visible today. Today, Namibia is also the world's technological leader in mining diamonds from the seabed (Schneider 2009). Mining is probably the most destructive activity for in situ shipwreck preservation in the area.

Although legislation is in place to protect and preserve archaeological resources, this is often insufficient. The Namibian National Monuments Act condemns interference with sites and only allows adequately trained personnel who have been granted permits to work in this area; mining, road construction and agricultural activities are exempted. Regardless, there is a problem controlling access to these archaeological sites. Access to diamond concession areas within beach parks solely depends on approval of the mining companies, further highlighting the impotence of legislators and law enforcement agencies (Werz 2007:115).

The first recorded tourist expedition to visit the remote destination of Meob Bay was in 1959. Eight men in four land rovers loaded with water, provisions, and emergency equipment embarked on the 300 mile trip, averaging only 16 miles a day through the desert terrain (*South West Annual* 1960:83–87). A 1960s newspaper article reported the group of local men—P. Vincent, T. C. Botha, R. Lang, R. Schaaf, R. Gramosky, H. Hilse, P. Wessels, and N. Dreyer—passing the remains of a Portuguese galleon, *Cawdor Castle* (1926), and the Grillenberger mining encampment, the store houses of Meob Bay, and the rusted remains of *Eduard Bohlen II* (Fig. 3). The shipwreck was later used as background by the Towers Film Production Company of London for the 1964 film "Coast of Skeletons". It featured a fictitious explosion of the vessel. An article in the *Namib Times* on Friday, 25 October, 1964, describes that the simulated explosion of the wreck was performed by placing dynamite in the sand dunes near the wreck. The article author notes that the wreck was largely undisturbed (except as a nesting place for seabirds) *until* it was used

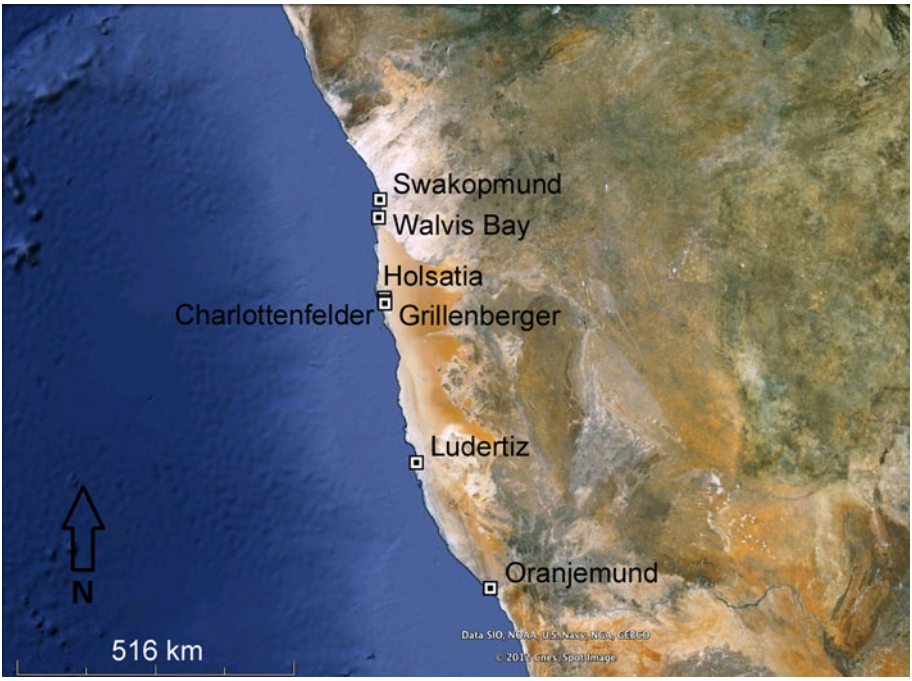

Fig. 2 Map of the diamond fields discussed in this article

as background for the film. It claims that the wreck was not damaged (*Namib Times* on Friday, 25 October, 1964).

In 1970, Namibian archaeologists Beatrice Sandelowsky and Wade Pendleton published a report on the prehistoric archaeology of the Meob area (Sandelowsky and Pendleton 1970:48, 51, 53; Sandelowsky 2004). The two researchers discuss middens that contained the usual assemblage of stone tools, pottery, worked animal bones, and human skeletal remains in addition to Dutch East India Company copper coins and wire and iron fragments (probably ship sheathing). Mary Seely, another local archaeologist, published a more extensive report on middens in this area in 1973 (Seely 1974–1975:5–6, 15–26). Sandelowsky continued to teach topics in pre-historic archaeology with keen insights into the political conditions and problems connected with communication, administration and inadequate professional information about this interdisciplinary field. In a chapter in a recently published book, she explores the role of individuals and of institutions such as museums and international organizations in relation to the great potential that archaeology could hold for future development in southern Africa (Sandelowsky 2011:769–784).

The Maritime Archaeology Division of the Windhoek Underwater Club (WUC) began visiting and recording locations of the Holstatia, Charlottenfelder, and Grillenberger diamond encampments and shipwrecks in Meob and Conception Bays during the 1980s. Theo Schoeman, a local businessman, was the founding member of this avocational group. Gunter von Schumann acted as the club's researcher, compiling historical information about shipwreck sites with the intention of publishing a book on shipwrecks of Namibia. He also serves on the Namibia Scientific Council as representative for maritime archaeology issues. In 1994, the University of South Carolina and the National Monuments

[*P. Vincent*

The members of the Meob expedition. Left to right, standing: H. Hilse, R. Gramowsky, T. C. Botha, R. Lang, P. Wessels, N. Dreyer; kneeling: P. Vincent, R. Schaaf.

Lede van die Meob-ekspedisie. Links na regs, staande: H. Hilse, R. Gramowsky, T. C. Botha, R. Lang, P. Wessels, N. Dreyer; knielend: P. Vincent, R. Schaaf.

Die Teilnehmer der Meob-Expedition. Von links nach rechts, stehend: H. Hilse, R. Gramowsky, T. C. Botha, R. Lang, P. Wessels, N. Dreyer; kniend: P. Vincent, R. Schaaf.

Fig. 3 Expedition to Meob and Conception Bays in 1959 (*South West Annual* 1960)

Council of South Africa offered a NAS course to the group and participated in an expedition to the Sperrgebiet to visit these sites in conjunction with von Schumann and Schoeman (Harris 1996, 2002).

Published academic research focusing on maritime archaeology includes a Dutch ship in Meob Bay first located in 1993 by the WUC. It was surveyed and tested in 2001 by the avocational group with the participation of Bruno Werz of the South African Institute of Maritime Archaeology (SAIMA). The project team conducted Phase I and II activities, setting up grids to search for cultural materials. The bulk of the finds were copper Dutch East India Company *doits* scattered along the shore. Although the structure of the ship was not located, flotsam with brass pins was recorded. Dates on the coins compared to archival sources indicate that the most probable candidate was *Vlissingen,* lost in 1747 *en route* to the East Indies (Werz 2008:47–74).

More recently, an early Portuguese wreck was discovered, recorded, and salvaged during the diamond mining operations of NAMDEB, a joint venture company between the Namibian government and De Beers in Oranjemund. The company hired the services of a

local consulting archaeologist for NAMDEB, Dieter Noli, who conducted initial excavations in April 2008. The shipwreck was deemed internationally significant and Webber Ndoro of the African World Heritage Fund was appointed as project manager. The rescue-recovery project was funded by the Namibian, Portuguese, and Spanish governments, while NAMDEB provided logistical support. Namibian government officials brought in other experts, including Bruno Werz from South Africa and Portuguese experts Francesco Alves and Miguel Alleluia. The cargo included metal ingots, ivory, coins, pewter crockery, medical instruments, navigational equipment, shoes, and weaponry. The finds provide an interesting snapshot of life aboard an early Portuguese vessel. Coinage presents a provisional *terminus post quem* after 1525 and preliminary identification of the ship by Portuguese nautical archaeologist Paulo Monteiro pointed towards *Bom Jesus,* captained by Francisco de Noronha. This vessel was reported lost somewhere off Africa in 1533. *Bom Jesus,* or 'Good Jesus', was one of seven ships that sailed for India from Lisbon under the overall command of the nobleman Dom João Pereira (Chikure et al. 2010:37–55).

In 2007, the WUC's Maritime Archaeology section initiated a new terrestrial direction in heritage projects with efforts to stabilize cultural features on the landscape, including surf boats and pre-fabricated huts of the coastal mining settlements. Gunter von Schumann continued to gather historical texts and photographic materials about shipwrecks along this portion of the coastline and contributed to the recently published volume *Treasures of the Diamond Coast* by geologist Gabi Schneider (2009). The book is an extremely valuable work on the development of diamond mining in this area and its context in Namibia.

East Carolina University Expedition: Surf Boats, the Grilleberger Diamond Mining Encampment and *Eduard Bohlen II*

The fieldwork logistics for the 2010 summer study abroad program were coordinated through the WUC club. These summer programs, offered around the world by various ECU departments, allow students to broaden their horizons by applying their academic training in overseas settings. Community partnership projects are endorsed and encouraged. The objectives of this expedition were to investigate two surf boats at Meob Bay, the Grillenberger Mining Encampment and the *Eduard Bohlen* II shipwreck in Conception Bay. The fieldwork team departed from Windhoek, the inland capital of Namibia, taking all provisions and camping equipment for a 10-day project at the coast. As this area currently has protected status as part of the Namib Naukluft Park (No. 3) in the Namibia state managed system of 20 protected areas (PA's), the group required a permit and the support of the Parks Division of the Ministry of Environment and Tourism. Entry into the diamond mining area required another permit from the National Heritage Council of Namibia (Issued under Sect. 52 (1) of the National Heritage Act—Act 27 of 2004) and accompaniment by a representative from the Museum of Namibia. Only eight vehicles were allowed into this sensitive area. Park restrictions also limited the number of ECU and WUC participants. These park systems cover an area of 114,000 square kilometers or 13.8 % of the country. Nature parks are a significant cornerstone of Namibia's tourism industry and backbone of the national economy. It is believed that these areas have untapped potential to alleviate poverty considerably and encourage environmentally sensitive community development or projects in rural areas (von Schumann and Schenk 2009:20).

Taking a similar route from Walvis Bay to Meob Bay as did the 1959 party (*South West Annual* 1960:83–87), our 2010 summer abroad expedition experienced the same commuting challenges. Vehicles ramped up or surfed down sand dunes, occasionally sliding or

driving half in the breakers along the Lang Wand (long dune), and sped along the beach in order to utilize the low tide window to reach the study areas. The project required basic tent camping, as well as shared cooking and clean-up duties (Harris et al. 2010). The research intent was to document and connect these significant archaeological sites to a broader, collective maritime narrative of the Atlantic world encompassing Europe, North America, and other parts of Africa. All of the sites, according to the local stewards from WUC who visit the area regularly, are deteriorating as a result of sand scouring desert winds and salt laden beach fogs.

The desolate landscape is littered with whale bones, diamonds, and remnants of vessels from eras when the country was an important colonial mainstay. Two small surf boats beached at Meob Bay may have played vital roles in either the whaling or mining industries. American whaling business in southern Africa is well documented from colonial times onwards. Several ship logbooks and an array of other primary and secondary sources suggest vessels going to Africa belonged primarily to Nantucket whaling fleets (Haywood 1967; Dekker and de Jong 1998; Brooks 1970; Farr 1983; Stackpole 1953; Booth 1964; Eldredge 1992; Townsend 1935; Tower 1907). The bays of south-western Africa were the most popular for southern whaling, especially between June and September, when whales entered the bays to wean their young (Booth 1964:278). In the years immediately following the American Revolution, Walvis Bay in Namibia was the most popular of these bays, with American whalers heading directly there and providing the bay with various names related to its bounty (e.g. Woolwich, Walfish, and Whale Fish). By 1795 reports describe between 20 and 30 American whalers in the bay every season; anchored where they could wait until the whales entered for food and then launch their small whale boats to catch and process the animals (Booth 1964:278–279).

The larger vessels deployed smaller, more maneuverable whale boats. The whale boats, also referred to as surf boats, changed little in the two centuries of deep-sea whaling; the work boats were round hulled and double ended for facilitating movement forward and backwards through the surf, and were propelled by a combination of oars and sails (Tower 1907:86). The only significant change in these whale or surf boats was in size, which increased from a length of 20 feet in 1720 to an average of around 28 feet, with some as long as 38 feet well into the early twentieth century, usually being made of white oak, cedar, spruce, or hard pine (Tower 1907:86). Alexander Starbuck (1989:123) provides a further description of whale or surf boats and their fittings. These boats were designed to withstand the peril of the chase and the value of the prize. They were designed with these attributes in mind: lightness and form, carrying capacity as compared with its weight and sea going qualities, speed and facility of movement, the placement of men to take advantage of their own raw power, the adaption of the length of the oar and its placement, and the simplicity of construction. Thus, the boats had long, sharp, and clean-cut hull lines at the bow and stern, swelling to 6 feet amidships with a buoyant, round bottom. The gunwale and keel, 22 in. apart, were the heaviest parts, providing stiffness to the whole vessel. The thwarts were supported by knees of a great strength (Starbuck 1989:123). They were either lashed to the side or stowed aboard larger whaling ships (Fig. 4).

Diamond-mining supply ships also utilized the services of surf boats, often manned by crews from Liberia. Supplies, taken off the ships by surf boats, were transported to the diamond fields and camps in mule- or ox-wagons. The use of lighters and surf boats to land supplies from steamboats was prevalent in many parts of Africa with the absence of established harbors and ports. In 1896 the first surf boats were delivered to Namibia. By 1914, the Woermann Steamship Line had imported 200 surf boats to the Namibian coastline to offload workers, mining equipment, rations, animal fodder, and miner supplies

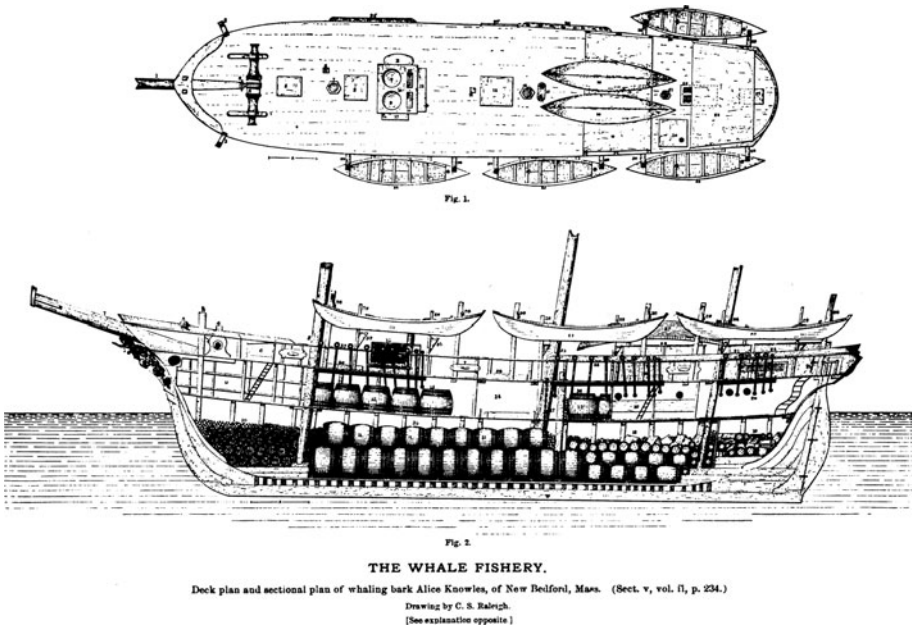

Fig. 4 Whaling surf boats (from Goode 1887)

(von Schumann and Schenk 2007:2). Ships voyaging along the west coast usually employed Liberian crews due to their skills in the treacherous African surf. Many of these Liberian mariners or "Kroo-men" or "Krumen" served also as wage workers aboard the steamboats, which included the task of bringing people and supplies with oared boats through the rough surf to the coastal beaches (Christy 1931; Davis 1907; Fraenkel 1966; Knowles 1927; Phillips 1889; Syfert 1977; Glave 1893; Stanley 1874; Dennett 1887; Cowan 1936).

The Woerman Line that serviced Namibian diamond settlements was the most prevalent of the ships that made regular stops and recruited labor from Liberian communities (Frost 1999:17; Starr 1913: 49, 247). Liberians were known to work surf boats in Meob Bay, an unloading venue for steamers known to the mining prospectors in the early 1900s as Mutzelbucht. WUC members believe that the surf boat or "Brandungsboot" may be one of the vessels handled by Liberians C. Lewis, David Freeman, and Bolah Wreh (Schneider 2009:93–94, 209). Liberians used a variety of surf boats, including log boats, to transport goods and people from ship to shore in other African countries. These work boat mariners went into temporary contractual service for the German steamboat lines and were later dropped off at their home port. Early postcards depict Krumen teams who worked as deck hands on these ships, but also served in a multitude of roles ranging from surf boat operators and even saxophone players in musical performances. Historical sources describe these African mariners as Krumen who were paid African laborers primarily associated with the larger maritime trade of western Africa, not only Namibia. Krumen could be Vai, Gola, Dei, Kpelle, Kru, Glebo, Bapo, Nyambo, or Sabo in ethnicity and originated from Liberia (Martin 1985:401–402). Martin notes that Europeans called both the mariners and the laborers along the west coast "Krooboys" and defined them by their occupations and

their cost (Martin 1985:401). They were considered valuable workers both for their stamina and the vigor with which they performed their duties as jacks-of all-trades.

The surf boat ECU recorded—dubbed *Lady of Meob*—is located approximately 133.15 m from the shoreline. Total length of the vessel is approximately 11.13 m and it is 2.46 m wide at amidships. The vessel is a rocker-shaped, double-ended vessel with no distinction between bow and stern. Four thwarts with knees are attached to hull sides with iron nails and an iron bolt. A gunwale timber runs the length of the vessel with oarlock fittings made of iron, staggered eight to a side—16 in total. Vessel construction includes a rub rail one strake below the gunwale. There are additional supports and four notches, indicating the possibility of additional missing thwarts. Small uprights support and connect the strakes on the interior with iron nails and washers. Smaller floor frames are sandwiched between two heavy planks that run the length of the vessel, which serve as keelsons. These keelson "planks" are fastened with square-headed iron nails. In the bow portion of the vessel, a chain plate is attached to the gunwale with iron washers and bolts. A large iron ring is attached to the stempost and a large hexbolt connects the gripe to the stempost. In the bow, a platform comprised of four planks is supported below by an additional piece of wood attached with iron nails. The small knees in the bow are angled. On the starboard gunwale, an arrowhead scarf has a plugged hole in the center. The outer hull is carvel planked (Figs. 5, 6).

The WUC has conducted restoration on the vessel, providing supports for air circulation, reattachment of loose planks, removal of sand build up, and saturation of the surface with a mixture of linseed oil and mineral spirits. Despite the best efforts of the WUC, the vessel is structurally stable but exhibits signs of deterioration related to the physical environment that includes abrasion of the wooden surfaces from sand particles and cycles of seasonal warm and cold temperatures. Along the exterior of the vessel, certain areas are delaminating and the bottom of the hull is showing signs of defibration due to high humidity. Recommendations for future work on the surf boats include: (1) explore ethnographic and historical records on contemporary and historic surf boats in Liberia to compare with the construction of *Lady of Meob*, (2) investigate American and Namibian whaling records to gain further insights into the role of Meob Bay as a whaling depot, (3) wood sampling of all the structural features of the Meob boats and dendrochronology sampling, (4) continue to monitor the in situ preservation of the Meob boats and treat according to conservation plan recommendations.

Further investigation into the identity of these vessels as American whaling boats is warranted by examining in more depth the logbooks of American whalers. Additionally, a more comprehensive sampling of the wood that includes dating dendrochronology may provide more concrete evidence of the period to which the vessels belong. Research warrants further exploration of the ethnographic and historical documentation of Liberian surf boats as well as comparing the Meob boats to First World War surf boats which were similar to the study vessels before the improvements of added outboard motors. The Meob vessels additionally require continued monitoring of their conditions and the in situ preservation that is currently being employed. If the vessels are allowed to deteriorate, a valuable and finite resource that is key to understanding the history, economy, and culture of such a unique environment could be lost.

The WUC members also initiated stabilization projects on the diamond mining settlement structures. Most housing for the settlements was imported wooden prefabricated huts from Germany, due to a lack of artisans and building materials available at local towns such as Swakopmund and Luderitzbucht. The oldest hut, located at Fischersbrun, dates from 1864. These prefabricated structures were listed in catalogues for the international

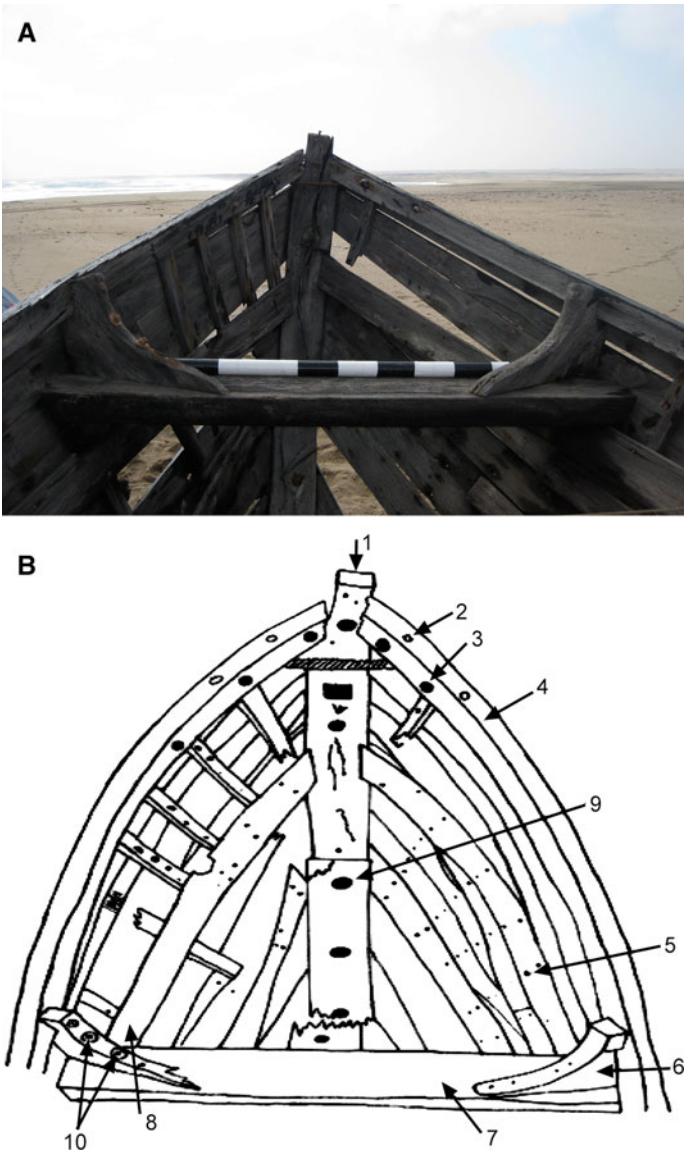

Fig. 5 Bow of the Meob surf boat (photo: ECU; drawing: Walter Hauwanga, Windhoek Museum). Photo **a** taken from the bow and numbered plan drawing **b** showing: 1. stern post, 2. holes for dowels (2.5 cm in diameter), 3. iron fastening for outside plank (3 cm), 4. gunwale, 5. nail in interior plank, 6. knee, 7. thwart or seat, 8. interior side plank attached to small standing side supports, 9. large metal bolt attached to stern posts and protective iron plate strip, 10. threaded bolt with washer and nuts (washer is 3 cm in diameter)

market, especially North America. As mining operations and demand for more accommodation in the harsh environment increased in the twentieth century, companies also began to purchase second-hand huts which were shipped to Conception and Meob Bays to be transported inland to the towns of Grillenberger, Charlottental, Conception Bay and Conception Water.

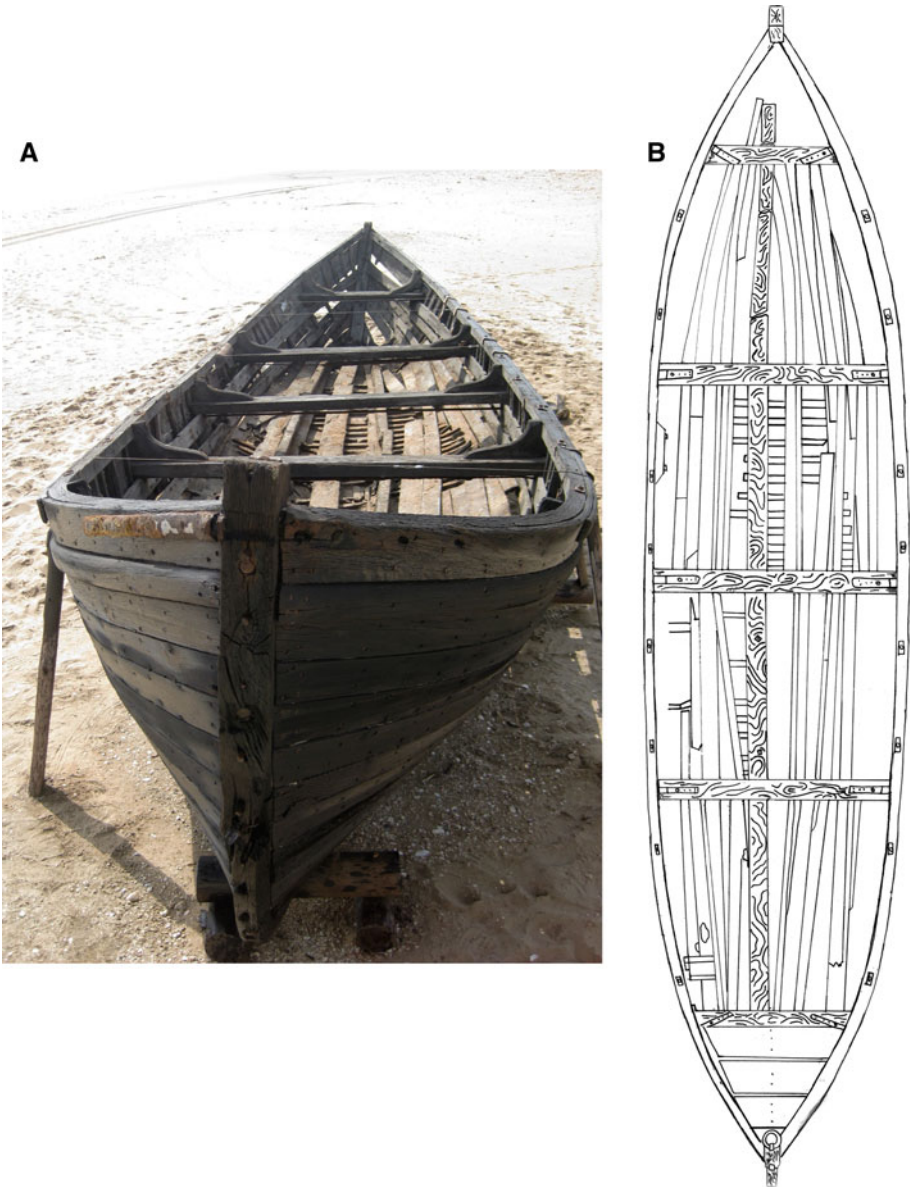

Fig. 6 Moab surf boat, photo **a** taken of the bow (photo: ECU) and drawing **b** showing plan view (drawing: Jennifer Jones)

A distinctive part of the social history of the mining operations at these settlements was the workforce of Owambo men who came from communities concentrated in north and north-eastern Namibia. When men left for the mines, women and children took over their chores on the home front. By 1918, Luderitzbucher Minenkammer at Okaukueko station records list 2,800 workers that were recruited from the north. Miners received a contract or *okahola* specifying work hours and payments only if they were physically examined and

considered fit and strong for certain work duties. A grading system from A to D classified workers as physically fit for any work, for light farm work or unfit for any work (Schneider 2009:113–114, 193–194). Water for the mine camps was piped or rolled in wooden vats from a natural spring at Fischersbrunn, where an oasis irrigation scheme also allowed desert agriculture of a great variety of fruits and vegetables. Animals including horses, mules, donkeys, oxen and other small livestock were brought to the mines for working purposes. Transportation of supplies to mines was a medley of small and large vehicles such as Mercedes-Benz trucks, Chevrolet *lorries* or pick-up trucks, and wind driven carts with small sails. Workers lived in pre-fabricated huts, some accommodating ten to 12 workers. Many companies maintained small field hospitals and roaming minefield doctors who would do regular rounds of the mines. Some mining settlements like Grillenberger had a small 20-bed hospital under the supervision of a chemist and medical doctor who would visit Grillenberger for an inspection every 3 months (Schneider 2009:48, 114, 193).

Non-mechanized systematic sweeping of areas with brooms and crawling on hands and knees to look for diamonds proved to be productive. Hand-operated mining equipment includes a variety of jigs, sieves, and other sorting and washing apparatus. Wooden cases carrying an entire mining kit, including all these apparatus for a one-man operation, were shipped from Swakopmund. With time, mining establishments became increasingly innovative adapting and modifying their hand-operated assemblage. The equipment often needed maintenance and modification with whatever was available, requiring a workshop and blacksmiths at the settlements. They fitted horseshoes, repaired carts and ox wagons, maintained steam wagons, kettles, and served as a foundry for casting iron, copper and aluminum (Schneider 2009:31–33, 48).

The Grillenberger site currently consists of five dwellings and two other larger structures identified by WUC members as a hospital and workshop. Other site features included animal *kraals* (corrals), a large concentration of cattle bones and horns, diamond mining jigs, a Sherman tank with an adapted tow hitch, ox wagons, a workshop with an innovative power system utilizing hooks and pulleys and a section of vehicle transmission shaft to operate machinery like a compressor, milling machines and lathes. Rubbish dumps on the southern end of the site included an assortment of early twentieth-century and more modern items associated with use of the settlement inhabitants like pottery, bottles, cans, bones, and even old newspapers, postcards, letters, and work logs listing diamond mining supplies and names of miners and payments (Figs. 7, 8). Each feature on the site was documented using GPS, photography, and traditional mapping methods using offsets and trilaterations. Samples of some of the exposed documents in the rubbish dump were taken to the museum in Swakopmend for curation.

The History of *Eduard Bohlen II*

Eduard Bohlen II served first as a mail, cargo, and passenger steam ship. Launched at the Blohm and Voss shipyard in Hamburg on 23 October, 1891, the vessel was purchased by the Maritime Society of Congo and later joined the African Steamship AG Woermann-Line. Like *Eduard Bohlen I,* the vessel was a steel hulled steamship with a brigantine sailing rig. Until 1895 *Eduard Bohlen II* was the first vessel to transport mail on the route between Hamburg, Germany, and West Africa. On 20 February, 1895, Adolph Woerman, the African Steam Ship Company ship owner, and shipping agent John Picard Best founded the Cie. Belge Maritime du Congo, based in Antwerp. Their intent was to exploit opportunities along the lucrative trade route between Europe and Africa and *Eduard*

Fig. 7 Grillenberger mining equipment (photo: ECU)

Bohlen II was transferred to the new company (Table 1, Figs. 9, 10). On 6 March, 1895, the ship sailed from Antwerp to the Congo under a Belgian flag for the first time. In 1898 *Eduard Bohlen II* was transferred back to the Woerman Line and sailed under the German flag again, this time to German West Africa, an area that at the time was undergoing turbulent colonial interactions with the indigenous populations (Kludas 1954, 1975; http://www.theshipslist.com/ships/descriptions/ShipsE.html).

From 1884, Namibia was a German colony known as German South West Africa. After the First World War, the League of Nations mandated South Africa to administer the territory until it finally gained independence in 1990. Ongoing local rebellions against German colonists escalated in 1904 into the Herero and Namaqua Colonial Wars. Herero men attacked remote farms on the countryside, killing approximately 150 Germans. To counter the situation, Germany sent 14,000 additional troops. The Battle of Waterberg in 1905 was a turning point in the rebellion. German administrators issued an ultimatum to the Herero, denying them citizenship rights and ordering them to leave the country or be killed. Most Herero retreated into a western arm of the Kalahari Desert, the waterless Omaheke region, where many died of thirst. A few managed to escape into neighboring British territories. Today, these tragic events, known as the "Herero and Namaqua Genocide", resulted in the deaths of between 24,000 and 65,000 Herero (today estimated at 50–70 % of the total Herero population) and 10,000 Nama (estimate of 50 % of the total Nama population). Surviving Herero people were rounded up and sent to work in labor camps on the railways. For many of them this was simply a death sentence (Kössler 2012:233–238).

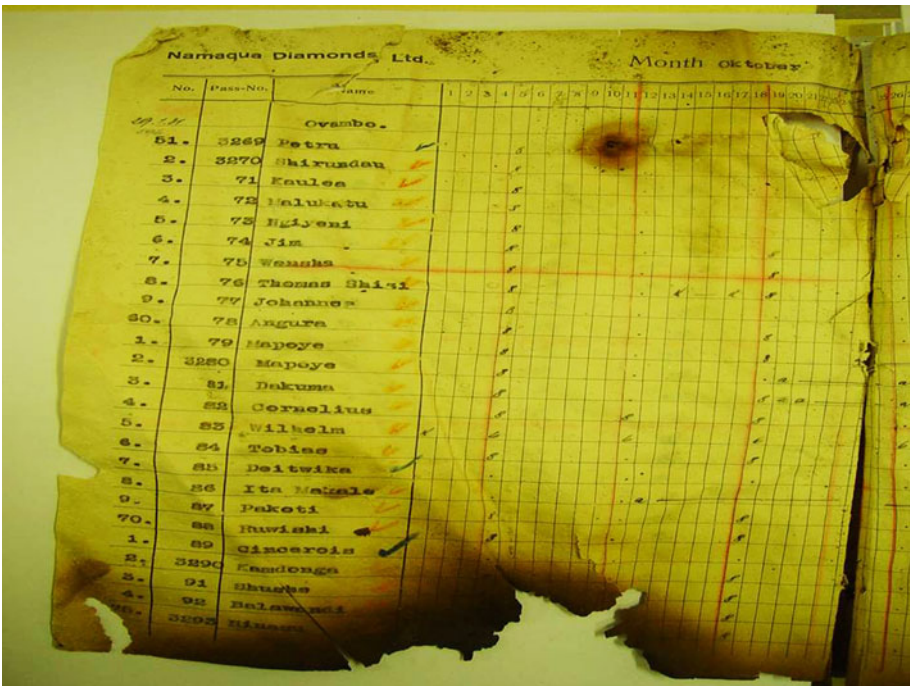

Fig. 8 Grillenberger mining document (photo: ECU)

Table 1 *Eduard Bohlen II:* baseline locations of plan view features

GPS co-ordinates for *Eduard Bohlen* features			
Rudder	Outside	S23°59′46.85″	E14°27′26.27″
Stern	End	S23°59′46.85″	E14°27′26.30″
Exposed deck framework	Mid-point	S23°59′46.52″	E14°27′26.49″
Pair of vents	14.30 m	S23°59′46.27″	E014°27′26.22″
Bulkhead framework 1	21.89 m	S23°59′46.12″	E014°27′26.73″
Funnel step	39.11 m	S23°59′46.00″	E014°27′27.08″
Davit and pulley	47.0 m	S23°59′45.99″	E14°27′26.61″
Elevated mid-ship deck	62.80 m	S23°59′45.05″	E014°27′27.42″
Bulkhead 2	63.00 m	S23°59′45.08″	E014°27′27.36″
Gear mechanism	72.80 m	S23°59′45.80″	E014°27′27.59″
Broken mast sections	77.50 m	S23°59′45.99″	E014°27′26.61″
Elevated bow deck	85.46 m	S23°59′45.92″	E014°27′27.61″
Davit and gear mechanism	98.50	S23°59′45.81″	E014°27′23.05″
End of wreck	99.0	S23°59′43.95″	E014°27′28.00″
End of dune		S23°59′27.97″	E014°27′28.02″

Broken guard rail on port side runs from 22 to 35 m

Intact guard railing on port side runs for 35–65 m

Exposed deck beams in stern start at 7.54–21 m

Beam at deck framework is 8.73 m

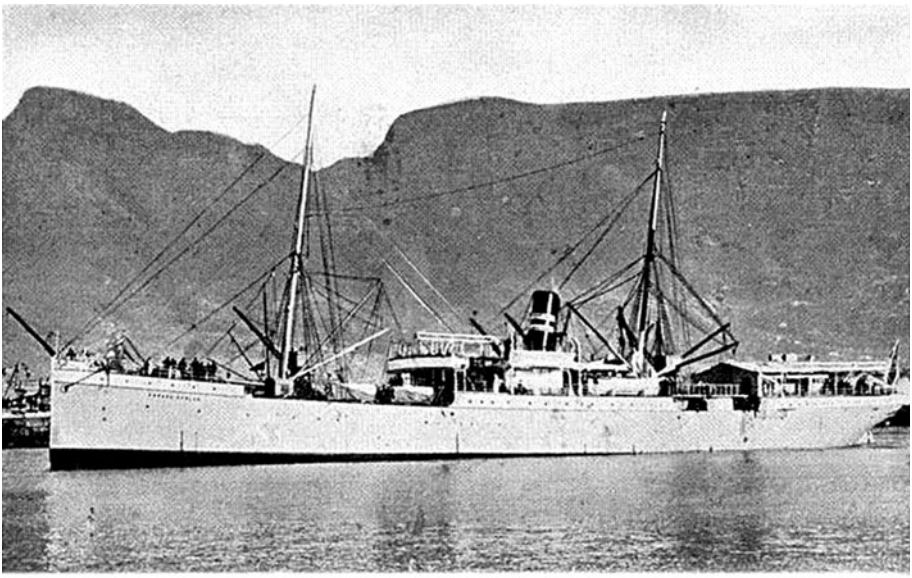

Fig. 9 *Eduard Bohlen II*: historic photo in Cape Town Harbor, 1909 (http://www.histarmar.com.ar/ArchivoFotosGral-2/BuquesSudAfrica-EH.htm, accessed April 2012)

Fig. 10 Passengers of the *Eduard Bohlen II*. Photo: Bureau of the Royal Tropical Institute in Amsterdam. Catalogue no.: Album 1643. © Photo: Bureau Royal Tropical Institute in Amsterdam (http://gcdb.doortmontweb.org/collections/Muller_KIT/ppages/ppage1.htm, accessed April 2012)

During the German Colonial Wars all Herero living in Swakopmund, and those captured by troops along the railway line towards Kanbib, were incarcerated aboard *Eduard Bohlen II*, which at the time was anchored at Swakopmund. As this was the outbreak of the war,

German colonial officials were not sure how many prisoners could be accommodated in future years and subsequently offered the male prisoners to a South African mining contractor named Hewitt as labor for the South African mines. Hewitt accepted the Herero prisoners, and argued that as the men were already embarked and at sea, there was no need to pay customs duty nor 20 German marks per laborer as demanded by the Germans. It was a successful evasion of the usual customs duties for mining manpower. On 20 January, 1904, *Eduard Bohlen II* sailed for Cape Town and the mines of the Rand with 282 prisoners on board (Gewald 1995, 1999:26–27).[1]

This is a small vignette of the larger story about the Colonial Wars in Namibia. The files of the magistrate court in Lüderitz make ample mention of Herero prisoners of war, men as well as women, who had been put to work on the construction of a railway line from Lüderitz to Aus. Records also mention active resistance to mistreatment (Gewald 1995, 1999:28–29; Luderitz Magistrate's Court Records). As the war continued, large numbers of refugees fled to the comparative safety of the British territory in Walvis Bay. According to German intelligence reports, the postman operating between Swakopmund and Walvis Bay acted as a go-between for labor recruiters stationed in Walvis Bay and working on behalf of the South African mines. Between 1905 and April 1908, when the German prisoner camps were finally abolished, hundreds of prisoners fled Swakopmund.

Wrecking Event

After use as a prison ship, *Edward Bohlen II* returned to passenger service combined with delivery missions of diamond mining supplies to the encampments. A lively firsthand account of the wrecking of *Eduard Bohlen II* is derived from passenger Ferdinand Howaldt. On 4 September, 1909, the ship left Swakopmund port at 10 pm and headed south towards Spencer Bay. The passengers enjoyed an uneventful but foggy night until 6 am when they were awoken by a loud banging and the sounds of straining machinery. The ship had grounded 100 m from shore and began to list as it was pounded by waves (Howaldt 1909:1). Captain Parow ordered an additional anchor to be thrown to prevent the ship from washing further towards the beach, but this proved ineffective as the unrelenting swell pushed *Eduard Bohlen II* solidly aground and the steam machinery came to an abrupt halt as the suction pipe clogged with sand.

After 24 h of being pounded by the waves, Captain Parow informed the weary passengers that they needed to leave the ship. They disembarked using the ship's surf boats and built a camp on the beach among the jackals and hyenas. A party was sent to 10 km inland to the Conception Bay encampment to summon help and in addition, the steamer *Otavi* of the West Africa Line was hailed. The two ships attempted to form a bridge as the high surf thrashed between them. Two African "Kru Boys" and the second mate drowned during this maneuver. The operation proved unsuccessful, but eventually the crew managed to get the baggage and mail through the surf and on shore. These parcels were then

[1] This researcher lists primary sources about Herero Prisoners and the *Eduard Bohlen II* in the Luderitz Magistrates Court records and Swakopmund -NNAW, BSW 7, folio 110, Letter from the Kaiserliches Bezirksamt Swakopmund to the Kaiserliche Gouvernement Windhuk dated 12/2/04; NNAW, BLU 220, SPS 49 Strafprozesssache gegen die Hererofrau Anna NNAW, BLU221, SPS 85, Strafprozessache gegen die Herero Kriegsgefangene Justine, SPS 81 Strafprozessache gegen die Hererofraujohanna & SPS 80 Against a number of runaways NNAW, BLU 28 (Old notation ZD 96-523) Eingeborenenangelegenheiten E lK EingeborenenUnruhen NNAW, BSW 107 (Old notation SD 68-204), Entlaufen von Eingeborenen nach Walfischbay, UA 10/2; ELCIN, V Chroniken 31 Swakopmund RMG, H Vedder.

loaded on to ox carts borrowed from a Conception Bay diamond encampment and hauled back to Swakopmund. On 10 September, the passengers were finally loaded onto the *Otavi* and taken back to Swakopmund after an exhausting week (Howaldt 1909:1).

Documentation of *Eduard Bohlen II*

Photographs taken of the shipwreck over the last 10 years show increased disintegration of the hull covered deeper in sand as the profile crumbles and diminishes. The bow area is almost completely embedded in a sand dune with the stern area scoured from the rudder to the deck, and extending for a third of the overall vessel length (99 m). The guard rails are tangled and twisted, deck beams broken, funnels and masts no longer extent. Diagnostic features like the rudder, bollards, mast and funnel, davit and gear mechanisms are visible. Clearly, *Eduard Bohlen II* is gradually corroding away—sandblasted by the salty, desert winds and coated in sea bird guano. The objectives at the *Eduard Bohlen II* site were to: (1) describe and assess the vessel's condition and site formation processes around the wreckage, (2) create a preliminary plan view site map establishing the general location of the main features on the wreck by taking offsets from a baseline laid from the stern to the bow area, (3) take GPS co-ordinates of the main deck features, (4) photograph diagnostic features like rudder, fairleads, bollards, bulkheads, davits, compass stand, derricks steps, guardrails, anchor deploying gear mechanisms, deck framework, steam machinery, and any disarticulated wreckage in vicinity of the site, (5) create an exterior artistic profile of the

Fig. 11 Port view of the *Eduard Bohlen II* (WUC photograph)

starboard profile, and (6) assess robustness of the structure and identify the main preservation problems (Figs. 11, 12, 13, 14, 15, 16).

Site Formation Processes

There are many factors, natural and cultural, at work in the formation of the *Eduard Bohlen* wreck site as it exists today. All of these factors can be examined using Keith Muckelroy's model for the evolution of a shipwreck. A shipwreck, according to Muckelroy (1978:267), is "the event by which a highly organized and dynamic assemblage of artifacts [a ship] is transformed into a static and disorganized state with long-term stability [a wreck]." The processes involved in this transformation are known as site formation processes, and they can be classified into three types, environmental factors, extracting factors, and scrambling factors (Muckelroy 1978:268). Though Muckelroy worked primarily with submerged wrecks, his definition is applicable to terrestrial wrecks.

Environmental factors for submerged wrecks usually include the depth of the site, direction and strength of currents, substrate material, and movement of the seabed (Muckelroy 1978:270–274). Beached wrecks are affected by similar factors. The wreck site of *Eduard Bohlen II* in the Namib Desert is a notoriously harsh landscape. Environmental factors for this location include strong winds, rapidly changing temperature and humidity, and the movement of sand dunes. Space shuttle photography has shown the Skeleton Coast of Namibia to be one of the most rapidly changing shorelines in the world (Wilkinson et al. 1989). The region is comprised of three coastal strandplains that bow out

Fig. 12 *Eduard Bohlen II* stern port view of collapsed guard rail and rudder (WUC photograph)

Fig. 13 *Eduard Bohlen II* lifeboat davit (photo: ECU)

into the sea: Sandwich Harbor, Walvis Bay, and Conception Bay. Aerial images taken over a period of 15 years have shown the astonishingly rapid development of large sandspits branching off these strandplains. One such sandspit off Sandwich Harbor has been seen to shift "hundreds of meters in the course of a few seasons" (Wilkinson et al. 1989:64). *Eduard Bohlen II*, wrecked on the Conception Bay strandplain not far south of Sandwich Harbor, is impacted by similar geomorphology. In fact, it is possible that an uncharted, rapidly shifting sandspit was the cause of the ship running aground in 1909 and is possibly the reason why the wreck was situated nearly half a kilometer inland by 1973 (Wilkinson et al. 1989) and in 2010 was 339 m inland. Currently, the shipwreck structure presents a sand catchment area and has created a coastal dune. The configuration of the dune reflects the prevailing winds and orientation of the hull. The strong south-west winds have scoured out the stern area and deposited an extensive sandspit extending a considerable distance beyond the bow. At the time of the study the spit ended at S23°59′27.97″ and E014°27′27.52″.

Another environmental factor that impacts *Eduard Bohlen II*'s hull preservation is the Antarctic water of the Benguela Current, which travels north-west along the Namibian coast. During the winter and spring months the current is amplified by the strong southerly winds to create areas of intense coastal upwelling which cause colder temperatures and higher humidity (O'Toole et al. 2001). One of these areas of intense upwelling is located at Conception Bay, near the wreck site. Conversely, in the summer and autumn months, hot dry winds from the east suppress the upwelling, causing temperatures at the coast to rise and the humidity to drop (O'Toole et al. 2001). Prevailing winds abrade the hull and cause

Fig. 14 *Eduard Bohlen II* bow with bollards, fairleads (photo: ECU)

the movement of sand dunes around the wreck. The humidity of the cold winter fog promotes iron corrosion.

The second type of factor affecting site formation of *Eduard Bohlen* is extraction. Extracting filters are processes that remove elements from a wreck site, whether part of the ship's structure or its artifact assemblage. Once environmental factors most affecting the coherence of a site are established, these could then be evaluated in terms of the specific role in creating and modifying the site in the desert (Muckelroy 1978:275–278). One major extracting filter for all shipwrecks is, of course, the actual wrecking process. The wrecking and subsequent abandonment of the vessel no doubt caused the loss of many items from the ship. Historical sources indicate at least two salvage attempts on *Eduard Bohlen II*. The first attempts were made by Herrman Offen, who was in fact a passenger on *Bohlen* when it wrecked (Green 1952). The Offen Salvage Syndicate purchased the derelict vessel from the Woermann Line after the wrecking. Offen then managed to recover a large portion of the ship's furniture, which was sold to a hotel in Swakopmund, and most of the diamond mining equipment, which was sold to the mining company in Conception Bay (Green 1952). The next salvage attempts were made by G. E. Austin, an engineer from Cape Town, who purchased the shipwreck from the Offen Salvage Syndicate in 1919 in hopes that the vessel could be refloated. Austin's plan purportedly involved pumping sand away from the bow so that the ship could be towed back out to sea (Green 1952). Whether or not this plan was ever actually attempted is unknown. There is no historical documentation to suggest that Austin attempted any other salvage operations but it is not out of the realm of possibility (*Namib Times* 1972; Letter from W. Stephen, Dock Superintendent to Messrs Thesen & Coy, dated 17 November 1904; Telegram to Protsec. from Police Decompol., dated 26 July 1918;

Fig. 15 Aerial view of *Eduard Bohlen II* showing deckplan features (photo: ECU)

Telegram to Protsec. from Inspector of Mines, Windhoek, dated 1 August 1918; Letter from Secretary of the Protectorate to John Taylor, Chairman, Southern Seas Salvage; Letter from John Taylor, Chairman, Southern Seas Salvage Company to The Mines Department, Administrator's Office, Windhoek, dated 16 January 1920).

The wildlife that inhabits this region of the Namib Desert represents yet another extracting filter. The desert may be a harsh environment but it is far from lifeless; the waters of the Benguela Current help support animal life of all kinds. Nutrient rich waters attract colonies of Cape fur seals and the seal colonies in turn attract predators such as brown hyenas and black-backed jackals (NACOMA 2007). Participants in the 2010 ECU archaeological expedition did not to encounter any live hyenas, though their presence was evident from a partially decomposed carcass beneath the stern. The jackals made an appearance every day of the project and were known to abscond with materials such as tape measures, notebooks, and bandanas (Fig. 17). They are without doubt bold and curious creatures more than capable of removing artifacts from the shipwreck site. Large flocks of Cape cormorants and other sea birds roost on the wreckage. Individual birds and bird carcasses were noted in the area. Entire flocks were not observed on the site (presumably they were deterred by the human presence during the project) but cormorants are known to breed on "islands and man-made platforms" (NACOMA 2007). Further evidence supporting habitation by birds is the fact that the entire ship is covered in a thick layer of guano.

The third type of factor affecting *Eduard Bohlen II* site formation is scrambling. Scrambling agents are the processes by which elements from a shipwreck are disarticulated in a way that can confuse archaeological interpretation (Muckelroy 1978:278–289).

Fig. 16 Recording on the deck of *Eduard Bohlen II* (photo: ECU)

In many cases the three categories of site formation factors overlap with one another. On the *Bohlen* site, for example, a jackal that carries artifacts away from the wreck is an extracting factor, but the jackal could also be a scrambling agent if it moves artifacts or introduces new material to the site. The impact of jackals on a site on land could be compared to scrambling on shipwrecks under water by crab and lobster (Ferrari and Adams 1990:141–142). Post-depositional human contacts are often major scrambling and extracting agents on wreck sites. This includes rescue missions, salvors, tourists, and even archaeologists. It is virtually impossible for people to encounter a shipwreck without impacting it in some form, even if only slightly. In addition to the previously mentioned salvors and archaeologists, *Eduard Bohlen II* has experienced two other unique forms of human scrambling agents. One of these is the film crew for the 1964 film "Coast of Skeletons" which was partially filmed on site in Conception Bay. According to a newspaper article, one of the final scenes called for "a fictitious blowing up of the old wreck". In order to accomplish this effect, large amounts of explosives were detonated on a nearby dune (*Namib Times* 1964). The explosion would have great impact on the site formation processes. The film crew claims not to have damaged the shipwreck during the filming, but even if this is true, the morphology of the dunes surrounding the wreck were possibly altered (*Namib Times* 1964). The film crew could have also had other scrambling effects such as bringing modern intrusive materials onto the site.

Another unique human scrambling agent was introduced to the site shortly after wrecking event. The ship ran aground near Conception Bay in 1909. Not long after this event, a diamond company set up mining operations at Conception Bay and historical documentation shows that some of the miners actually lived in the wreck remains during

Fig. 17 Jackal off the stern of *Eduard Bohlen II* during recording (photo: ECU)

this time. In *Lords of the Lost Frontier*, Lawrence Green (1952:305) writes, "At one period natives working on the diamond fields lived in the *Eduard Bohlen*'s fo'c'stle, while the manager occupied the Captain's quarters. At night it was strange to see lights gleaming from the port-holes of the ship in the desert." This account is nearly mirrored by an excerpt from *Swept by Wind and Waves* by Speight (1956:117) who claims, "For years after (1920), the wreck was the home of the diamond mine manager, who lived in the charthouse while the mine laborers occupied the holds. So through the thinning fog shone the ghostly lights of a broken ship, gleaming on year after year, as ships plied well out to sea." Participants in the 2010 ECU project found no archaeological evidence to support these accounts, but that is largely due to time constraints and the nature of the project as a pre-disturbance survey. No sand was moved and no artifacts were recovered during this survey, but it is important for future archaeologists to be aware of this part of the *Bohlen*'s post-depositional history as a potential scrambling agent.

Symbolism of *Eduard Bohlen*

The wreck of *Eduard Bohlen II* is often touted as the icon of Namibia and a symbol of the nation's heritage, and while this is true, not all national stakeholders of that heritage are given equal recognition. The image of a once grand German colonial ship delivering diamond mining equipment and transporting wealthy passengers, beached on a desolate coast, is certainly a stunning image, but there is a strong tendency to romanticize the vessel and the location. Terence Kruger's surrealistic painting of a sunset over the vessel is

intended to show the fleeting life of human invention with the backdrop of the eternal desert. The South African painter Keith Alexander made 13 paintings of the wreck and the Deutsche Africa Linien bought a few for their head office at Hamburg. He loved painting in a blaze of desert sun with iconic animals like the gemsbok in the foreground (*South African Panorama*, November 1985). In 1987 the shipwreck appeared on a commemorative stamp with barrels rolling around it in the surf. A painting of the shipwreck hung in the lobby of the most upscale hotel in downtown Windhoek, the *Kalahari Sands,* in 2006. A Namibian postcard sold in local stores in 2010 shows shipwreck locations in the country including the site of *Eduard Bohlen*. Clearly, shipwrecks are important landmarks and tourist attractions to Namibians (Figs. 18, 19, 20).

Eduard Bohlen II, like many artifacts and sites, served many different purposes over time and the historical and archaeological record incorporates different levels of meaning, some of which may be nationally divisive or reconciliatory. The role of archaeologists is not only to document, interpret, preserve and manage elements of heritage that evoke stakeholder nationalism, but also to explore the mundane, unsavory, and even horrendous aspects. Brief histories of the working life of *Eduard Bohlen II* typically describe its construction in 1890–1891 and its service in the Woermann shipping line delivering passengers, mail, and mining cargo from Germany to Namibia at the turn of the twentieth century. What is sometimes left unstated in these histories is that the beginning of the twentieth century was a bleak time in Namibian history. The German Colonial Wars and the genocide of the Herero and Nama people lasted from 1904 to 1907 (Kustaa 2004). *Eduard Bohlen II* played a role during these tragic events as a prison ship for hundreds of Africans. It is alleged in a war reparation court case that the Woermann Line controlled

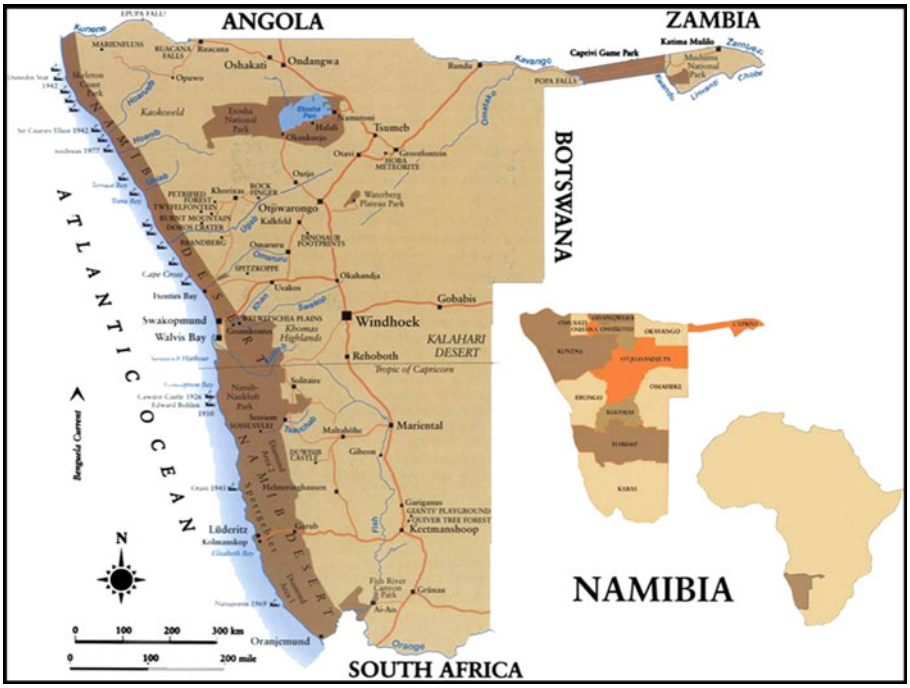

Fig. 18 *Eduard Bohlen II* location shown on a shipwreck postcard of the Skeleton coast

Fig. 19 Commemorative stamp of the *Eduard Bohlen II* shipwreck (South West Africa 1987 40c sg 485. Navicula No 146: 2240. South African Philatelist Jan. 1987. *Blauwe Wimpel* 1987:174)

Fig. 20 Painting by Keith Alexander: gemsbok with *Eduard Bohlen II* in the background

virtually all of the shipping into and out of German South West Africa from 1890 to 1915. It is asserted in a plaintiff's claim that Woermann employed slave labor, ran its own concentration camp, was a critical participant in the German colonial enterprise and that "individually and as a member of that enterprise, Woermann is directly responsible for and committed crimes against humanity perpetrated against the Hereros" (Sarkin 2004). Few events still command such scholarship, emotion and attention after more than a century as the genocide perpetrated by German colonial troops against indigenous people between 1904 and 1908 in what is today Namibia (Kössler 2012:233–238).

In one sense, the shipwreck is a symbol of colonialism and diamond mining logistics, but in another sense it is symbol of historic atrocities and the reasons they should be neither forgotten nor repeated. The wreck of *Eduard Bohlen II* is therefore a monument of

remembrance for those who perished in the war. Monuments to victims of the German Colonial Wars are rare in Namibia, according to Dr. Friedrich Freddy Omo Kustaa (2004), but instrumental, he believes, in promoting a long-awaited sense of multicultural reconciliation. Other levels of meaning for the wreck include themes of capitalism and labor due to its association with the diamond mining operations at Conception Bay. On another level *Eduard Bohlen II* is also symbolic of the everyday lives and culture of the miners and overseers who camped in the wreckage. It is symbolic of a maritime cultural landscape in an inhospitable environment.

Future Work

Recommendations for site management, historical and archaeological research include further detailed recording of the hull structure and an archaeological assessment of *Eduard Bohlen II*'s construction technology and engineering as representative or unique to that period. Investigation might include attention to modifications to the structure as a floating prison, passenger liner and carrier of mining equipment. There is potential for further in-depth historical research in Namibian and international repositories on the role of the Woermann West Africa Steamship Line in the Herero holocaust and contribution to the colonial economy in the early twentieth century.

Local stewards, like WUC, could further monitor in situ corrosion rates and deterioration of historic structures and vessels—in addition to conducting more systematic evaluations and gathering empirical data on the movement of sediment affecting the sites during annual trips to the area. Most significantly, because the *Edward Bohlen II* site is a popular destination for tourists to the Namib Naukluft Park, tour guides should consider providing the public with a more authentic and dramatic historical vignette of this maritime icon of the desert. Interpreting and analyzing the historical messages of archaeological sites like mining encampments and European steamboats, which are perceived primarily as traditional symbols of colonial oppression, are a challenge for promoting sustainable heritage tourism in the Namib Naukluft Park. Therefore, these sites are not attractive assets for government management funding. What authentic, non-commodified meaning can these sites convey about the active role of non-colonials in shaping the economic and industrial history of Namibia? The mariners of the open surf boats, for mining and possibly whaling, were Liberian Krumen or multi-ethnic American whalers. The inclusion of Liberians suggests a more inclusive pan-African labor force in Namibia. The majority of the mining laborers were Owambo contract men (Schneider 2009:192–195).

The role and exploitation of indigenous cultural groups as a labor force was essential to the success of this local and global enterprise and represents a crucial aspect of the interpretation of the layout of diamond mining villages and ship to shore surf boat operations in areas with no harbors. Like slave ships, South African apartheid museums or plantation sites in the American south, these sites are marketable opportunities to put this maritime landscape sensitively on the local and international tourism heritage map with the active participation and representation of indigenous and international stakeholders in the planning process.

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Letter from Secretary of the Protectorate to John Taylor, Chairman, Southern Seas Salvage
Letter from John Taylor, Chairman, Southern Seas Salvage Company to The Mines Department, Administrator's Office, Windhoek, dated 16 January, 1920
Article titled "Meob: The Ghost Town in the Desert" in 1960 issue of the South West Africa Annual, written by Paul Vincent
Summary and excerpt of article in *Namib Times*, No. 299, dated Friday, 25 October, 1964, p 9
Excerpt of article in *Namib Times*, No. 614, dated Friday, 6 March, 1970, p 5. The excerpt states that the wreck of the *Eduard Bohlen* effectively ended Captain Parow's sea career. He then bought a poultry farm outside Cape Town, which eventually turned into the town of Parow

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