### Th.J. Maarleveld

# Underwater heritage management: cultural and legislative perspective

- 1. From accidents to policy
- 2. On the underwater cultural heritage
- 2.1 Legislation and government policy
- 2.2 Three traditions The Mediterranean tradition The northern European tradition The 'prehistoric' tradition
- 3. The necessity of a consistent policy
- 3.1 International alignment
- 3.2 Consistency at the national level

A regional or national policy for heritage management or a specific sector thereof should be deployed on a firmly scientific basis. The underwater heritage is no exception. The environmental and theoretical basis for archaeological heritage management in Dutch waters is subject to research by the author. The present article is an introduction on the European cultural and legislative perspective.

## 1. From accidents to policy

The potential of archaeological sites in wet or submerged conditions has been appreciated from the very start of modern interest in the remains of past cultures. During the Renaissance this interest not only included the architectural aspects of palaces and temples, but encompassed for instance the remains of imperial barges that were found to have foundered in the Nemi Lake (Lehmann 1991). In the late seventeenth century the collection of dispersed antiquities was recognized as a serious corollary of engineering works aimed at canalization and promotion of navigability of for instance the river Tiber. The Dutch engineer Cornelius Meijer devised modern methods to do so (Meijer 1685) (fig. 1). Exactly the same preoccupations did still apply in the early nineteenth century (Gianfrotta 1982; Mocchegiani Carpano 1982) (fig. 2). In the development of archaeology as a serious discipline underwater sites have played a marginal role, but their potential importance has always been recognized.

The most telling example of early, but absolutely serious attention for underwater sites are the Swiss lake-border settlements from Neolithic and Bronze Age date. As soon as their importance was established due to extreme drought in 1853 (Keller 1853), the geologist Count Adolf von Morlot from Geneva even went as far as to inspect a submerged site near Morges with the aid of a then acceptably modern, manpower pumped diving apparatus (Arnold 1986, 25; Martin-Kilcher 1979; Ruoff 1981).

For long, however, systematic attention and care for underwater remains was far beyond the technical means of all but a very restricted group of technical specialists. Archaeological exploration under water has thus been confined to individual actions. In a few instances these had scientific aims, such as the undertaking of the Scottish Reverend F. Odo Blundell in 1908, who borrowed diving gear from the Clyde Navigation Trust in order to investigate the submerged foundations of the ancient artificial island Eilean Muireach (Dixon 1991; Muckelroy 1978, 11). Mostly, however, they just aimed at the collection of artifacts.

Systematic concern about the preservation and exploitation of archaeological sites under water is thus a recent phenomenon. Both the development of 'wetland'research and the fact that the remains of ancient ships and their cargoes and inventories got more and more attention were crucial in this respect. Public concern gradually followed suit. Excellent overviews of early incidents of archaeological diving are given by Bass (1966) and Gianfrotta and Pomey (1980). An assessment of the importance of submerged sites for our understanding of past developments can be grasped from Masters and Flemming (1983) and Coles and Lawson (1987), whereas the archaeological potential of shipwreck-sites is well-argued in McGrail (1987) and in the several collections of articles edited by Reinders (Reinders 1987, 1991; Reinders/ Oosting 1991; Reinders/ Paul 1991).

In the following paragraphs a short interpretation of the recent developments will be given. Research issues (or their absence), technical restraints, legal solutions and varied cultural backgrounds will be reviewed.

#### 2. On the underwater cultural heritage

2.1 LEGISLATION AND GOVERNMENT POLICY

It is only less than fifteen years ago that the Parliamentary Assembly of the Council of Europe, in its 'Recommen-



Figure 1. The fact that the underwater world holds a plenty of antiquities was well understood since the very onset of antiquarianism. So was the notion that their discovery would be corollary to the realization of extensive civil works. The Dutch engineer Cornelius Meijer worked in Italy in the late 17th century. As protégé of pope Innocentius XI he designed and developed all sorts of contraptions to help in the canalization and the promotion of navigability of rivers such as the Tiber and drainage of (for instance the Pontinian) marshes. Judging by this drawing he was well aware that these works would reveal numerous remains of the past (courtesy Accademia Nazionale dei Lincei, Rome).

dation 848: on the underwater cultural heritage', made an urgent appeal to member state governments to seriously concern themselves with a sofar neglected branch of cultural heritage management (Roper 1978). Since then the issue has been seriously considered in most European countries. This happened in quite varied ways. The cultural background varies and the developments sofar had resulted in different policy-bottlenecks in different regions of Europe. Still the impact was that heritage management issues were discussed internationally and that in many cases the approach at a national level was adjusted so as to match the policies elsewhere.

In several countries — the Netherlands included — the terrestrial archaeological legislation was adapted so as to cover under water sites (Kristiansen 1985; Lund 1987; Maarleveld 1983; Monumentenwet 1988). In other countries this had happened earlier (Cederlund/Haasum 1978; Nævestad 1991).

An anomalous situation exists in those countries were maritime and underwater finds are covered by a totally different law than those on land. In France, the early legislation of 1961 has recently been substituted by a new law that still specifically addresses finds in the maritime domain, but which is more in keeping with the policies elsewhere (Loi du 1 Décembre 1989; Décret du 5 décembre 1991). Proposals in the United Kingdom to supersede the most awkward systematics typifying the impromptu Historic Shipwreck's Act of 1973 by regulations that would further a more significant protective policy (Joint Nautical Archaeology Policy Committee 1989) have not (as yet?) met with success. Nevertheless, even in the United Kingdom some movement towards a seriously archaeological approach of the underwater cultural heritage can be observed, allbeit in administration rather than legislation. For the first time the same government department is responsible for policies regarding sites above and below water, whereas the Royal Commission on the Historical Monuments of England, one of the organisations bestowed with their implementation has recently begun the extension of the National Archaeological Record for England to include underwater sites.

In fact the English situation as opposed to that in Mediterranean and Scandinavian countries is the outstanding illustration that underwater archaeology has roots in fairly diverse traditions. In its primary development it owes as much to outside influences as to the gestation of archaeology. With gross oversimplification we can recognize three distinct lines of development on the European scene. Two of these are regionally bound, the third has overlaps with both and is less specific in that it hardly differs from mainstream continental archaeology and archaeological heritage management. All three traditions did gain a lot of momentum since the Cousteau/Gagnan invention of the aqualong at the end of World War II. All three will roughly be outlined hereafter.

#### 2.2 THREE TRADITIONS

#### 2.2.1 The Mediterranean tradition

Of the three European traditions in underwater archaeology the Mediterranean one is the first obvious example as we should consider that area as the cradle of modern-day diving. Indeed it is diving and idolation of the

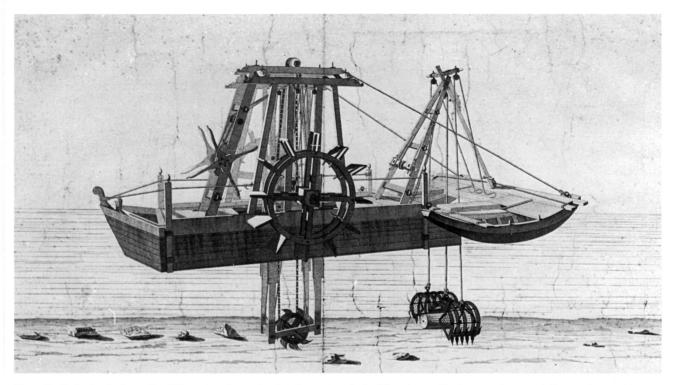


Figure 2. By the beginning of the 19th century the scale of works -and again the Tiber draws attention- was increased. So was the machinery used for excavation and the collection of antiquities (courtesy Istituto Nazionale d'Archeologia e Storia dell'Arte, Rome).

skills involved that determined the first stages of development in this tradition. More significantly though, it was vital for the discipline that sponge-divers in clumsy standard-diving outfit had extensively surveyed the ridges and seaboard up to quite significant depths ever since the late 19th century. More or less unawaredly they collected a body of aggregate topographical knowledge which proved essential for archaeology later on. Occasionally they brought up archaeological items. In a few instances (Antikythera, Mahdia) this led to purposeful actions in which archaeological sites were systematically cleared of their contents under the authority of archaeologists (Bass 1972; Casson 1939; Fuchs 1963; Merlin 1930; Weinberg et al. 1965). The actual on-site work was carried out by divers with their magic skill, whereas the responsible archaeologists stayed well clear of the water and studied the raised works of arts.

Exactly the same setup was applied as soon as the aqualong set the diver free of his more cumbersome equipment. Capt. Jacques-Yves Cousteau incorporated archaeology in his promotion of diving (Benoît 1952; Cousteau 1954). The archaeologist, however, was not supposed to do the fieldwork. He was supposed to study the raised items in an erudite way (Benoît 1961; Frondeville 1965). Their collection as well as on-site observations were better left to the diving supermen (fig. 3). With the best of intentions these evidently messed things up quite a bit, out of sheer unfamiliarity with basic practical knowledge of archaeological stratigraphy (Harris 1989) or the nature of archaeological observations (Schiffer 1976). The dismantling of the Grand Congloué site, where later analysis showed two ancient shipwrecks to have been superimposed is a good example (Long 1987).

As a result of this approach diver's lore in the Mediterranean context has been stuffed with amphoras as one of the assets of the deep. In a more general sense the awareness that 'the silent world' is to be regarded as a museum (*cf.* Cousteau 1953, 1954), with huge stores opening up new vistas on antiquity was established.

It was only the next step that was made by archaeologists. Dissatisfaction with the procedures sofar (Lamboglia 1952) as well as the assessment of the importance of a meticulously scientific approach led to the establishment of the 'Centro Sperimentale di Archeologia Sottomarina' in Albenga in Italy in 1958 and its subsequent activities (Lamboglia 1959; Pallarés 1983). More influential



Figure 3. The beginnings of archaeology under Mediterranean waters saw a strict division of labour between divers who did the job and archaeologists that were supposed to comment on the findings in a erudite way. Divers in the mess of the 'Calypso' swap tales of undersea salvage at the occasion of the Grand Congloué excavation, as the original caption has it. Occasionally one of them fed an octopus into the suction pipe to startle scientists at the filter end, but they were good chaps and worked hard (courtesy The Cousteau Society).

internationally, however, has been the work of the team centered around George Bass (Bass 1967; Bass/Van Doorninck 1982). It is one among many of Bass's great merits that he broke through the he-man-like aura of the diver. He firmly established the principle that like everywhere else archaeological excavation under water is to be carried out by trained archaeologists for whom the additional — technical — problem of doing research in an underwater environment is no excuse to proceed in any less scrupulous way (fig. 4). One of his renowned statements is that it is easier to teach an archaeologist to dive than to teach a diver to be an archaeologist (*cf.* Bass 1966, 15-17).

The early diving activity in the Mediterranean and the incidental recovery of bronzes and statues by fishing had made the respective governments well aware of the fact that a new area featuring important cultural heritage — major works of art amongst it — had come within reach. Legislative and administrative measures were taken in view of the new developments. Of course these would be in line with the regional policy-tradition. All Mediterranean countries had suffered a stage of antiquarianist archaeology which in part can best be described as a stage of wholesale looting. As a consequence the governments understandably proceeded with very restrictive legislation. Research was confined to strict rules and academic principles. Institutions for control were established.

In many respects government interference has had very positive effects. The Mediterranean tradition of archaeology under water has been firmly established in Turkey - where much of Bass's activity was and is deployed - in Italy, in France and in Spain ever since the onset of the sixties (DRASM 1986; Gianfrotta/ Pomey 1980; Martin-Bueno 1985; Mocchegiani Carpano 1982; Morcos 1986; Pallarés 1983). More recently Greece could be added to the list (Tsouchlos 1990). The strict regulations do, however, have less desirable side-effects as well. They certainly contributed to the alienation of the ever growing number of divers, sports-divers, tourist-divers of the general cause for which these regulations were devised. On the other hand the reckless activities of looting 'clandestini' feeding an ever hungry antiquities market and thereby destroying the integrity of ever so many Mediterranean sites in and out of the water leaves very little alternative but to try and suppress them.

In summary we can typify the Mediterranean tradition of underwater archaeology by the following characteristics: – comprehensive survey

- comprehensive survey
- repressive protective legislation
- a sharp division between archaeologists and 'clandestini'
- thirty years of significant archaeological excavations.

#### 2.2.2 The northern European tradition

In northern Europe the situation is quite different from that along the Mediterranean. In the first place there is no sponge or other crop that is collected by divers, so very little undersea landscape has been surveyed through direct visual observation prior to the adoption of diving as a sport. Traditionally governments have been less preoccupied with looting and export of archaeological material. In the antiquarian stage this region was importing rather than exporting antiquities, which for instance resulted in significant national collections of Mediterranean material.

Diving in northern European waters has traditionally been confined to localized jobs of construction and salvage carried out by a relatively small group of professional divers. It is they who more or less set the scene. Apart from dealing with the salvage of recently foundered vessels they also regularly looked into older sinkings. Whenever it was documented that a ship with a salvagewise attractive content had sunk somewhere and had not previously been worked or salvaged they went to great effort to try and pinpoint this particular wreck in order to procure themselves with its commercial assets (Van der Hidde 1943; Van der Molen 1970). This course of action is still of major influence. When the documentary sources seem reliable salvage firms will — if possible and legally feasible concern themselves with remains of significant age (fig. 5).



Figure 4. The notion that archaeological excavation is first and foremost to be carried out by archaeologists was strongly promoted by George Bass in the sixties and the seventies. It was not so much the fact that he adapted excavation techniques to suit underwater conditions, but the fact that he brought archaeological thinking down there where the primary archaeological observations can be made, that was to be of vital importance. Fieldwork is done scrupulously. The technical problems to do so are just a hurdle to leap, in the partial excavation of the Hellenistic Shipwreck at Serçe Liman as anywhere else (Courtesy Institute of Nautical Archaeology).

In the early stages of development the borderline between salvage and archaeology has insofar been diffuse that it was mostly through salvage-actions that the archaeological potential was opened up. Antiquarian interests started to accompany the commercial ones or even to supersede these. In a way the development is similar to that which mainstream archaeology went through about a century earlier. The people concerned went into more and more archival research in order to track down attractive historical wrecks (*e.g.* Franzén 1961; Kist/Gawronski 1983; McKee 1982; Sténuit 1977; Wignall 1982).

In contravention of Dr. Bass's dictum referred to above, we see quite a few divers turned 'archaeologist' or historical researcher on the northern European scene. They started to consider their activities as more and more archaeologically meaningful. In the field the emphasis has been on search-techniques and artifact-retrieval, whereas in many instances little contemplation was given to stratigraphy and archaeological context. Nevertheless such actions have added to our aggregate knowledge by producing secondary archaeological data that can be derived from artifact collections (*e.g.* Kist/Gawronski 1980; Martin 1979; Pol 1989). The fact, however, that the study of artifact collections from crude or uncontrolled salvage operations can yield significant results (Kleij in prep.; Gawronski *et al.* 1992) is often presented as an implicit excuse for the continuation of outdated practices (Jörg 1986; Mörzer Bruyns 1987).

Both in its more positive and its negative manifestations the northern European tradition has very specific characteristics. For one thing all attention is confined to the remains of larger ships from periods which are welldocumented. The historical documents are the basis on which the search for wrecks is started. Also there is a

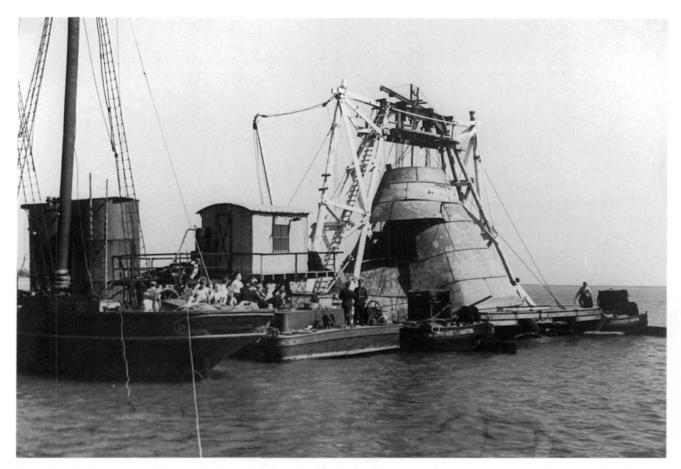


Figure 5. In Northern Europe diving used to be construction diving or salvage. Salvors never shunned wreck of considerable age. The firm of G. Doeksen & sons of Terschelling addressed the remains of hms. Lutine of 1799 in the late twenties and early thirties (courtesy Hille van Dieren).

strong bias towards naval ships and ships involved in particularly big commercial enterprises or particular historic events: ships of the Spanish Armada, ships of the East India companies, ships of the respective royal or republican navies.

Whereas evidently we can observe some nationalistic pride in the way in which the underwater cultural heritage is protected around the Mediterranean, nationalistic feelings are particularly paramount in the highlights of the north European exploitation of the underwater cultural resource. From that perspective it is hardly accidental that there seems to be more emphasis on display than on research.

With its roots in salvage the consideration of legal issues in this tradition has been concentrating on rights and ownership concerning specific wrecks rather than on the general issue of protection of cultural heritage in public law (Agreement between the Netherlands and Australia concerning Old Dutch Shipwrecks; Korthals Altes 1973; Maarleveld 1983; Protection of Wrecks Act 1973). Although it is evident that this tradition has been as influential in the Caribbean and elsewhere it is denoted as northern European for two reasons. All over the world this approach can preponderantly be observed in relationship to the remains of western-colonial shipping and trade (*e.g.* Allen/Allen 1978; Daggett/Shaffer 1990; Earle 1979; Mathewson 1986; Sténuit 1979). On the other hand it is in northern Europe that the tradition has its more positive and prestigious examples: Wasa 1628, Mary Rose 1545, Amsterdam 1748 (Gawronski 1990; Kvarning 1984; Marsden 1974; Rule 1982; Soop 1986) (fig. 6).

In summary we can typify this second tradition of underwater archaeology by the following characteristics:

- a historic approach, where the documentary sources dominate what to look for in the archaeological record
- an approach in which to search for a particular wreck is seen as more meaningful than the survey of other, as yet unidentified sites



Figure 6. The localization and recovery of the Wasa is the outstanding example of the Northern European approach to historical salvage in its more positive manifestation (courtesy Maritime Museum and Warship Wasa, Stockholm).

- a legislative approach based on rights as opposed to responsibility
- a sliding scale of commercially and/or academically interested parties
- emphasis on display rather than on research.

#### 2.2.3 The 'prehistoric' tradition

Side to side with these two traditions of approach of the underwater cultural heritage, the one different from the other and each with its own merits and assets we can discern a third tradition which has its background in regular European pre- and proto-historic archaeology and which has its exponents both in Scandinavia, along the shores of sheltered waters in the British Isles and in the up-mountain lakes in the Alps, notably in Switzerland (*e.g.* Andersen 1985; Arnold 1986; Billamboz/Schlichtherle 1985; Bocquet 1979; Crumlin-Pedersen 1984; Dixon 1982, 1991; Ruoff 1981).

This underwater archaeology is just the logical extension of the European tradition of archaeological field-research beyond the limits set by the waterline (fig. 7). On the one hand archaeology has learned to cope better and better with waterlogged sites under the groundwater table through draining, on the other it has learned to break the water surface where draining is either impossible or relatively expensive (fig. 8). As referred to above this approach goes as far back as the realization of the importance of wetlandsites with Count Adolph von Morlot and the date of 1854 as a significant starting point.

As in land archaeology the contribution of serious amateur archaeologists is fairly significant. Even though the tradition has high standards of archaeological professionalism it has not alienated the casual amateur researcher. It is notably in that respect that this third tradition is different from the Mediterranean one. It also stands out from the more historically oriented north European tradition in several aspects. It may not be the most conspicuous tradition in underwater-archaeology in that it has no wish and no need to distinguish itself from archaeology as



Figure 7. The logical extension of the European tradition of archaeological field-research beyond the limits set by the waterline. Paul Vouga uses a three meter deep caisson for test excavations at the late Bronze Age settlement of Cortaillod in the spring of 1925(courtesy Archives du Musée Cantonal d'Archéologie, Neuchâtel).

pursued on the basis of field research in the dry, but it might well turn out to be the most significant of the three.

One thing is very clear in its approach and that is that: underwater archaeology is archaeology or it is nothing (freely rendered from Willey/Phillips 1958, 2; *cf.* Binford 1962). In line with the mainstream of archaeological fieldstudies in Europe this third tradition can be typified by the following characteristics:

- a geographical, ecological and stratigraphical approach in field studies
- a comprehensive geographical approach in protective legislation
- a significant contribution by non-vocational archaeologists.

#### **3.** The necessity of a consistent policy

3.1 INTERNATIONAL ALIGNMENT

For reasons of simplification three general approaches to the underwater cultural heritage were presented above: the one more repressive, the second more outspoken and the third more unassuming. In pursuance of Recommendation 848 the Council of Europe has promoted the alignment of all approaches throughout Europe. To this end the Division for Higher Education and Research has organized several international courses in the conservation of the 'underwater, nautical and maritime heritage'. More consequential, however, was the attempt to align protective policies in the respective countries through the drafting of a Convention on the Protection of the Underwater Cultural Heritage. The importance of such an alignment can not be overstressed. It is of especially great consequence for the excrescences of the second tradition distinguished above.

Divers turned archaeologists or considering themselves as such who try and localize shipwreck sites that they consider relevant on the basis of historical documents are not motivated or restrained by geographical considerations or responsibilities. They will move from one area to another, sometimes honestly motivated by a specific research theme, more often, however, by the accidental accessibility of a site in terms of both infrastructure, legal restrictions and political climate. The only way to coach their activities or at least their standards, the only way, in other words, for archaeological activities under water to profit from 150 years of archaeological development and the only way to protect the underwater cultural heritage from the pitfalls of antiquarianism from which its on-land counterpart suffered so much, is to do so in international cooperation.

This of course is easier said than done. It is quite clear that the second tradition with its particularistic and nationalistic bias is the anomaly but even to align the Mediterranean and northern European approaches to protection and research takes a lot of counselling. Nevertheless 1985 saw the completion of a draft for the convention on the protection of the underwater cultural heritage to the principles and wording of which the delegations of the respective member states could subscribe (CAHAQ 1985). It is only for rather technical — all be it essential — political reasons that the convention has not as yet been opened for signing and ratification. The question on which the convention failed is under the authority of what concept of international law a coastal state can interfere in all sorts of activities in order to further the research and protection of the underwater cultural heritage beyond the shore-line.

The most restricted option (acceptable to all) is the concept of the TERRITORIAL SEA, where the coastal state exerts full jurisdiction. Its width is now usually set at 12 nautical miles (*cf.* Wet grenzen Nederlandse territoriale zee).

An alternative is to extend the jurisdiction of the coastal state over a CONTIGUOUS ZONE, if declared, under the juridical fiction formulated in Article 303(2) of the United Nations Law of the Sea treaty of 1982 (hereafter referred to as UNCLOS 1982). A contiguous zone may extend beyond the territorial waters up to a maximum of 24 nautical miles from the baselines from which the breadth of the territorial waters is measured (UNCLOS 1982 Art. 33). Under this option, that was formulated in the final draft of the convention, a strip of coastal seabottom, 24 nautical miles wide, may be administered under the convention.

To tune the convention completely to the aforementioned Article 303 in the General Provisions of UNCLOS 1982, as was done in the draft convention, leads to a somewhat crooked solution one might argue. The reason is that in itself that article is not at all particularly crisp and clear. It is a compromise on the basis of several very different proposals at the 1980 UNCLOS meeting, reflecting different traditions in the approach of the underwater cultural heritage as well as different approaches to control over the marine environment (Platzöder 1987, 299-303). It deals with 'objects' rather than sites. It emphasizes the control of traffic rather than of excavation. It even consolidates customary salvage practice, although it specifically refers to 'other international agreements or other rules of international law regarding the protection of objects of an archaeological and historical nature'. Watters (1983) is right in his opinion that its inclusion in the UNCLOS treaty is an impediment for progress in international heritage management.

As a basis for the implementation of the European convention the concept of the contiguous zone was and is unacceptable to one of the Council of Europe memberstates: Turkey. Instead Turkey promotes a third option, the concept of the CONTINENTAL SHELF, a morphologically defined zone to which coastal states claim varying degrees of limited control. Others, such as Norway would (while not opposing the UNCLOS-supported concept of the contiguous zone) be in favour of ranging heritage management under yet another concept, that of the EXCLUSIVE ECONOMIC ZONE, a zone stretching up to 200 nautical miles from the littoral in which coastal states may claim exclusive rights of exploitation of natural resources.

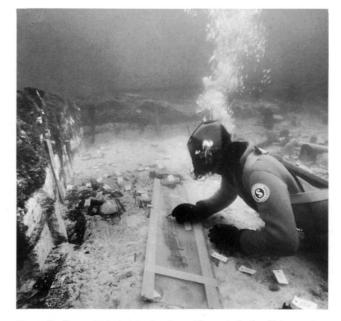


Figure 8. For prehistoric lake-border settlements in the Alpine region the decision to undertake fieldwork under water or in drained conditions has gradually become a management decision as any other: what is the best or cheapest solution to safeguard archaeological information? If that seems to be excavation, draining or underwater work both have their assets and limitations. Stratigraphical excavation of submerged sites as at Kleiner Hafner near Zürich is certainly a viable option (courtesy Baugeschichtl. Archiv Stadt Zürich/Büro für Archäologie).

Norway is strongly urging North Sea states to declare an EEZ and is an ardent proponent of extending the jurisdiction of coastal states.

The discussion about an encompassing protection of the European or the world's maritime and submerged heritage is a most complicated one. Sharing responsibilities between nations means sharing of rights and the impact thereof on economic, political and strategic relations tends understandably to easily overrule any initiative in this field. On the other hand the international developments in the protection of the natural heritage show international regulations such as the Convention on the Conservation of European Wildlife and Natural Habitats and the Oslo and Paris Conventions or even declarations of intent such as Article 123 of the Law of the Sea (UNCLOS 1982) to be worthwhile (Bos 1990; see also below).

In this light the consultations on a European convention have had their effects, even though the problems referred to above did sofar arrest progress: the 1985 draft does exist and it functions as a unifying force as it strongly influences policy development in many states. Moreover, the (revised) European Convention on the Protection of the Archaeological Heritage (that was opened for signature on january 16 1992) for the first time specifically mentions underwater sites (Art. 1, third entry). In order to circumvent the complications of defining the area of application it elegantly deals with protection of the archaeological heritage wherever a contracting state has jurisdiction (Art. 1, second entry under iii). The general principles it sets out will possibly be applicable over the largest possible area by the simple omission of a statement on what kind of jurisdiction is meant.

3.2 CONSISTENCY AT THE NATIONAL LEVEL The process of achieving more alignment in regulations internationally is reflected at the national level. Serious attention for the underwater cultural heritage is recent everywhere and it has proved difficult to develop consistent policies, especially in those countries that display more than one of the three traditions provisionally defined above.

In protective policies legislation is a major tool and as referred to above several countries saw the inclusion of some sort of protection of underwater finds and sites in their national legislations over the last few decades. Some states such as Norway, Denmark, the Netherlands and France have adapted their national legislations since 1985 and have thus been able to take the draft convention into consideration. Denmark in particular has adopted many of its principles, including the application of the contentious concept of a contiguous zone (Lund 1987).

The Dutch law of 1988 (Monumentenwet 1988) is less elaborate. It sets out the principles of research and management. Collaboration of the general public is sought in the general obligation to report any discovery which one 'might reasonably suspect' to be both at least 50 years old and 'of general interest because of its esthetic value, its scientific value or its (cultural-) historical value' (Art. 47). Sites are under a blanket protection in that all activities with the aim of prospection or recovery of items that comply to that definition in which the soil is (even lightly) disturbed are considered to be excavation, whereas excavation is the prerogative of (a limited number) of authorized academic or governmental archaeological institutions (Art. 39). The authorization is granted by the Minister of Culture on advice of the Heritage Council and is dependent on several criteria such as staffing, facilities and continuity in funding (Art. 40 and Wet Raad voor het Cultuurbeheer). An even more rigid protection can be given to a selected number of registered sites of proven importance, banning all on-site activities (even those of archaeologists) or rather subjecting them to a most restrictive system of specific licences (Art. 6 & 7, resp. 11-14 & 17-21).

As a LEX SPECIALIS the Monumentenwet 1988 overrules other regulations. It does not interfere in private law other than determining the ownership of finds from excavations (Art. 43). Whatever the private law position of a site, the regulations of the Monumentenwet do apply. It applies in full to the entire Dutch territory, including the bottom of the territorial sea. Beyond the limits of that zone were the Netherlands have limited jurisdiction over the Netherlands sector of the continental shelf it can analogously be applied in connection with concession- and license-bound activities in which the seabottom is stirred (Josephus Jitta 1986; ICONA 1990; Maarleveld 1983).

In the Netherlands thinking and developments regarding underwater archaeology are strongly influenced by the second and third traditions defined above. This dualism has been particularly evident in the incidents that led to the political decision to consistently apply heritage legislation to wrecksites at sea in 1985 (Maarleveld 1993). It can be observed in many policy-discussions and debates (Brand *et al.* 1987; Donker 1987; KNAW 1985; Reinders 1986). The legislative approach, however, is unequivocal.

Legislation is a fundamental tool for the deployment of a meaningful policy. Nevertheless, it is only one of the conditioning starting points. The environmental conditions and the theoretical framework or frameworks which apply to our dealings with the past are at least as important. In this troika the environmental basis has great impact on both others. The theoretical basis and the legislative solutions do mutually affect each other. It is on their interaction that a consistent policy for the management of the underwater heritage should be formulated. Although regional differences will result it is only by allowing for those solidly founded differences that consistency can be attained. (manuscript closed march 1993).

#### Legal texts and agreements mentioned in the text

- Wet grenzen Nederlandse territoriale zee, stb. 1985/129.
- United Nations Convention on the Law of the Sea, Jamaica, 20th April 1982.
- Monumentenwet 1988, stb. 1988/622.
- Wet Raad voor het Cultuurbeheer, stb. 1989/348.
- Loi du 1 Décembre 1989, 89-874.
- Décret n° 91-1226 du 5 décembre 1991.
- Agreement between the Netherlands and Australia concerning Old Dutch Shipwrecks, The Hague, 6<sup>th</sup> November 1972.
- Protection of Wrecks Act, July 18, 1973.
- Convention on the Conservation of European Wildlife and Natural Habitats, Bern, September 19, 1979.
- Oslo Convention, February 15, 1972, Convention for the prevention of marine pollution by dumping from ships and aircraft.
- Paris Convention, June 4, 1974, Convention for the prevention of marine pollution from land-based sources.
- (revised) European Convention on the Protection of the Archaeological Heritage, Malta, January 16, 1992.

TH.J. MAARLEVELD – UNDERWATER HERITAGE MANAGEMENT

# references

Allen, G. D. Allen	1978	The guns of the Sacramento, London.
	1978b	Clive's lost treasure, London.
Andersen, S.H.	1985	Tybrind Vig. A preliminary Report on a Submerged Ertebølle Settlement on the West Coast of Fyn, <i>Journal of Danish Archaeology</i> 4, 52-69.
Arnold, B.	1986	<i>Cortaillod-Est, un village du Bronze final</i> , 1. Fouille subaquatique et photographie aérienne (Archéologie neuchâteloise, 1). Saint-Blaise.
Bass, G.F.	1966	Archaeology under water, London.
	1967	Cape Gelidonya: A bronze age shipwreck, <i>Transactions of the American Philosophical Society</i> , New Series vol.57, part 8, Philadelphia.
	1972	Eighteen Mediterranean wrecks investigated between 1900 and 1968. In: UNESCO, Underwater archaeology a nascent discipline. Paris, 35-52.
Bass, G.F. F.H. van Doorninck Jr.	1982	Yassi Ada, Volume I, A seventh-century Byzantine Shipwreck. College Station.
Benoît, F.	1952	L'Archéologie sous-marine en Provence, Revue d'études Ligures XVIII, 3/4, 237-307.
	1961	L'épave du Grand Congloué à Marseille, Supplément à Gallia XIV.
Billamboz, A. H. Schlichtherle	1985	Pfahlbauten - Häuser in Seen und Mooren. In: Landesdenkmalamt Baden-Württemberg (ed.), Der Keltenfürst von Hochdorf. Methoden und Ergebnisse der Landesarchäologie, Stuttgart, 249-266.
Binford, L.R.	1962	Archaeology as Anthropology, American Antiquity 28, 217-225.
Bocquet, A.	1979	Lake-Bottom Archaeology, Scientific American 240, 48-56.
Bos, A.	1990	Bestuur en Beheer. In: P. de Wolf (ed.), De Noordzee. Zutphen, 193-198.
Brand, F.P. P.G.M. Diebels H. Maurits W.F.J. Mörzer Bruijns W. Weber (eds)	1987	Plundering of verrijking van de scheepvaartgeschiedenis? Amsterdam.
CAHAQ	1985	Ad Hoc Committee of Experts on the Underwater Cultural Heritage, Final Activity Report, (CAHAQ(85)5), Strasbourg.
Casson, S.	1939	Submarine Research in Greece, Antiquity 13, 80-86.
Cederlund, C.O. S. Haasum	1978	Marinarkeologiskt Handlingsprogram (samt fornminneslagen (SFS 1976, 442)), Stockholm.
Coles, J.M. A.J. Lawson	1987	European Wetlands in Prehistory, Oxford.

262	ANALEC	TA PRAEHISTORICA LEIDENSIA 26
Cousteau, JY.	1953	The Silent World (with F. Dumas). London.
	1954	Fish Men Discover a 2,200-year-old Greek Ship, <i>The National Geographic Magazine</i> Vol CV/1, 1-36. idem: Het verzonken museum, Den Haag.
Crumlin-Pedersen, O.	1984	Fotevik. De marinarkæologiske undersøgelser 1981 og 1982. In: Länsstyrelsen i Malmö- hus Län (ed.), <i>Pugna Forensis-? Arkeologiska undersökningar kring Foteviken</i> , Skåne 1981-83, Malmö, 7-68.
Daggett, Ch. K. Shaffer	1990	Diving for the Griffin. London
Dixon, N.	1982	Excavation of Oakbrank Crannog, Loch Tay. Interim Report, International Journal of Nautical Archaeology 11 (2), 125-135.
	1991	The history of crannog survey and excavation in Scotland, International Journal of Nautical Archaeology 20 (1), 1-8.
Donker, R. (ed.)	1987	Verslag Symposium Wrakkenregister. Den Helder.
DRASM	1986	Archéologie sous-marine sur les côtes de France. Vingt ans de recherche. Perros-Guirec.
Earle, P.	1979	The wreck of the Almiranta. London.
Franzén, A.	1961	Vasa. Regalskeppet i ord och bild. Stockholm.
Frondeville, G. de	1965	Mahdia. In: J. du Plat Taylor (ed.), Marine Archaeology. London, 39-53.
Fuchs, W.	1963	Der Schiffsfund von Mahdia. Tübingen.
Gawronski, J.H.G.	1990	East Indiaman Amsterdam, Antiquity 64/243, 363-375.
Gawronski, J.H.G. B. Kist O. Stokvis-Van Boetzelaer	1992	Hollandia Compendium, A contribution to the history, archeology, classification and lexicography of a 150 ft. Dutch East Indiaman (1740-1750). Amsterdam.
Gianfrotta, P.A.	1982	Archeologia sott'acqua. Rinvenimenti in Etruria meridionale, <i>Bolletino d'Arte, Supplemento</i> 4, 12-36.
Gianfrotta, P.A. P. Pomey	1980	Archeologia subacquea. Storia, tecniche, scoperte e relitti, Milaan.
Harris, E.C.	1989	Principles of archaeological stratigraphy, London.
Hidde, C.J.M. van der	1943	Bergers. Schetsen uit het Nederlandse bergingswezen, Leiden.
ICONA	1990	DE NOORDZEEnieuwe mogelijkheden. Een beleidsgerichte verkenning van mogelijke gebruiksfuncties van de Noordzee in de toekomst, Utrecht.
Joint Nautical Archaeology Policy Committee	1989	Heritage at Sea. Proposals for the better protection of archaeological sites under water, Greenwich.
Jörg, C.J.A.	1986	The Geldermalsen. History and Porcelain, Groningen.
Josephus Jitta, A.N.A.M.	1986	Strafrecht onder water. In: Koninklijke Nederlandse Oudheidkundige Bond, Verantwoord onder water. Amsterdam/Zutphen, 51-52.

263	TH.J. MAA	ARLEVELD – UNDERWATER HERITAGE MANAGEMENT
Keller, F.	1853	Die keltischen Pfahlbauten in den Schweizerseen, Mitteilungen der Antiquarischen Gesell- schaft Zürich, 9 Abt. 2, Heft 3.
Kist, J.B. J.H.G. Gawronski	1980	Prijs der zee. Vondsten uit wrakken van Oostindiëvaarders. Amsterdam.
	1983	TVliegenthart. Rapport van de campagne 1982. Amsterdam.
Kleij, P.	in prep.	Van Texelstroom VI tot Vogelzand VII, Archeologie onder water, 3e onderzoeksrapport, Alphen a/d Rijn (due 1996).
KNAW	1985	Rapport van de commissie normen onderzoek scheepswrakken. Historisch-Wetenschappelijke Commissie, Koninklijke Nederlandse Akademie van Wetenschappen, Amsterdam.
Korthals Altes, A.	1973	Prijs der zee. Raakvlak van redding, strandrecht en wrakwetgeving. Zwolle.
Kristiansen, K.	1985	Fortidsmindebevaring i Danmark. Status og fremtidsperspektiver, Fortidsminder, 142-164.
Kvarning, LÅ.	1984	The Wasa: museum and museum exhibit, Museum 142, 75-80.
Lamboglia, N.	1952	La Nave Romana de Albenga, Revue d'études Ligures XVIII, 3/4, 131-236.
	1959	Forma Maris Antiqui, Rivista di studi Liguri XXV, 283-319.
Lehmann, L.Th.	1991	Underwater archaeology in 15th- and 16th- century Italy, International Journal of Nautical Archaeology 20, 9-11.
Long, L.	1987	Les épaves du Grand Congloué. Étude du journal de fouille de Fernand Benoît, Archaeo- nautica 7, 9-36.
Lund, C.	1987	Beskyttelse af historiske skibsvrag og fortidsminder på den danske havbund, Fortids- minder og kulturhistorie, Antikvariske Studier 8, 135-150.
Maarleveld, Th.J.	1983	Monumentenwet en Archeologie onder water, Discussiestuk, Rijswijk.
	1993	Aanloop Molengat of lading als aanleiding. In: H.R. Reinders (ed.) Lading en ballast. Groningen, 32-43.
Marsden, P.	1974	The wreck of the Amsterdam. London.
Martin, C.J.M.	1979	Spanish Armada pottery, International Journal of Nautical Archaeology 8, 279-303.
Martin-Bueno, M. (ed.)	1985	VI congreso internacional de Arqueologia Submarina, Cartagena 1982. Madrid.
Martin-Kilcher, S.	1979	Ferdinand Keller und die Entdeckung der Pfahlbauten, Archäologie der Schweiz 2, 3-11.
Masters, P.M N.C. Flemming	1983	Quaternary Coastlines and Marine Archaeology: towards the prehistory of land bridges and continental shelves, London.
Mathewson III, R.D.	1986	Treasure of the Atocha. Sixteen Dramatic Years in Search of the Historic Wreck. London.
McGrail, S.	1987	Ancient boats in N.W. Europe. The archaeology of water transport to AD 1500. London.
McKee, A.	1982	How we found the 'Mary Rose'. London.
Merlin, A.	1930	Submarine Discoveries in the Mediterranean, Antiquity 4, 405-414.
Meijer, C.	1685	L'Arte di restituire à Roma la tralasciata Navigatione del suo Tevere, Rome.

# ANALECTA PRAEHISTORICA LEIDENSIA 26

Mocchegiani Carpano, C.	1982	Tevere. Premesse per una archeologia fluviale, Bolletino d'Arte, Supplemento 4, 150-170.
	1986	Archeologia Subacquea. Rome.
Molen, S.J. van der	1970	The Lutine Treasure. London.
Morcos, S.	1986	De bakermat van de onderwaterarcheologie, UNESCO-koerier 150, 42-45.
Mörzer Bruyns, W.F.J.	1987	Navigatie-instrumenten van de zeebodem. 16e tot 19e eeuw, Tijdschrift voor de Geschie- denis der Geneeskunde, Natuurwetenschappen, Wiskunde en Techniek 10, 263-282.
Muckelroy, K.W.	1978	Maritime Archaeology. Cambridge.
Nævestad, D.	1991	Kulturminner under vann. Vurdering av nye tiltak i forvaltningen. Oslo.
Pallarés, F.	1983	Il ruolo dell'Istituto Internazionale di Studi Liguri nelle ricerche archeologiche sotto- marine, <i>Rivista di studi Liguri</i> XLIX, 202-221.
Platzöder, R.	1987	Third United Nations Conference on the Law of the Sea: Documents, Vol. XII. New York.
Pol, A.	1989	Schepen met geld. De handelsmunten van de Verenigde Oostindische Compagnie 1602- 1799. 's Gravenhage.
Reinders, R.	1986	Maritime archaeological heritage: responsibility and management, <i>R.IJ.P. Werkdocument</i> , 24abw.
(ed.)	1987	Raakvlakken tussen scheepsarcheologie, maritieme geschiedenis en scheepsbouwkunde, Flevobericht 280, Lelystad.
(ed.)	1991	Bouwtraditie en scheepstype. Groningen.
Reinders, R. R. Oosting (ed.)	1991	Scheepsarcheologie: prioriteiten en lopend onderzoek, Flevobericht 322, Lelystad.
Reinders, R. K. Paul (eds.)	1991	Carvel Construction Technique. Oxford.
Roper, J. (rap.)	1978	<i>The Underwater Cultural Heritage</i> , Report of the Committee on Culture and Education, Council of Europe, Strasbourg.
Rule, M.	1982	The Mary Rose, The excavation and raising of Henry VIII's Flagship. London.
Ruoff, U.	1981	Die Entwicklung der Unterwasserarchäologie im Kanton Zürich, <i>Helvetia archaeologica</i> 45/48, 62-70.
Schiffer, M.B.	1976	Behavioral archaeology. New York.
Soop, H.	1986	The Power and the Glory. The Sculptures of the Warship Wasa. Stockholm.
Sténuit, R.	1977	La flûte engloutie. Paris.
	1979	Le Witte Leeuw. Fouilles sous-marines sur l'épave d'un navire de la compagnie hollandaise des Indes Orientales coulé en 1613 à l'île de Sainte-Hélène, <i>Neptunia</i> 135, 3-16.
Throckmorton, P. E.K. Ralph	1965	The Antikythera shipwreck reconsidered, <i>Transactions of the American Philosophical Society</i> , New Series vol. 55, part 3, Philadelphia.

264

265	TH.J. MAARLEVELD – UNDERWATER HERITAGE MANAGEMENT	
Tsouchlos, N.N.	1990	A New Beginning, editorial to Enalia Annual 1989, 2-3.
UNCLOS	1982	<i>The Law of the Sea</i> , Official Text of the United Nations Convention on the Law of the Sea. Final Act of the Third United Nations Conference on the Law of the Sea. Introductory Material on the Convention and the Conference, (ed. 1983) London.
Watters, D.R.	1983	The Law of the Sea treaty and underwater cultural resources, <i>American Antiquity</i> 48, 808-816.
Weinberg, G.D. V.R. Grace G.R. Edwards H.S. Robinson	1965	The Antikythera shipwreck reconsidered. <i>Transactions of the American Philosophical Society</i> , N.S. 55.
Wignall, P.	1982	In Search of Spanish Treasure, Newton Abbot.
Willey, G.R. Ph. Phillips	1958	Method and Theory in Archaeology. Chicago.

Th.J. Maarleveld R.O.B, Afdeling Archeologie Onder water Eikenlaan 239 NL 2404 BP Alphen aan de Rijn

