

Research in The Polish Maritime Museum
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INTRODUCTION

Each museum's basic objective is the collection of historical objects, their protection, conservation, research and providing access to them for society.

During its 45 years the CMM in Gdańsk has collected over 24 thousand exhibits and some 4.5 thousand other objects registered and researched. A couple of thousand further objects originating from its own archaeological research are under way in various stages of conservation, and when the process is successfully completed or they are possibly reconstructed, they will be transferred to the museum's appropriate department.

The biggest collection in the Tri-city of Polish and foreign publications on maritime matters, comprising over 17 thousand books and 29 thousand journals, is a great support for any research in the field. The reading room at the CMM library is open to the public.

Also impressive are the collections of the CMM Documentation Department, where we can find an Archive of People of the Sea initiated by Professor Bolesław Polkowski and the CMM Friends Association. Today there are entries there on 2537 people. Members of the SIMP Ship Section participated in establishing and developing the Archive of Polish Ship Constructions (it includes 1840 archive entries). Other collections developed since the very beginning of the Museum are: the Archive of Written Acts (4176 entries), the Photography Archive (10,469 photographs), the Cartographic Archive (1549 pieces.) and the Mechanic Archive (373 pieces). The Department also collects documents on the history of the Museum. The collections are made available to researchers upon their presentation of the subject of their research and signing all the necessary guarantees (mainly concerning observing the Act on personal data protection).

UNIQUENESS AND SUBJECT OF THE RESEARCH

Museum research may be done only by adequately qualified personnel. Unfortunately, no Polish university develops human resources for technical museums, including of the maritime profile. This is why maritime experts are very seldom employed at the CMM — most of the staff is made of people who wish to learn more about the maritime field and perfect their knowledge in a chosen area. Exceptional cases are several graduates of underwater archaeology at Mikołaj Kopernik University in Toruń employed in CMM. Best represented in our institution are graduates of the faculty of history with museums as a special subject. Only after a couple of years of self-development may historians acquire the qualifications necessary for maritime museum staff.

SCIENTIFIC RESEARCH IN THE CENTRAL MARITIME MUSEUM IN GDAŃSK

The foundation of the museum research is study on exhibits necessary for registering cards of the objects. Recognition of common features of object groups, defining their uniqueness, provides enhanced knowledge which in turn is the basis for development of scenarios of issue exhibitions, as well as catalogues

concerning collections and exhibitions, papers and various forms of publication. The results of scientific studies also define directions for the collection's development.

Having permanent staff in CMM at the end of the 90's enabled development of the scope and subject area of the undertaken research studies. At present the research is being carried out within the following areas: maritime museum, history of shipbuilding, history of sea and river navigation, marine and coastal cultural heritage, marine painting, the history of folk boat building, nautical archaeology, conservation of antiques excavated from the sea and forms of museum education.

CMM is famous of its pioneering publications on the study results concerning boat and ship building. They were launched by the first Museum Director, P. Smolarek, Ph. D., who focussed mainly on early Middle Age Scandinavian and Slavic boat building. After a series of articles, he initiated with his monograph "The collection of Scandinavian boatbuilding antiques" in 1963 a publishing series "Undertakings of the Maritime Museum in Gdańsk". The second research line started in 1973 by J. Litwin, Ph. D. Eng., and concerned Polish folk boat building and Pomeranian shipbuilding in the Middle Ages. Systematic research work in Poland resulted in registration of the folk boatbuilding antiques, and the selected boats filled exhibition halls in the Fishery Museum in Hel and in the Vistula River Museum in Tczew.

Some years ago the CMM started studies of dug-out boats coming from archaeological excavations which resulted in the production of a large catalogue developed by W. Ossowski, Ph. D. The researcher took up studies of flat-bottomed floating constructions and delivered a catalogue: "Eastern Pomeranian shipbuilding in the Middle Ages in light of dendrochronological analysis", containing dating of the remains after Middle Age boats and ships stored in the museums in the Baltic region. The place and time of each boat or ship were identified. The project was co-financed by KBN, and its results were awarded in 2003 in the competition "Museum event of the year", in the category "Research achievements".

SCIENTIFIC PUBLICATIONS IN THE SERIES "UNDERTAKINGS OF THE CENTRAL MARITIME MUSEUM IN GDAŃSK"

The authors of the articles in volumes published irregularly since 1963 were the Museum personnel and external researchers. In total, until the end of 2005 there were twelve volumes published:

- I. P. Smolarek, *Zabytki szkutnictwa skandynawskiego*, 1963;
- II. J. Miciński, *Polskie statki pomocnicze i specjalne 1920-1939*, 1967;
- III. P. Smolarek, *Studia nad szkutnictwem Pomorza Gdańskiego X-XIII wieku*, 1969;
- IV. Z. Batorowicz, *Maszoperie kaszubskie. Studium geograficzno-etnograficzne*, 1971;
- V. W. Arkuszewski, *Wiślane statki pasażerskie XIX i XX wieku*, 1973;
- VI. J. Miciński, *Żaglowce handlowe z Rewy*, 1974.
- VII. J. Litwin, *Zabytkowe modele okrętów z Dworu Artusa w Gdańsku*, 1981.
- VIII. J. Trzoska, *Dzieje gdańskiego statku „Fortuna” (1712-1731)*, 1979.
- IX. J. Trzoska, *Kaprzy Augusta Mocnego (1716-1721)*, 1993.
- X. J. Litwin, *Polskie szkutnictwo ludowe XX wieku*, 1995.
- XI. W. Ossowski, *Studia nad łodziami jednopiennymi z obszaru Polski*, 1999.

XII. M. Jankiewicz-Brzostowska, *Timor Maris. Lęk człowieka przed żywiołem wodnym w gotyckim malarstwie polskim*, 2005.

Other series published by CMM are: "Publications of the Maritime Museum in Gdańsk", covering various types of information books, guidebooks, collection catalogues and other popular science items, as well as "Studies and materials of the Central Maritime Museum in Gdańsk" (this series is for scientific papers connected with temporary exhibitions and source materials).

Nautical archaeology

Scientific research in the field has been carried out by the CMM since 1968, when the Museum launched (assisted by the diving clubs "Kotwica" and "Neptun", with experts from the Maritime Authority and Polish Sea Rescue as well as Mr Andrzej Benesz, who made available his yacht "Esperanto") the very first archaeological underwater research in Poland. In 1969 the crew of GUM and PRO during their trawling work for the future anchoring area for the Northern Port discovered wrecks of wooden ships which were registered in the Museum as W-5 and W-6. Already during the initial research at the site Museum personnel found proof of very high historical value of the discovery. In the hull of the W-5, later proved to be a medieval ship, some oval copper casts were discovered, and thus the wreck received its name Miedziowiec (Coppership). In the other wreck, W-6, the divers excavated some cannons: Swedish from the turn of 16th and 17th centuries and one Polish cannon cast in 1560 for the Polish king Zygmunt August. In the course of the research the wreck was identified as the remains of the Swedish warship "Solen", which sank during the Oliwa battle in 1627.

In order to continue the research, CMM received in 1973 from the "Koga" company in Hel a craft boat, B-12, which under the name "Modra Woda" served until 1975. After that, CMM received the same type of vessel, but adapted for research purposes, which received the name "Wodnik" (Aquarius). CMM, equipped with the boat, was able to complete the research of W-5 and to prepare the wreck with its cargo for excavation from the sea. The operation was supported by the Navy in 1975. A year later exploration of the site was completed, later followed by exploration of W-6. The co-operation with the Marine Authority, amateur divers and other companies brought discoveries of further wrecks, which after initial examination and upon recognition of their historical values were registered as maritime antique objects.

Present CMM underwater research pursued in the Baltic Sea is being done from yet another ship well adapted to requirements, named "Kaszubski Brzeg". It has resulted in significant discoveries, providing precious collections, such as the one with a wreck of an English cargo ship built in 1777 in Whitby, which sank during a heavy storm in 1785. The ship was discovered thanks to the information received from an amateur diver and it was the 32nd wreck researched by the CMM in the sea. The present wreck register covers 60 items.

The second place for CMM underwater archaeology is the Buck Bay, where a scientific programme is being carried out concerning identification and recognition of ports and boat wrecks from the early Middle Ages. When in 1990 a show was organised on raising the boat wreck P-3 from the sea, another, the fifth wreck from the same epoch, was discovered. In 2005 the CMM excavated for further research and required conservation of the boat-wreck P-2, typical for Slavic boatbuilding, with some elements typical for Nordic boatbuilding. The research is in progress.

CMM undertook archaeological rescue research, such as the one in 2003, when a sensational discovery took place: a front part of a wreck found in the Rowy port was identified as a cog from the 13th century. It is the first and only discovery of this type of ship in Poland. Now we know that the ship was built in the area of Szczecin at the end of the 13th century. Another significant archaeological project led by a CMM researcher in 2003 was documentation work done on site where a river ship from the 18th century was discovered in Krosno Odrzańskie.

Since the beginning of the 1980's the CMM has carried out archaeological research in the coastal zone, by identifying five boat wrecks from 15th – 16th centuries in Tolkmicko, excavating a boat wreck from the 11th century in Czarnowsk by Łebsko Lake and by undertaking scientific research of an early medieval boat discovered by an archaeologist from Poznań in Łąd on the Warta River. The land archaeology was resumed at the turn of the 20th and 21st centuries, by doing probe excavations on meadows explored long ago in Orunia, Frombork and Dzierżgoń. The most outstanding achievement however was the comprehensive excavations in Kobyla Kępa on the Vistula lagoon, where the remains of a 13th century ship were explored.

The underwater archaeology has been for many years one of the CMM's prides and internationally well recognised, with many articles published aboard. Some of them were the result of presentations during international conferences on the history of the shipbuilding (International Symposium on Boat and Ship Archaeology). Regular participation since 1979 in symposia resulted in CMM being chosen to host the 8th Symposium in 1997 in Gdańsk. Over one hundred experts from many countries attended it and the CMM published all the papers from the symposium and received with this edition international recognition.

PAPERS FROM THE SYMPOSIUM ISBSA

III symposium (Stockholm, 1982)

P. Smolarek: *Vistula Merchant ships from the XVI-XVIII Centuries* oraz *The Development of Archaeology of Boats and Ships in Poland*;

J. Litwin: *The Warship in the Painting from Arthur's Court in Gdańsk - an Attempt at a Reconstruction* oraz *The Development of Folk Boats in Poland from the Example of Structures used on the San and the Bug Rivers*.

IV symposium (Porto, 1985)

P. Smolarek: *The Unknown Boat-Building of a Forgotten People*;

J. Litwin: *Changes in Folk Boat-Building Techniques along Two Tributaries of the Vistula: the Dunajec and the Wisłoka*.

V symposium ISBSA (Amsterdam, 1988)

J. Litwin: *The First Polish Galleon and its Construction Register from 1570-1572* oraz *Clinker and Carvel Working Boats on Polish Waters; Their Origin, Development and Transformations*.

VI symposium ISBSA (Roskilde, 1991)

P. Smolarek: *Aspects of Early Boatbuilding in the Southern Baltic Region*.

J. Litwin: *Shipbuilding Traditions in the Southern Part of the Vistula Lagoon*.

VII symposium ISBSA (Ile Tatihou, France, 1994)

J. Litwin: *The Vistula River Wooden Craft of the 20th Century. Their Construction and Destiny*

VIII symposium ISBSA (Gdańsk, 1997)

J. Litwin: *Boat and Ship Archaeology in Poland*;

W. Ossowski: *Some Results of the Study of Logboats in Poland*;

I. Pomian (coauthor): *Water or Land? Preliminary Results of an Interdisciplinary Project of Palaeoenvironmental Reconstruction at the Site of the Medieval Harbour in Puck (N. Poland)*.

IX symposium ISBSA (Venice, 2000)

J. Litwin: *The Boat Puck-3 in the Light of Investigation of Other Slavic Boats from 9-14th Century*

W. Ossowski: *Expanded Logboats between the Baltic and the Black Sea*

X symposium ISBSA (Roskilde, 2003)

I. Pomian: *Development of medieval harbour in Puck in the light of dendrochronological Dating*;

W. Ossowski: *Two double planked 16th century wreck from Poland*;

R. Domżał: *Inland water transport in the mouth of the Vistula River. Medieval written sources and the interpretation of the new archeological discoveries*;

T. Bednarz: *Wreck from XVI Century near Hel Peninsula*.

The exhibits received as a result of the archaeological underwater research as well as specific wrecks are also popular subjects of master theses written by archaeology students specialising in underwater archaeology at the Mikołaj Kopernik University in Toruń.

OTHER SCIENTIFIC CONFERENCES ORGANISED BY THE CMM

In 1992 the CMM joined the ICMM – the International Congress of Maritime Museums. Membership in the organisation not only enhanced the co-operation network with maritime museums all over the world, but also enabled presentation of the CMM in the ICMM Bulletin published by its Secretariat. In 1998 the ICMM annual conference was held in Gdańsk.

The CMM transferred some ideas of the ICMM to Poland by organising national conferences and thus developing the concept of maritime and river museums. In 1994 CMM hosted the Second Maritime and River Museum Conference, which took place 29 years after the first one. It was very well received by experts in the field and by the authorities, and the most interesting interventions were published by the Centre of Historical Documentation in Warsaw (*Maritime and River Museums*, Warsaw 1995). It was decided then that the meetings would be organised every second year in various Polish museums. The next conferences on Polish Maritime and River Museum (documented in the form of various publications) were held:

III in 1996 in National Museum in Szczecin,

IV in 1998 in Polish Navy Museum in Gdynia,

V in 2000 in The Polish Maritime Museum in Gdańsk,

VI in 2002 in The Warta River Museum in Gorzów Wielkopolski

VII in 2004 in Heritage Park of Pilica River in Tomaszów Mazowiecki

One of the studies undertaken in the CMM is issues connected with maritime and river museums, and the most outstanding publications in the field have been developed by J. Litwin.:

„Muzealnictwo morskie państw Europy wschodniej”, [in:] *Ochrona morskiego i rzeczno-
dziedzictwa kulturowego*, Szczecin 1997, s. 31-43.

„Rola i znaczenie polskiego muzealnictwa morskiego i rzeczno-
Muzealnictwa Morskiego i Rzecznego, Gdynia 28-29 maja 1998 r. Gdynia 2000, s.63-68.

„Z pogranicza muzealnictwa morskiego i rzeczno-
dziedzictwa przyrodniczego i kulturowego rzek Przymorza rzeczno-
Słupsk 2001,
ss. 65-69.

„Osiągnięcia, stan i perspektywy muzealnictwa morskiego i rzeczno-
jubileuszu 200-lecia muzealnictwa polskiego” [in:] *Muzealnictwo*, nr 43, Warszawa
2001, s. 141-156.

Preservation of documents connected with the Polish shipbuilding industry after 1918 was the subject of five scientific sessions organised in the years 1993–2001 together with the Polish Nautical Association and the Department of Ship and Ocean Technical Equipment of Gdańsk Technical University, and the papers delivered at the sessions were printed in the magazine “Nautologia”:

I session on warships built in Poland; published in “Nautologia” issue 4/1993

II session on fishery ships built in Poland; published in “Nautologia” issue 4/1994

III session on cargo ships built in Poland in the period 1938-1996; published in “Nautologia” issue 1/1997

IV session on steamships built in Poland; published in “Nautologia” issue 1/2000

V session on building and operations of the school ships and warships; (not published)

Since 1993 CMM in its main site and in its ancillary site, the Vistula River Museum in Tczew, has been organising national symposia and conferences in river and settlement issues in the Żuławy area. Those were: Symposium Mennonickie (1993) — R. Klim, *Materiały I Zjazdu Mennonickiego im. Helmuta Reimera*, Tczew 1994.)

I Vistula Symposium „Wisła i jej dopływy w muzealnictwie polskim” (1994)

II Vistula Symposium „Powódzie i lodołamanie na Dolnej Wiśle” (1994)

III Vistula Symposium „Przyroda i krajobraz Wisły” (1995).

The history of shipbuilding and warship building in Gdańsk were subjects of the following publications:

By J. Litwin:

„Morskie dziedzictwo Gdańska”, Gdańsk 1998,

„Średniowieczne statki bałtyckie (tradycje i specyfika ich budowy)”, *Nautologia* 1999,
nr 2, s. 2-12.

„Budowa statków” [in:] *Polski przemysł okrętowy 1945-2000*, Gdańsk 2000, s. 14-129.

„Sztuka rzeczno-
Rzeki, t. IX, 2000. s. 217-263.

„Stan badań nad wczesnośredniowiecznym szkutnictwem Słowian nadbałtyckich. Próba oceny i postulaty [in:] *Instantia est mater doctrinae*, Szczecin 2001, s. 183-199.

Budowa okrętu „Smok” dla Zygmunta Augusta. Polityka Morska Ostatnich Jagiellonów [in:] *Arx Felicitatis*, Warszawa, 2001, s. 603-611.

“Shipbuilding Techniques from the Medieval Age Onwards” [in:] *Baltic Sea Identity – Common Sea – Common Culture, 1st Cultural Heritage Forum*, Gdańsk 3rd-6th April 2003, ed. J. Litwin, s. 147-155.

„Ze studiów nad średniowiecznym szkutnictwem Gdańska i Elbląga” [in:] *Archeologia et Historia Urbana*, Elbląg 2004, ss.401-410.

By W. Ossowski:

„Studia nad łodziami jednopiennymi z obszaru Polski”, *Prace Centralnego Muzeum Morskiego*, t. XI, Gdańsk 1999.

[with M. Krapc] „Problemy datowania najstarszych zabytków szkutniczych z terenu Polski metodą dendrochronologiczną”, *Przegląd Archeologiczny*, t. 47, 1999, s. 155-165.

[with M. Krapc] „Niektóre aspekty szkutnictwa późnośredniowiecznego na przykładzie wraka z Kobylej Kępy, koło Sztutowa”, *Przegląd Archeologiczny*, t. 49, 2001, s. 85-101.

„Archeologiczne badania wraków statków żaglowych z XVIII wieku prowadzone przez Centralne Muzeum Morskie w Gdańsku”, [in:] H. Paner, M. Fudziński (red.), *XIII Sesja Pomorzoznawcza*, t. II, 2003, s. 313-334, Gdańsk.

[with M. Krapc] „Wraki tolkmickie w świetle ostatnich badań”, *Komunikaty Mazursko-Warmińskie*, nr 4(242), 2003, s. 415-430.

[with B. Kościński] „Pozostałości średniowiecznego statku spod Zielonej Bramy w Gdańsku”, *Pomorania Antiqua*, t. XIX, 2003, s. 155-176

Medieval large river crafts from the Vistula River, Poland, Schriften des Archäologisches Landesmuseum, [in:] K. Brandt, H.J. Kuhn (red.) *Der Prahm aus dem Hafen von Haithabu, Beiträge zu antiken und mittelalterlichen Flachbodenschiffen*, Schriften des Archäologischen Landesmuseums, Band 2, s. 83-96, Schleswig 2004.

[with E. Szychowską-Krapiec i M. Krapc] „Archeologia na plaży. Badania dwóch wraków z podwójnym poszyciem”, [in:] H. Paner i M. Fudziński (red.) *XIV Sesja Pomorzoznawcza*, Vol. 2, *Od wczesnego średniowiecza do czasów nowożytnych*, s. 339-354, Gdańsk 2005.

For some years now, since before Poland's EU accession, CMM has been invited by foreign museums, mainly from Germany, to participate in international research projects. The material evidence of the work

includes publications on the Internet, and specifically under the NAVIS II programme. (The project leader was the *Museum für Antike Schifffahrt* (in Mainz), and the final results are available on the website: www.waterland.net/navis.)

The Division of Marine Art History is a good example showing that the scientific research brought about not only new exhibitions but also debate on some chosen painting issues. The monographic cycle called “Polish artists about the sea” is now a standard item in the schedule of the temporary exhibitions. The cycle covers maritime subjects in Polish paintings from the period from the end of the 19th century until the first half of the 20th century. The exhibitions are presented within the Baltic Science Festival. Until now the following artworks have been presented: Marian Mokwa (2003), Jan Rubczak (2004), Michał Gorstkin Wywiórski (2005). Every exhibition is documented in form of its catalogue.

EXPERIMENTAL ARCHAEOLOGY — INTERNATIONAL CRUISES

In recent years the CMM has been invited to take part in experimental cruises under research programmes. The representatives of the CMM, R. Paternoga, MA, in 2003 and T. Bednarz, MA, in 2004, took part in a project run by the Maritime Museum in Klaipeda, “The Return of Kurenas”. The project concerned reconstruction of the traditional fishing boats used until 1945 in Kurshsky Bay, called kurenas. Kurena, a Curland boat (German *kurrenkahn*), had a flat bottom, a characteristic gaff rig on the mainmast with a huge pennant, and a small fore-mast. It ceased to be used when the Curland population was resettled to Germany. The Marine Museum in Klaipeda has for years been trying to restore the boats, which were unique in the landscape of Kurshsky Bay. The boats were used for cruises deep into the Kaliningrad Oblast and up the Nemen River.

In 2004 CMM participated in an international – Danish, German and Polish – scientific project. Its objective was the reconstruction of a voyage on a replica Viking sailing boat, Ottar from the 11th century, on the route once taken by an Anglo Saxon traveller, Wulfstan, who for seven days and nights sailed in the 11th century from Hedeby (then in Denmark, today Haithabu near Schleswik) to Truso in Prussia. CMM was represented in the experiment by Ossowski, Ph. D.. The international crew covered the distance in five days and proved that in the 9th–11th centuries it was possible to quickly and safely sail the trade route along the Baltic southern coast. The voyage for technical reasons — too deep draught for the “Ottar” to enter Družno Lake — finished in Gdańsk. Next in September 2004 a seminar was held in Wiesmar on the cruise, when the papers were presented by the CMM representative J. Litwin. *Boatbuilding on the southern shores of the Baltic in the 9th and 10th centuries – comments on selected aspects of Ole Crumlin Pedersen’s paper* oraz W. Ossowski: *Sailing in Wulfstan’s wake. The trial voyage Hedeby-Gdańsk with the Skuldelev I-reconstruction “Ottar”*.

In 2005 another CMM representative, M. Cieślak, MA, took part in a scientific cruise organised by historians and archaeologists from Kiev University, called “Amber Route”, which was to prove that in early medieval times the rivers Vistula, Bug, Nemen, Prypec and Dnieper were used for shipping contacts with Ukraine.

CULTURAL HERITAGE OF THE BALTIC COUNTRIES

With its well equipped conference facility, CMM can organise various scientific conferences and symposia. One of those was held in 2003 as a result of the Museum's participation in the international team working on monitoring of the common Baltic cultural heritage. The so-called Monitoring Group was established in 1999 by the Baltic Countries Culture Ministers Conference. The group appointed four working groups in charge of: coastal cultural heritage, underwater heritage, wooden buildings of historical value and historical urban environment in contemporary cities. The conference, as the First Baltic Sea Cultural Forum („Baltic Sea Identity. Common Sea, Common Culture?"), launched a series of conferences aimed at putting focus on the need to preserve common cultural heritage in the Baltic Sea region, promoting initiatives for its protection, development of methods to safeguard the heritage and establishment of a network of experts and research institutions. The initiative was much appreciated by its participants and was subject to a debate by the meeting of the CBSS Culture Ministers in St. Petersburg, in 2003. The Second Forum was held in June 2005 in Helsinki and the Third Forum is planned for 2007 in Vilnius.

CONSERVATION WORK

For some years now conservationists from CMM have successfully presented the results of their work within conservation of organic and non-organic material extracted from salt and fresh water. The experts from CMM are among the leading professionals in the field in Poland, and they are known to use state-of-the-art methodology, such as polyethylene glycol, vacuum freezing and using sugar method to save from destruction wooden objects extracted from a wet environment. All the activities are aimed at removing water from timber and replacing it with other substances (polyethylene glycol, sugar), and thus permanently protecting the wood. For other organic materials vacuum extraction is used, while for non-organic objects (metals) mechanical and chemical methods are used.

CMM provided its conservation services and developed specific conservation technology for archaeological institutes in Russia and Israel.

CMM's scientific achievements are recognised internationally, so the Museum receives proposals for co-operation in research projects, invitations for scientific symposia and programme committees of various conferences. Often these are high-profile events. For example in 2003 J. Litwin, Ph.D. was invited by the French Foreign Affairs Ministry to participate in the Museum Forum in Paris. He presented two options for further development of the CMM: a plan to establish the Gdańsk Shipyard Museum and a plan to establish the Vistula Lagoon Museum in Kały Rybackie. One year later the organisers of the Europe Museum in Brussels invited the CMM Director to the Programme Committee of the Museum. The institution will be situated in a wing of the European Parliament which is under construction at the moment, and in the scenario of the exposition planned for 2006 the Polish contribution to unification of Europe is recognised.