



DOCKYARDS

The Naval Dockyards Society

Exploring the civil branches of navies and their material culture

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**An unusual survivor, the 1667 Treadwell crane at Harwich, formerly in the naval yard there.
(See the story on page 2.)**

CONTENTS

- Cover Story: A stroll round a former Essex naval base **2** • Notes from the editor **2**
Dates for your diary **4** • Report on meetings with the Portsmouth Naval Base Commander **4**
Striving to save Pembroke Royal Dockyard's heritage **8** • Conservation issues **9**
Ramsgate notes **10** • Visiting Portsmouth heritage area in lockdown **11**
Isla del Rey, Mahon: update **12** • Marc Brunel and the Sawmill at Chatham **13**
Singapore, 1942 **17** • The Royal Canadian Navy Monument, Ottawa **20**
Gairloch and Loch Ewe, Wester Ross **22** • Light vessel LV14 at Gloucester **26**
Book review: *Barracks, Forts and Ramparts* **27** • HMS *Unicorn* at Dundee **30**
Obituary: James H. Thomas **32** • Ship's screw on a railway truck **32**
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Cover story: A stroll round a former Essex naval base

Arriving early for a boat trip, I really enjoyed looking around Harwich, a port where I believe the Royal Navy operated a shipbuilding yard from 1664 until 1717. Subsequently private shipyards built warships there too, until 1827. The former dockyard is now imaginatively called 'Navyard' and may be soon be developed for housing. There are some impressive red-brick Georgian buildings formerly occupied by the navy – Naval House (see photo below) was the residence of the former Master of the Naval Yard. There is also a more unusual remnant – a seventeenth-century 'Treadwell' dockyard crane, powered by two men on a treadmill. No brakes, so it could get out of control! Built in 1667 at a cost of £392, it was moved from the naval yard to its present riverfront site in 1932. It is quite close to the High and Low lighthouses, built in 1818 under the supervision of John Rennie Senior, to replace earlier wooden structures. They are 150 yards apart and mariners would need to line up the lights so as to confirm they were on the correct course. The changing course of the channel made them redundant and they ceased operations in 1863, replaced by cast-iron structures nearby. A maritime museum is now housed in the Low Lighthouse but unfortunately it was closed on the day of my visit as was the Lifeboat Museum. Harwich is the operational headquarters and east of England depot of Trinity House. Out in the river were three redundant lightships. Moored alongside was a fourth, LV18 – www.lv18.org – now a museum.

A naval base in the Second World War, HMS *Badger* was founded nearby with minesweeper, destroyer and submarine squadrons and as many as 1,300 shore staff.

The well-organised Thames Ship Society boat trip on the sailing barge *Thistle* (launched on the Clyde in 1895) took us up past Shotley and we could just see onshore the mast from the former HMS *Ganges* training establishment. Mercantile shipping in Ipswich was interesting but I could not relate to the gigantic shapes of the container ships and car carriers at Felixstowe.

Altogether a very enjoyable day, but my best memories were of the former naval yard

Richard Holme



Naval House (above left) and the Low Lighthouse (above right), with the High Lighthouse just visible to the rear.

Notes from the editor

On behalf of the committee, I very much hope that all readers are managing better now that the Covid crisis is easing. I start with three pieces of good news in these still difficult times!

The first is that the Falkland Islands Government have agreed a capital grant of £1m and a loan facility of £750,000 for the new Lookout Gallery and exhibition Hall for the Falkland Dockyard Museum in Stanley. I have become Treasurer of the Friends of the Museum and our informative website **HOME I FIMA Friends** may be of interest, plenty of maritime stuff. Let me know if you'd like the free newsletter.



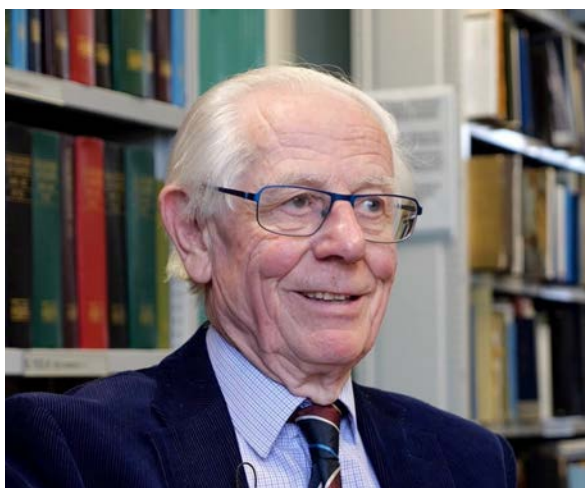
2022 will be the fortieth anniversary of 1982 and the evocative picture above is of an Argentine patrol vessel beached near Goose Green. It will be part of an exhibition of photos taken during the invasion, occupation and aftermath in 1982, to be called 'Falklands40@40'. It will naturally be staged at the Museum in Stanley from February 2022 but hopefully one or more museums or galleries in the UK will choose to host it also.

Secondly, a very interesting addition to the National Museum of the Royal Navy is a Coastal Forces Museum on the Explosion site at Priddy's Hard. As we go to press this was expected to open in mid-October and will inter alia feature two boats of wartime vintage, MTB 71 and Coastal Motor Boat 31. NMRN is investing £900,000 in this new facility. See **Historic "Spitfires of the Sea" take the high road to be centre stage in major new permanent exhibition | National Museum of the Royal Navy (nmrn.org.uk)**.

Thirdly, NDS Member Dr Ian Buxton was appointed MBE in June 2021 in recognition of his services to the preservation of British maritime history (and also to the community in his home town of Tynemouth). Of particular note among his considerable achievements has been the Marine Technology Special Collection (MTSC), a unique archive at Newcastle University of the British shipbuilding and allied industries, including shipbreaking. One of the MTSC's resources is the British Shipbuilding Database of 81,000 British-built ships. While it is still work in progress, it can be consulted either by visitors or by request to Marine.archive@newcastle.ac.uk. Ian is very well known in maritime history circles and has contributed to this newsletter and also our annual conferences.

We are planning our 2023 annual conference and its tentative title is 'The Economic and Social Impact of Dockyard Closures'. This will embrace heritage aspects. More details to follow.

Ian Buxton MBE.



Richard Holme.



2021 is the three-hundredth anniversary of the death of the renowned sculptor and wood carver Grinling Gibbons. There has been mention of his early days working in Deptford Dockyard and learning many of the skills he would deploy later in life. Do any readers have more detail about his period in Deptford?

We are most grateful for the continuing work of David Baynes, who distributes both this newsletter and *Transactions*. David arranges the printing of *Dockyards* locally, receives these and *Transactions* from the printers and arranges mailings to members. Thank you, David.

All photos are by the authors of the articles unless otherwise stated.

Richard Holme (editor) – richardholme8@gmail.com

DATES FOR YOUR DIARY

26 March 2022 Annual General Meeting

Papers will be sent to members well in advance and the meeting will be conducted on Zoom or a similar platform. Instructions and an invitation will be issued to members well in advance.

9 to 11 June 2022 International Conference

Joint International Conference at Portsmouth sponsored by the Society for Nautical Research.
'Dockyards as modes of naval architecture, maritime traditions and cultural heritage'.

It will address three themes:

1. Building a ship of the line or warship.
2. Dockyards as heritage
3. Dockyards as global hubs and regional centres of maritime culture

It is planned to include behind the scenes tours in the afternoon:

Walking tour of the Georgian dockyard, Admiralty Library,
Portsmouth Royal Dockyard Historical Trust Museum, Block Mills, Harbour boat trip.

Report on meetings with the Portsmouth Naval Base Commander, Cdre Jeremy Bailey, and Captain Iain Greenlees, Head of Base Infrastructure, online, 1 February 2021 and face-to-face, 12 July 2021

Ann Coats, Paul Brown (representing NDS) and Celia Clark (12 July only, representing Hampshire Buildings Preservation Trust) were invited to the meetings to discuss Naval Base heritage as part of an ongoing engagement with the Naval Base.

We asked if we could discuss their priorities for the conservation strategy of the historic estate in the meeting and the possibility of future disposals.

Cdre Bailey sent this agenda for the first meeting:

1. Progress update across Heritage Estate recovery during CV19 (19/20)

- The Parade
- ONA
- Block Mills
- Watering Island

2. Development Plans:

- Victory Square – Old Iron Foundry, 35 Store, 25 Store, The Parade, Fire Station
- Watering Island

3. Wider Recovery Plans

- 6 Dock – leading to No 1 Basin

4. Heritage Risk Management

- Inspections and Surveys
- Prioritisation
- Treatment

IG showed slides of renovations in the Parade and Watering Island and plans for further refurbishment of other historic buildings around the Parade and Victory Square. They attributed this 'vision' to income resulting from the carriers being based in Portsmouth, because several contractors and RN units wished to be close to the carriers and were prepared to pay for expensive conservation to occupy these buildings. The development of the naval base to accommodate and service the carriers had been undertaken with a budget of £100m. This included dredging and the work on the two new berths. It complemented the 'Global UK' agenda, of which the aircraft carriers were an important part.

AC asked about disposals, and JB said the position regarding the **Block Mills and 6 Dock** was being revisited and a decision would be made in 2022. There were difficulties of access, because they were beside the two main vehicle routes to the carrier berths. Work carried out on the Block Mills had included new windows, re-pointing throughout and some structural repairs; now weathertight. If it cannot be released, then a new use will be found for it.

6 Dock: New gates to be installed after repairs to stonework due to collapsing sea walls. To go out to tender later this financial year. Most of the cost will be incurred next year.

No. 1 Basin caisson: to be replaced – about to go out to tender. This will then allow the gates to 4 and 5 Docks to be replaced.

Disposal of the **Old Naval Academy** was a possibility because it would be too expensive to refurbish as a new Wardroom: they could not justify the cost, and it would satisfy the National Audit Office to dispose of it. As it is on the periphery of the Base, security issues are less challenging but its proximity to Admiralty House is problematic. All furniture and carpets stripped out, asbestos to be stripped out this year. Outside including cupola now stabilised, over £1m spent in last year. Fence may be moved to put it outside PNB, allowing it to be leased out.

Anchor Lane Storehouses and Ropehouse— three defence contractors interested in occupying; possible use for university innovation centres.

Watering Island: Old Chain Store and adjacent building extensively renovated for HMS *King Alfred* Royal Naval Reserve: reservists moved in in April, as new HQ for SE area RNR. Official opening will be in October. The space includes reception and drill areas, training rooms and a gym. Semaphore Tower will shortly house the RN Artificial Intelligence team: glazing, repointing, weatherproofing undertaken. Another unit may occupy the refurbished Sail Loft in 2022/23. New radar has been installed in Semaphore Tower. A total of £22m has been spent on Watering Island.

* * *

Development Plan for Command and Innovation Hub

The Parade (Long Row): £4m spent; new roof, porches and windows – all of the exterior stabilised. Link buildings at rear are being removed. Interior structural work – oak floor beams and stringers replaced or reinforced. Project Manager: BAE Systems, project contractor: Bryburn. Conservation of No. 1 has been completed and fitted with Georgian furniture; now re-occupied as a residence for Commodore Surface Flotilla – £2m more to be spent: Nos 2, 3 and 8 renovation 2021/22, Nos 4–6 2022/23. Will be used for visitor suites, residences and small conference centre/conference break-outs. Funding for conservation of the detached kitchen buildings to the rear of the properties has not yet been secured.

25 Store: £1m spent this year on restoring external fabric, new roof and windows, new seasoned oak timbers, etc. Future use being scoped as Fleet Command Team and RN Innovation Hub. Moving 200 RN and MOD people into Maritime Innovation Hub in 2021/22 and Operational Advantage team (proposed for 2022/23, but as yet unfunded).

Old Iron Foundry: being refurbished for Fleet Warfighting staff (Maritime Battle staff HQ) 2021/22, for occupancy in May 2022.

Other elements of the Command and Innovation hub in this area (**Victory Square**) are awaiting

sign-off. **35 Store** has the potential to be refurbished as large conference centre or training centre – proposed for 2022/23 or 2023/24 if funding is made available. These buildings will all complement the Naval Base HQ (Victory Building) and Surface Flotilla HQ (Cochrane Building).

* * *

Other tentative plans for heritage buildings are waiting opportune funding etc, e.g. Old School of Naval Architecture opposite Admiralty House. Some buildings may transfer to PNBPT.

At the second meeting a tour of Watering Island, the Old Naval Academy, 25 Store and The Parade was undertaken.

Watering Island: the flexible spaces of the Old Chain Store (Chain Cable Smithery and Testing House, empty since 1971), and an adjacent building (Rigging House) have been extensively renovated for HMS *King Alfred*. Floors had to be stabilised, due to variable underlying geology, and residual damp is drying out. An impressive suite of reception, IT/classroom training (including VR) and exercise facilities are reusing these buildings, maximising retention of their original features.

The **Old Naval Academy** (1729–32, Grade II*), empty since 2006, has had a water tank and damp-retaining carpets and rubbish removed. The roof and cupola have been repaired to improve weathertightness, but asbestos remains in the roof. It is inhabited by foxes.

25 Store (1786, Grade II*) had a mould loft on the upper floor, operational until the 1980s. Twentieth-century buildings in the courtyard were demolished in 2011. While still a work in progress, this evidenced an exemplary refurbishment of the floor, roof timbers, wooden panelling (removed temporarily to allow the walls to dry out) and window frames. New roof beam sections of oak are being cut into scarf joints to replace damaged timber.

Finally, **The Parade:** 1–8 Long Row (1715–19, Grade II*), a terrace of dockyard officers' houses. Phase 1 was to make the external structure completely weathertight, with new roof, joists and downpipes and repaired parapets, completed to a high level of finish. No. 1 (not seen internally) has been sympathetically refurbished for occupation, telling the story of its evolution. Under Phase 2 drainage and services to the whole terrace are being repaired by a contractor. The later added links to the annexe buildings were removed in 2020, with the annexes (kitchens and toilets) next on the list of tasks. The aim is to bring the whole terrace back into use, but more funding is required. We visited No. 4 where rain had penetrated down the outside walls so some joists and ends of floor beams are being replaced. The annexes are in a sorry state but appear to retain some internal features. The garden could barely be seen as it was occupied by huge Leylandii.



The renovated Old Chain Store on Watering Island, now in use by HMS *King Alfred*, the RNR headquarters. Credit: Celia Clark.

The former Mould Loft in No. 25 Store, undergoing conservation. Credit: Celia Clark.





Two images of the interior of No. 1 The Parade, as restored. Credit: Portsmouth Naval Base.

In the following discussion we offered to publicise their impressive conservation work, e.g. by nominating No. 1 The Parade for the Portsmouth Society's Best Restoration Award, which CC has now done. CC suggested that they might contribute to the Hampshire Buildings Preservation Trust Annual Report (now agreed by HBPT: one and a half pages + pictures, deadline mid-September). We also offered to publicise their achievements more widely in the conservation world such as Europa Nostra. The Georgian Group might well be interested in No. 1 The Parade. AC proposed offering the Georgian Group an article updating her 2019 article on Georgian Heritage at Risk. Commodore Bailey said they would continue to pursue further conservation grants.

Cdre Bailey discussed the Navy's response to rising sea levels. They had raised the height of two jetties, but in longer term, more substantial flood protection may be required. Low carbon and solar energy policies are also being pursued. From October 2021 New York based KBR, working in a joint venture with BAE Systems as KBS Maritime, will support the Royal Navy and base infrastructure for five years. Cdre Bailey responded to a question about the progress of the MoD Heritage Strategy Group. He stated that its aims and realisable goals are being drafted to define how the Navy relates to heritage.

Captain Greenlees subsequently sent a pdf version of their initial presentation and two images of No. 1 The Parade finished product. He concluded: 'We definitely work on the assumption that recognition of success breeds further success, so if you have ideas on regional/national stakeholders we should be engaging with to share the recovery journey, I would be delighted to hear your thoughts.'

All in all, they were very promising meetings which demonstrated a welcome commitment to the repair, conservation and re-use of historic buildings in the base. Cdre Bailey expressed a desire to continue working with us and other relevant heritage bodies.

From our 2017 letter which highlighted the extreme neglect of many naval base buildings on the At-Risk Register, unused and decaying for decades, of no value, a remarkable reversal of strategy treats them as potential assets for restoration and reuse. This situation derives, in part at least, from the presence of the carriers for fifty years, raising the value of historic buildings which can house new or existing functions to serve them within the secure dockyard perimeter.

Paul Brown, Ann Coats and Celia Clark, July 2021

Appendix

Recent freedom of information requests made by NDS to the MoD have shown that expenditure in 2020/21 on the 'at risk' heritage buildings included:

6 Dock Development of a solution for permanent full tidal barrier/closure at the entrance of the dock, and remediation of distress and dislocation of the gravity sea wall behind Sheer Jetty. £115,827

Monitoring of movement in north altar steps. £4,700

25 Store Professional services to identify and develop options for returning the building to use and occupation, including permissible alterations. £75,000

Carry-over from 2019/20 – conclusion of works to make good external fabric, following demolition of unsympathetic courtyard buildings. £3,613

Progression of work to promote stability – repairs to main beams, and roof works to prevent water ingress. £76,965

Roof truss structural repairs and stabilisation. Repairs to north range and south range roofs. Replacement of lintel at north courtyard elevation. Removal of embedded steel and repairs to masonry. Cleaning of courtyard elevations. New windows to former door openings. Repair works to trusses and floor beams north and south. £639,721

The Parade

No 7: Asbestos removal to allow follow-on works. £11,000

No. 1: Supply of furniture and fittings to enable reoccupation as a residence. £24,895

No.8: No. 8 The Parade – Beam end repairs additional to main project for restoring structural stability. £109,500

Stabilisation Works Stage 2: Return No. 1 to use, including new foul and surface water drainage to the front of the building; alterations to room layouts; fitting of bathrooms and kitchens; internal rewiring, plumbing and decoration. Deconstruct the links between the rear elevation and the extensions of Nos. 3 to 8, and provide temporary steel external staircases to give access to the first floor extensions. Brickwork repairs. External hard landscaping. Repairs to bay windows. Replacement rainwater goods. External decorations. Reconstruction of external lightwells. Making of new connections to existing drainage system. Remedial lining of existing drain run. Completion of lightning protection system. £1,369,287

Old Naval Academy Initial building and planning consent for future use and occupation. £15,837

Removal of water tank and remedial work to tank room walls. £27,002

No. 1 Basin Conservation architect services to prepare a heritage statement on the basin and associated dry docks. £7,452

Carry-over from 2019/20 – analytic CCTV. £807

Assessment work to inform business case for 1 Basin caisson replacement. £5,000

Silt sampling and pre-works to develop solution for removal. £32,649

Annual monitoring of cracking/displacement. £8,500

Block Mills Extensive parapet and roof works carried out. £* not specified

There were also inspections and planned and reactive maintenance tasks which, together with the above listed works, gave total expenditure on the “at risk” (Historic England) structures, excluding * above for the Block Mills, as follows:

5 Dock £15,708

6 Dock £140,387

1 Basin £86,420

Iron Foundry East Wing £12,804

Old Naval Academy £66,563

25 Store £808,123

The Parade £1,534,878

Block Mills £20,196

Total £2,685,079

Striving to save Pembroke Royal Dockyard’s Heritage

Through late 2020/mid-2021, with Adrian James of Save the Commodore Trust, the Society for the Protection of Ancient Buildings, Save Britain’s Heritage, the Victorian Society and the Georgian Group, the NDS campaigned against multiple planning applications to infill listed structures and construct two 40m high buildings in the historic Pembroke Royal Dockyard.

NDS considered that these proposals would cause substantial harm to the significance of Pembroke Dock Conservation Area and destroy many Grade II and II* listed heritage assets. It argued that the green benefits of an Energy Infrastructure scheme to manufacture marine energy devices on this site would not justify such harm, that no evidence was offered for ‘reversing’ such infilling and that insufficient justification was presented for considering alternative brownfield sites. The NDS called on the Local Planning Authority to refuse planning permission.

As the NDS is not a statutory Amenity Society, our application submissions were not made available to the public, but we were able to advance our case through supportive press. NDS argued that freeing up this historic space within the western dockyard would offer more diverse employment opportunities for the town in the heritage, educational and marine-based leisure activities sector. Pembrokeshire already has a major rural tourism industry, but dockyard heritage could add to the offer. The NDS campaigned that this decision should not be binary, sustainable energy jobs *or* heritage – there is room for both.

However, Pembrokeshire County Councillors were swayed by the varying numbers of promised jobs and approved the scheme. In June 2021 the Welsh Government decided not to ‘call in’ or intervene in this decision. Adrian James continues valiantly to comment on tenders to be awarded for infilling and possible further scheduling of structures. We await news of any amendments.

The Grade II* Graving/Dry Dock will be infilled and partially built over, the Grade II Timber Pond infilled and built over, and the Grade II Building Slips Nos 1 and 2 partially demolished and removed. These threatened structures are the last and most important features of Pembroke Dock’s magnificent and unique assemblage of thirteen slips, graving dock and timber pond, functioning 1814–1926.

It is noticeable that the most marginal royal dockyards in the twenty-first century, Pembroke Dock and Sheerness, have suffered the most damaging treatment. Sheerness has benefitted from refurbishment of officers’ houses and regeneration of the Church, but Pembroke Royal Dockyard’s heritage is now condemned to be fragmented and degraded.

Dr Ann Coats

Conservation issues

We have reported very positive news from Portsmouth, and a rather sad report from Pembroke Dock, earlier in this newsletter.

Very good to hear also that the excellent £8.2m refurbishment of the Fitted Rigging House at Chatham won the RIBA South East Sustainability Award 2021. This award reminded us of the important general issue of conserving and finding a use for dockyard buildings. This has featured many times in this newsletter and we are planning an ‘omnibus’ issue of *Dockyards* in 2022 featuring some of the most interesting articles on this topic, not just in the UK but worldwide. The omnibus issue will be sent to members and also various conservation bodies for information and also to enhance the profile of the Society.

Also at Chatham, the NDS and others have successfully opposed a planning application (MC/21/1139) to change the 1845 Grade II* No. 8 Machine Shop into a ‘Drive Thru Cinema’. We believed insufficient safeguards were in place to preserve the original structure. The application was overturned in September 2021, partly also as it disregarded the interests of local residents, who would have suffered late night noise and light.

Disturbing news from Gibraltar as we went to press is of a planning application at Rosia Bay. A petition is being mounted against it. We await further details.

Also, sad to hear in July 2021 that Liverpool had lost its World Heritage Status. Our Chair Dr Ann Coats comments:

Liverpool’s historic centre and docklands were inscribed as a globally renowned major trading centre in the eighteenth and nineteenth centuries with innovative developments in modern dock technology, transport systems and port management. It is only the third site to lose its World Heritage status because the Liverpool Waters project was deemed to have reduced its authenticity and integrity.

Ironically, it was Liverpool which stimulated new government/non-governmental public bodies in the 1980s (National Heritage Lottery Fund and Historic England)* which have since provided

* Department for Digital, Culture, Media and Sport, National Heritage Lottery Fund and Historic England.

The Custom House.
Credits: exterior,
Alamy; interior, SAVE
Britain's Heritage.



strategic capital inputs to heritage sites. By renovating Liverpool's Albert Dock after the 1981 Toxteth riots, Michael Heseltine, Secretary of State for the Environment 1979–83, encouraged the transformation of a dilapidated industrial site for social and economic purposes.

Our friends at SAVE Britain's Heritage have expressed concern about the future of the impressive 1820s Custom House on the Thames riverfront in the City of London. A campaign was launched through the issue of PRESS RELEASE: Future of magnificent Thames landmark to be decided by City Corporation (savebritainsheritage.org) late last year. The building has magnificent Regency era interiors as well as a superb exterior. As we go to press, there is good news that the City of London planning committee have rejected plans for the building to be converted for use as a luxury hotel.

Regrettably important listed buildings at Sheerness such as the Boat Store continue to deteriorate.

Richard Holme

Ramsgate notes

In July I was pleased to visit the Ramsgate Maritime Museum, now open again after the lockdown. On its two floors, it has very informative displays focusing on Ramsgate, the Goodwin Sands and the nearby former military port of Richborough. The Museum is housed in the 1817 Clock Tower (pictured on the next page with veteran paddle steamer *Medway Queen* out of water for maintenance) of the Royal Harbour. The Museum incorporates the 1946 steam tug *Cervia*, also pictured, and is run by the Steam Museum Trust, a registered charity.

Richard Holme



**Above: *Medway Queen*.
Credit: N. Lambourn.**



Right: *Cervia*.

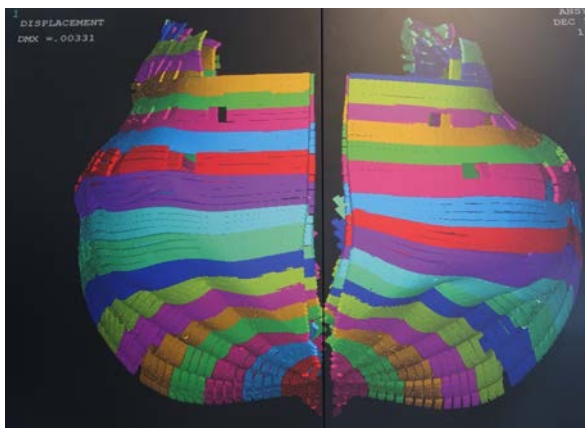
Visiting Portsmouth Heritage Area in lockdown

I visited the Portsmouth Heritage Area on 17 May 2021. The visit was surreal because there were so few people there – only about eighty to a hundred had booked to come that day, whereas usually in mid-May there would be hundreds . . . It was unclear whether we could just walk into the heritage area without a booked ticket, though we were told that this is still possible. It was our friend research student Monica Vargiu's first visit, despite having been in Portsmouth since December. We managed to cram in several tours before she returned to Cagliari, where she is researching the conservation of historic military airfields for the Italian Ministry of Defence.

The rather gory audio-visual about the Battle of Trafalgar has been replaced by a slide show about the restoration of the *Victory*. We don't know how long it's been there because it is many years since we went inside the Museum. The new display about conserving the *Victory* was excellent in explaining that she

'is a victim of her own success as a national icon; visitors cause wear and tear to the ship which we mitigate through our maintenance and conservation work. The ship currently has more than 300,000 visitors a year . . . To ensure [her] survival we need to preserve key skills such as shipwright and rigging skills, develop detailed conservation skills and knowledge, have a sustainable oak supply and research effective ways to ensure her survival . . . A diverse workforce of shipwrights, conservators, riggers, engineers and archaeologists combine traditional skills with modern technology to care for [her].'

This illustration overleaf shows the pressures on the hull of *Victory*, which have now been addressed by specialised props. It's an extraordinary experience to walk right underneath it at the bottom of



HMS *Victory*'s hull. Credit: NMRN.



A decayed railway wagon near *M33*.

the dry dock. On board we heard how constant vigilance to find and destroy woodworm didn't stop during lockdown. For months, the specialist with his zapper when he spotted them was alone in the ship.

We were concerned to see the decayed state of this railway wagon beyond the monitor *M33*.

The cafe at the *Mary Rose* was open for a welcome sit-down and sandwich lunch. The experimental parts of the *Mary Rose* museum – such as testing your strength on drawing a long bow and dressing up and games for kids – have gone, and so had the introduction panels on the way in. The costumed guides are there – we met Captain Carew. A cleaner works tirelessly to clean all railings and surfaces touched by visitors, not only in the *Mary Rose*. We were supposed to touch the touch screens with a small jabber, not our fingers, which we had to give back on the way out.

Celia and Deane Clark

Notes by the editor – a friend who visited in early September 2021 saw more visitors but numbers on the ships were still limited, making though for comfortable viewing. Also mask wearing requirements varied rather between *Victory*, *Warrior* and *Mary Rose*. I understand that the railway wagon is an old box van (general goods carrier) dating from the 1940s or before.

Isla del Rey, Mahon: update

We're nearing the end of what has been without question the busiest summer ever in the life of Isla del Rey. In the first month of opening there were some thirty thousand visitors, and as I write the catamarans contracted by Hauser and Wirth are still travelling over every hour full, even until late at night when the restaurant finally closes its doors. The big attraction of course is the contemporary art gallery of Hauser & Wirth, which has received huge worldwide publicity. Menorca has also bene-

The entrance to the art gallery.



The Naval Hospital in September 2021.



fitted from a large influx of national tourists this summer; we've missed many of our British tourists due to the Covid restrictions on travel and the accompanying uncertainty, but there have been more Spanish and French visiting our shores than before. The famous art gallery seems to be at the top of everyone's list of places to visit.

Until the end of October, the volunteer guides of the Foundation are coping with large groups of visitors who come initially for the gallery but are awed at the size of the old British naval hospital and curious to see inside. (Our windows are kept clean by endless noses pressed against them.) Instead of just our usual Sunday visits, we've been offering tours almost every day. However, I have to admit, the demand for guided tours is more than a group of volunteers can cope with, and for next year we'll have to plan our strategy on opening the hospital rooms.

For June 2022, we plan to have the first floor open all day to the public as an Interpretation Center for the history of Port Mahon. About half of this has already been completed thanks to donations for rooms from a number of individuals, associations and companies. The latter includes R.W.D., a superyacht design company in Brockenhurst which donated the funds over a year ago and still haven't been able to come and see the results due to travel restrictions. An American room was sponsored by a couple from New York and they were joined as volunteers by a retired American admiral. He stayed a few weeks in Mahon harbour while sailing around the world and became enthralled with the whole restoration project, so came with his wife to help on Sunday mornings to dig out an old forgotten jetty. Our wonderful volunteers never cease to impress me!

This dramatic increase in popularity of the island seems to have helped our pleas for financial help to finish the hospital building. The scaffolding is about to be taken down from the south wing, the latest of the major works where the new roof and beams have been completed. Although we still need to find more donations to complete the interior, this has been funded from the Spanish Government's Cultural department. A lift is due to be installed in the next few months for the first floor and a much-needed ramp, essentially for wheelchair users, will be built before next summer. Our thanks especially here to Captain Bob Radford, although eighty years old and now physically disabled himself, has raised funds for the ramp by cycling eighty miles on a static bike at his home in Boston, USA. Amazing!

Being on a small island brings added complications because we depend totally on maritime transport. Our long-suffering dinghy came to us in the early days, many years ago after being captured by the Guardia Civil as a drug-running boat. They kindly conceded it to us for the much more useful purpose of transporting people and material to and from the island. It truly deserves a place of honour in our history for all the hard work and the thousands of short trips it has done, often abused with heavy building material or furniture or cumbersome machinery which needed transporting. However, like all of us it's not immortal, and after numerous repairs to everything that can possibly be repaired, the time is coming to lay it to rest. Now we're presented with the problem of trying to find a replacement and they don't come cheap!

The summer has been intense and we've seen a big change on Isla del Rey, but we have to keep our feet on the ground, and the fact is we still have plenty of work to do on the hospital and grounds, repairs to the paths, gardens, lighting, completion of the first floor, security, information videos etc. No risk of any volunteers becoming bored, at least not for several years to come.

Beverley Ward

Marc Brunel and the Sawmill at Chatham Dockyard

Falmouth, 7 March 1799: the vessel *Halifax* arrives in the harbour from the United States. On board is a French émigré engineer. His name: Marc Isambard Brunel. As a Royalist sympathiser, Brunel had fled his home country following the French Revolution and sailed to New York. He had been granted US citizenship and in 1796, at the age of twenty-seven, appointed Chief Engineer of New York City.

Earlier in his life Brunel had been a cadet in the French navy and had served on board a frigate in the West Indies. He had retained his interest in naval matters and during a dinner party in 1798 with Major-General Hamilton, the British aide-de-camp and secretary at Washington, conversation

turned to ships and navies, and then to the manufacture of wood blocks for sailing ships. These wood blocks housed the ropes for the sails and rigging. A seventy-four-gun ship of the line needed 1,400 blocks, which were made by hand. Moreover, because the blocks were to be subject to storm, sea water, wind, ice and sun, each ship would sensibly set sail with a hold full of replacements for the voyage. Mention was then made about Britain's Royal Navy and the problems it was experiencing obtaining the 100,000 wooden pulley blocks needed each year for the rigging on its ships. This immediately kindled Brunel's interest and he produced an outline design for a machine that would automate their production. He became determined to travel to England to present his design to the Admiralty. Armed with a letter of introduction from Hamilton to the First Lord of the Admiralty, Earl Spencer, Brunel set sail from New York on board the *Halifax* on 20 January 1799.

On arrival in England, Brunel travelled to London and sought out the English girl he had first met when she was staying with friends in France back in 1792. Her name was Sophia Kingdom. When re-united they soon rekindled their romance and were married on 1 November 1799. They went on to have three children, the youngest of whom was Isambard Kingdom Brunel.

During the summer of 1799, Brunel had contacted Henry Maudslay, a talented engineer who had made his name working for the inventor Joseph Bramah. Using his letter of introduction to Lord Spencer, Brunel persuaded Maudslay to manufacture some working models of his proposed block-making machine to present to the Admiralty.

After initial rebuffs, the designs attracted the attention of Sir Samuel Bentham, Inspector-General of Naval Works and an accomplished engineer, who was already planning improvements in block-making. Bentham was also a proponent of using steam power in the royal dockyards and had already designed a wood mill at Portsmouth that used steam to turn circular saws. Above this wood mill, on the first floor of the building, Bentham installed machinery, manufactured by Maudslay to Brunel's designs, to produce wooden pulley blocks. By 1806, forty-three machines for executing different processes in making blocks were in use in Portsmouth Dockyard.

Between 1805 and 1812 Brunel was increasingly engaged in designing wood-working machinery for government mills at Woolwich and elsewhere, subsequently investing in his own sawmills at Battersea. Meanwhile, the royal dockyards were employing over nine hundred sawyers to cut the timber manually, with about a hundred and fifty employed at Chatham. The sawyers worked in pairs, using a two-handed saw over a saw pit, and were paid 4s 2d per 100 feet sawn. In 1811, Brunel submitted to the Navy Board plans and estimates for four large sawmills at the royal dockyards. Out of the 66,000 feet of timber cut each day at the dockyards, he estimated that 40,000 feet was suitable for mechanical sawing and that his four proposed mills could achieve this and probably more thus replacing 184 pairs of sawyers. Each mill was estimated to cost £11,400 (about £912,000 in 2021 values) to build but would make an annual saving of £3,600 on wages. Suitably impressed, on 31 January 1812 the Admiralty ordered Brunel to build the first mill at Chatham.

The Chatham sawmill design consisted of eight saw frames that each carried an average of thirty-six reciprocating saw blades powered by belts from a drive shaft running the length of the basement. This shaft was connected to a steam-powered beam engine housed in the mill's western pavilion together with two wagon boilers and a cast-iron tank in the roof space. A similar pavilion at the eastern end of the mill provided a working area for joiners and carpenters. Once in commission the mill would have the potential to produce up to 1,260 feet of sawing per minute, enough to fulfil the needs of all the royal dockyards of the time.

A site on high ground at the north-eastern end of the dockyard was chosen for the sawmill and construction commenced in August 1812 overseen by the Navy's Surveyor of Buildings, Edward Holl.

The higher ground on which the mill complex was to be built allowed Brunel to incorporate what was probably its most innovative feature. In addition to the sawing of timber, Brunel had been giving much attention to the handling and transportation of it around the yard. At that time, all log timber arriving at Chatham would be landed at the wharf to be dragged by horses to a convenient site for surveying and stacking.

When required for sawing, the timber would need to be moved again to the saw pits, and once sawn, to another stacking area. The annual expenditure in wages and cost of horses all this movement and handling was estimated at £4,000. Brunel rightly considered this system as completely

segmental design which was much weaker and contributed to a collapse during construction, killing one man and injuring ten others.

Another example of contention between Brunel and Holl concerned the 120 foot high sawmill chimney. The chimney's foundations had been set in a combination of clay and chalk causing it to set irregularly. Brunel expressed concern and called a halt to its construction. Holl overruled him and the building work continued. Inevitably cracks and bulges began to appear requiring the chimney to be reinforced with buttresses and wrought-iron ties buried into the brickwork.

Despite these problems, the sawmill was completed in June 1814 and began working in August that same year. The impact of the sawmill on the dockyard's workforce became evident within months, with the numbers of sawyers and horse teams dramatically reduced. The small number of sawyers that were retained were engaged on a reduced rate of pay and only employed on work in the mill or on tasks too complex for the mill's saws.

Further use was made of the mill when in December 1815 a set of Brunel's pulley-block manufacturing machinery, identical to those in use at Portsmouth, was installed on the upper floor. This provided Chatham with its own supply of economically produced blocks as well as acting as a back-up to the Portsmouth manufacturing site, thus forming a guaranteed supply of blocks for the whole Royal Navy.

The sawmill's steam engine was also utilised for pumping water around the dockyard, improving supply to all corners of the yard and greatly enhancing fire-fighting capabilities.

The increase in the sawmill's activities prompted an Order in Council, signed by the Prince Regent on 30 January 1816, authorising the appointment of a Master of the Mill:

. . . to have the superintendence and management of the machinery and other works connected with it, including all the water works and pipes about the yard, and that he should be allowed a salary of two hundred and fifty pounds per annum, being the same salary allowed to most of the master workmen in His Majesty's Yards.¹

Ever conscious of overheads, the Navy Board decided that this expensive new appointment would have to be made at the cost of the mill's existing superintendent, a Mr Ellicombe, who was held in high regard by Brunel. On being informed that Ellicombe was to be dismissed, Brunel wrote a stern letter of objection to the Navy Board emphasising the reliance and trust he placed on his superintendent's services at the mill and if he were to be deprived of them then:

. . . I shall be under the necessity of making more frequent journeys to and from Chatham, a circumstance attended with great inconvenience to me and of greater expense to the public than Mr. Ellicombe's charges could possibly have been.²

The Navy Board bowed to Brunel's protestations and agreed that Ellicombe could be retained at public expense until such time as his services were no longer deemed absolutely necessary.

Additional uses continued to be proposed for the mill and its steam engine. In June 1817 consideration was given to attaching rollers for milling lead into sheets and pipes but it was concluded that the engine lacked the power for this additional burden; a decision that later led to the building of a separate lead mill in the south of the yard. Around the same time a 'treenail mooting' machine was installed in the mill. A treenail or trenail was a round piece of wood used as a nail to hold hull timbers together. They were preferred to metal nails as they did not rust. They had traditionally been made by hand by older shipwrights known as 'treenail mooters'. The machine designed by a Mr Beale and powered by the mill's steam engine allowed this laborious process to be automated.

By the 1820s the mill was in full production: sawing timber, producing pulley blocks and tree-nails and pumping water, not only around the dockyard but also now to the adjoining Royal Marine Barracks. In 1827 a proposal was made to extend the water-pumping process to the Melville Naval Hospital on the opposite side of Dock Road. The demands on the mill increased further when it was required to supply sawn timber for the construction of dwellings for the new naval base on the island of Fernando Po, a former Spanish colony off the coast of West Africa, which had been taken over by Britain. To meet this demand the mill was working all daylight hours, seven days a week and the steam engine continued to work three hours every night pumping water. All this extra burden inevitably took its toll on the steam engine, which had to be completely re-built in 1828.



The lock connecting the South Mast Pond to the canal tunnel.

The sawmill from the west today.



Brunel was knighted in 1841. The following year he suffered a stroke and another in 1845. He died in London on 12 December 1849 and was buried at Kensal Green cemetery.

Brunel's sawmill at Chatham continued in production for many years despite suffering a serious fire in 1854 which destroyed many of its original fittings. However, by the 1880s 'ironclads' were displacing wooden-hulled warships and the demand for timber swiftly declined. Even then timber deck planking was still required, and this continued to be sawn at the mill.

By the early years of the twentieth century the requirement for a steam-powered sawmill at Chatham completely disappeared. What little sawn timber still required by the dockyard was now processed at a much smaller electrical-powered mill that had been built on St Mary's Island.

The steam engine was eventually removed from Brunel's mill, and the travelling crane rails taken up. The underground canal was drained and partially infilled, however this was not the end of its use. During the Second World War the canal tunnels were converted into air-raid shelters and the dockyard's Civil Defence Control, a role it continued to play through the 'Cold War' period. During investigative on the site of the South Mast Pond in 2008, archaeologists discovered the lock that connected the mast pond to Brunel's underground canal. The lock was completely excavated in 2014 and now forms a public display complete with information boards and can be viewed in the visitors' car park.

The sawmill building went on to see further use as the dockyard laundry and a diving equipment store until the closure of Chatham Naval Base in 1984 when it was handed over to the Chatham Historic Dockyard Trust. Since 1988, the Grade 1 Listed building has been occupied as a workshop by North Kent Joinery Ltd. Apart from some saw frames now used as storage bays, none of the original mill features survive but now Brunel's building once again echoes to the sounds of sawing timber.

Clive Holden

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Singapore, 1942

If you, as I did, had the opportunity of viewing the recent four-part ITV adaptation of J. G. Farrell's novel *Singapore Grip*, you will doubtless recall the underlying theme of racism that prevailed on the island fortress. It was racism directed towards the Asiatic communities, especially the Chinese, a community some of whose members had already fought the Japanese in China and were more than willing to do so again. From their own experience, or the experiences of their friends and relatives,

they knew of the atrocities committed in China, and how members of the Chinese community in Singapore, especially those who had worked for the British colonial regime, would be treated.

So, what's all this got to do with naval dockyards and the *Dockyards* newsletter?

Simple. A large skilled ethnic Chinese workforce – some 2,500 in total – were employed in the British naval dockyard on Singapore Island, with a similar number in the service of firms under contract to the navy. Once the island fell, this massive workforce would be lost to the British Empire. Worse still, as many correctly feared, they would be slaughtered by the invading forces at the first opportunity. They and their families needed protecting, both on humanitarian grounds and to fill the labour shortage in other dockyards such as those of Sydney, Bombay and the Cape, not to mention more distant Malta and Gibraltar. Given the opportunity, the vast majority of those skilled Chinese workers would have jumped at the opportunity of getting safely out of Singapore to continue the fight against their mortal enemy.

Yet this group of highly skilled workers was simply abandoned, left to fend for themselves. Instead, those British overseas dockyards, already short of skilled workers by some 2,500, had to make good their deficiencies through receiving from Britain skilled workers from the already overstretched home yards.

Undoubtedly this failure to safely evacuate those skilled workers was a calamity of the first order – the Chinese, seemingly not worth the effort.

That something should have been done to save this most threatened of all ethnic groups was clearly apparent during the final months of 1941. By now, the possibility of Singapore being invaded was apparent, as it was also becoming clear that Hong Kong might fall. During the second week of December, it was reported from Hong Kong that the majority of Chinese, through being given no hint of possible evacuation, had already fled the dockyard. The same would inevitably happen, if the even larger dockyard workforce in Singapore was not given a guarantee of safety.

So why was no such guarantee given or even an attempt made to save that incredibly important but horrendously threatened skilled workforce?

The answer lies partly in the attitude of the British colonial administration, but also the perceived attitude of the now independent but former British colonies to which the Chinese workers would initially be sent – Australia and South Africa. The governments of both these countries, while united in their fight against Fascism, had entrenched fears that their own white ethnic populations would be weakened in some way by the arrival of these Chinese workers and their families. On 18 December 1941, the Director of Dockyards in London, Vice Admiral Sir Cecil Talbot (1884–1970), wrote:

The reception areas would be either Australia, India, Ceylon or South Africa. The first and last of these countries have hitherto held strong views on the subject of Asiatic labour and it would be little use to ship these men to Sydney or Durban only to have them refused admittance. The attitude of India and Ceylon on the other hand on the same subject is not known.

To give him his due, Talbot did see the situation of the Chinese workforce of pressing importance, seeing it as desirable to gather the views of the High Commissioners of Australia and South Africa, 'to ascertain which of any of these countries would be ready to receive Chinese workmen from Singapore in the hypothetical case of it being evacuated'.¹

In the event, no such approach was made, the Colonial Office refusing to approach either of the two High Commissioners, giving as their reason, 'not wishing to start trouble earlier and on a larger scale than might be necessary'.² However, what was seen as beyond controversy was the evacuation of both British white dockyard officers and chargehands, 'who would be valuable for the institution of new facilities (Addu Atoll, Sydney, Fremantle and Kilindini)'.³ The British considered the Chinese as incapable of organising and supervising themselves and lower in status than their white European counterparts.⁴

By the end of January 1942, when massive efforts were underway to evacuate Singapore, only very limited progress was being made on matters relating to the evacuation of the highly skilled Chinese dockyard labour force. In particular, European dockyard personnel were being moved to East Africa, but the Chinese were excluded on grounds of race, simply not wanted because of their ethnicity. India, however, was proving more welcoming, with thought also given to moving a few of the Chinese to the Persian Gulf, where naval facilities existed at Basra and Mina Salman. However,

prevarication continued, with white Europeans, irrespective of their skills, continuing to receive priority evacuation passes; the last evacuation ship leaving Singapore on 14 February with the island surrendering on the following day.

Since the first realization, back in December, that Singapore was unlikely to hold out and dockyard personnel needed, with great rapidity, to be moved elsewhere, not one single Chinese shipyard worker was given a pass. Furthermore, many of the Chinese community were ready and willing to fight alongside the British army, but were given little chance to do so, leaving it to the Malayan Communist Party to create a 5,000 strong Malayan Peoples' Anti-Japanese Army. Upon the entry of Japanese forces into Singapore, the Chinese were immediately targeted by the Kempaitai, the Japanese military police, who saw all Chinese on the island as dispensable. Since the annexation of Manchuria in 1931, there had been numerous atrocities committed by the Japanese in China, with no hesitation to the continuance of this behaviour in any of the conquered states where they were to find a Chinese community. Within a period of six weeks following the fall of Singapore, an estimated 50,000 Chinese were taken to remote corners of the island and either shot or beheaded, including those who had once worked in the dockyard.

The total abandonment of the Chinese community in Singapore by the British colonial authorities, an ethnic group that formed 75 per cent of Singapore's population, resulted in serious consequences. Having proved, on a spectacular scale, the extent of their prejudice against other races, the British colonial authorities were unable to return to Singapore after the war on their own terms. Instead, they were to face a much-strengthened anti-colonial and nationalist movement, epitomised by a sharp growth in membership of the Communist Party of Malaya (CPM) and the need, in June 1948, to declare a State of Emergency and a bitterly fought conflict.

Dr Philip MacDougall

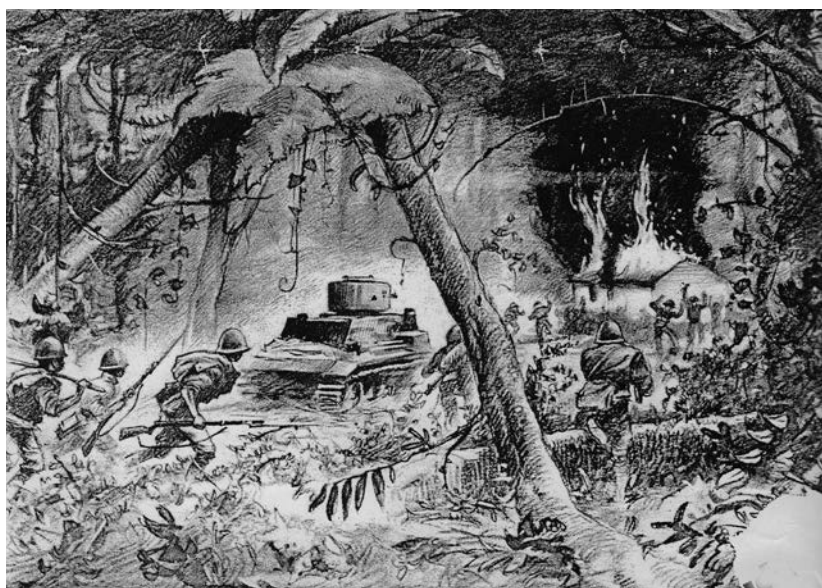
Illustrations

(author's collection)

The fall of Singapore as represented in two anti-British propaganda drawings produced in Portugal during 1942. The Portuguese text reads, in each case:

Ruptura Japonesa através do mato virgem em direção a Singapura (The Japanese break through the virgin forest towards Singapore).

Entrada das tropas japonesas em Singapura (Entry of Japanese troops into Singapore).



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The Royal Canadian Navy Monument, Ottawa

Canada's naval heritage is closely related to the British Royal Navy, which underwrote the country's creation and survival in the face of a century of early US hostility. With peace secured to the south, and national expansion west and north leading to a 'Three Ocean' awareness, a growing Canadian sense of naval self-responsibility led towards the foundation of the Royal Canadian Navy in 1910. In close collaboration with the RN (to which Canada continued to contribute – see Stafford, 2021), the RCN made a major contribution during the world wars; perhaps most memorably with the corvettes which defended the Second War's Atlantic convoys. In Halifax harbour is conserved the last surviving corvette, HMCS *Sackville* (see hmcssackville.ca). Subsequently, as a NATO member, Canada has continued to assert a modest but significant naval presence in Europe, the Middle East and elsewhere.

Thus the creation of a centennial monument to the RCN around 2010 was entirely fitting. But why in Ottawa, far inland from tidal water? For this peculiarity Canada's sprawling geography could be blamed: unlike Portsmouth in the UK, Canada's main naval bases at Halifax, Nova Scotia, and Esquimalt, British Columbia (both inherited from the Royal Navy), are remote from the main national heartland, the Quebec–Windsor (Ontario) axis, where most 'consumers' of national monuments are located. The early Great Lakes bases, opposing the US as in the War of 1812, were along this axis; but they were installations of the sailing RN, which long preceded the foundation of the RCN. In this central national location, the RCN has a museum presence in HMCS *Haida*, the only surviving Second World War 'Tribal' destroyer, moored at Hamilton on Lake Ontario. But while there are other naval museums and memorials elsewhere, the main formal representation of the RCN as an ongoing vital national institution falls to the national nerve centre of the navy and of defence, the federal capital Ottawa.

A naval monument in Ottawa and the particular location selected for it are not as incongruous as might at first appear. Canada has no formal federal capital district; instead, it has a limited-autonomy National Capital Region (NCR) extending widely around Ottawa and Gatineau, cities facing each other across the Ottawa River, respectively in (and otherwise controlled by) the provinces of Ontario and Quebec. In the NCR the federal government, through its National Capital Commission, has limited powers, mainly acquired by land purchase, for the – strictly bilingual – exercise of national government functions and presentation of national memorabilia, broadly in the context of beautification which has over the past century gradually manicured the Ottawa–Gatineau region into a 'silk purse' – out of the 'sow's ear' of an erstwhile lumber town (Ottawa being then known as Bytown). The innermost NCR, in particular, is an ongoing project of creating monuments and museums, in an extensive green (if seasonally white) space, intricately threaded with cycle and pedestrian paths.

In this project, the grandeur of the Ottawa River waterfront offers pride of place, overlooked by parliament buildings, which are flanked by historic military associations of the Rideau Canal and the War Museum. The site selected for the RCN Monument lies on the axis (walkable for many) between the War Museum and Parliament, which forms a striking backdrop to the Monument. However, the site, known as Richmond Landing, has a particular significance: it is a promontory just below the Chaudière Falls, and as such the highest point of navigation from the sea on the Ottawa River. Thus, it was a logical disembarkation point for settlers after the War of 1812, including demobilised veterans and their families, and therein acquired a national meaning and symbolic, if tenuous, link with the maritime world. As a site for the RCN Monument, such a promontory with water on three sides is further seen to symbolise the nation's three maritime faces onto the Atlantic, Arctic and Pacific Oceans.

The monument now occupying this historic and symbolic site was commissioned in 2009 by the National Capital Commission and the RCN in partnership. The design competition was won by a West Coast firm and the finished work was ready for its unveiling on 3 May 2012, in the presence of many naval personnel and the Prime Minister, Stephen Harper. A naval chaplain blessed the monument with water from Canada's three oceans, whereafter an elderly naval veteran christened it in maritime tradition with a bottle of champagne.

The RCN Monument with the Canadian Parliament in background. May 2012; as unveiled and before the wall was added.



The wall of ships' names, August 2021.

The wall of ships' names, detail.



The monument's iconography of course reflects its design details, as well as its inaugural rituals. It consists primarily of a grass amphitheatre focused upon a quasi-sail of white marble, its top reaching 5–8m in height and crowned by a gilded sphere. This central feature could represent a sail, a ship's hull, an iceberg or naval attire. On the 'sail', the motto 'Ready Aye Ready'/'Prêt Oui Prêt' reflects British tradition but also, with some irony perhaps, the Canadian endeavour to nationally reconcile the age-old global Anglo-French rivalry. On the opposite 'sail' face are inscribed the RCN's service honours, from the world wars and beyond. The 'sail' is set in a granite base, with an inlaid fouled-anchor symbol. Nearby is a white mast and rigging, capped by a gold sphere; adjacent to the mast, a low wall listing alphabetically the ships that have served the RCN was later added. The gilded spheres represent celestial bodies and the navy's global reach; while the overall white/black/gold appearance of the monument reflects RCN colours. Various details reflect the challenge to horizontality intrinsic in service at sea.

Thus the RCN has secured its place in Ottawa's assemblage of national icons. Its location on Richmond Landing is scenic and historic rather than dramatic; it was re-landscaped to mark Canada's hundred and fiftieth birthday in 2017 and, appropriately, provides a landing stage for the water-taxis which seasonally ply the Ottawa River. However, it constitutes a quiet corner to be discovered, its naval significance hopefully relayed to a population many of whose lives would otherwise be quite remote from the sea and issues of naval power. Apart from the War Museum, its environs



**A water-taxi
at the landing
stage below the
RCN Monument,
August 2021.**

do not speak to naval matters; its neighbour in the Ottawa River, Victoria Island, is concerned with commemoration of the Aboriginal people and (discordantly) industrial history, for both of which the Chaudière Falls were of central significance.

The RCN Monument needs to be understood as one of many elements in the national pantheon which have quite recently, and progressively still, been in process of creation in the heart of the capital city; for example, the Tomb of the Unknown Soldier, returned from France, was enshrined as recently as 2000. Canada is a major country, but – as the author can bear witness for over fifty-two years – a country still engaged in a gradual process of national postcolonial development.

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Gairloch and Loch Ewe, Wester Ross

We're all getting to know more about our own country, which is how in July our family went the furthest north in Scotland we've ever been, to Gairloch in Wester Ross, a most beautiful part of the Highlands with views across to Skye. Despite its isolation – there were no roads to the area until 1849 – we had no idea of how strategically important it was in both world wars. As we explored the area, local history publications by Steve Chadwick and Jeremy Fenton deepened our understanding. This article is based on the information they provided.

In the First World War, Loch Ewe was used as an alternative anchorage and refuelling base for the Grand Fleet to Scapa Flow because of its deep sheltered water. Admiral Sir John Jellicoe considered that there were too many channels that might be used by U-boats at Scapa Flow.¹ Royal Marines landed at Aultbea and in August 1914 a small battery and War Signal Station were built. Guard ships HMS *Goliath* and *Illustrious* were stationed there, and on 24 September 1914 Churchill as First Lord of the Admiralty visited the fleet at Loch Ewe where he attended a 'war conference' aboard the flagship the *Iron Duke*.



At the start of the Second World War it became the reserve base for the Home Fleet, but although Loch Ewe was less exposed to air attack than Scapa Flow, it took a whole day for ships to get to the northern part of the North Sea. It was even less protected against submarines. It only had indicator nets and no gate, and no shore defences. The battleship HMS *Nelson* was badly damaged in December 1939 when she detonated a magnetic mine laid by U-31 as she entered the loch; HMS *Promotive* and HMS *Glenalbyn* were sunk.² From January 1941 Loch Ewe was established as the gathering point for convoys to the USA and from February 1942 to Russia. The whole area was militarised, subject to tight restrictions. Identity cards were needed and checkpoints or barriers were set up, hotels and other buildings were requisitioned, and concrete installations were built around the loch. Camps were set up for detachments of foreign troops including Poles, Indians and Hondurans. The Polish soldiers worked on the roads and vehicle maintenance, while an Indian regiment with their mules supplemented its food supply by catching sheep to eat and collecting mushrooms in the woods.

“Until 1945 life was very strange: the world had come to the area, but at the same time it was locked-down and isolated. One small

part of it became notorious: Gruinard Island was considered sufficiently ‘remote’ to be used for Porton Down’s experiments with anthrax.”³

“Fearing that the Germans were developing biological weapons, scientists tested to find whether a microbe could withstand being detonated in a bomb. Anthrax bacillus was exploded over tethered sheep and cows and a Wellington bomber dropped a small bomb containing more anthrax. The deadly bacillus survived, but the animals died and were buried by detonating the cliff over their bodies. ‘The area was alive with rumours’ and a dead sheep floated ashore and infected local ones. The Porton Down scientists estimated that just a few ounces would kill a battalion of 800 men. They discovered that anthrax spores would live in the soil for 100 to 1,000 years. In 1987 the government hired a contractor to decontaminate the 520-acre island by spraying it with a mixture of formaldehyde and seawater, removing some topsoil in sealed containers. In 1990 the MOD gave the island the all clear and it reverted to its original owners who had used it for overwintering sheep. Difficulty in transporting them on and off the island made overwintering impractical; it’s now left undisturbed.”⁴

Coastal defences were constructed: anti-aircraft positions, a balloon station, an observation/command post, a coastal battery of 6in naval guns at Cove, and an anti-submarine boom defence. Some of these defensive structures are still visible today. The Anti-aircraft Operations Room at Gairloch is now the local museum – as I explain below. The whole Aird peninsula was fenced off. The cinema was built outside the base in Aultbea so the locals as well as military personnel could enjoy it too. The normal 48-hour leave passes were impossible to use, so some military personnel took their leave at Pool House, the YMCA.



Gruinard Island anthrax warning, 1987. (Gairloch Museum)

Local people played an important part in the life of the naval base, acting as NAAFI workers, working in the busy post office which handled many telegrams and cables every day, crewing support vessels and taking in billeted soldiers and sailors. The base had a shipwright's workshop, marine equipment stores, a wharf and crane, guardhouse (and jail), electrical workshops, chapel, pay office, naval clothing store, captain's house, rum store, wardroom and living quarters for the crew, sick bay and the Wrens' quarters. The Gairloch Hotel became the naval hospital shortly after the outbreak of war. There were times during the war when military personnel outnumbered the local population by three to one.⁵ Night-time blackout was in force; there was no electricity in the area until the 1950s.

The Arctic Convoys

'Andrew Wrenn: "Churchill described the Soviet Union 'as a welcome guest at a hungry table.' He secured agreement from US President Roosevelt to supply the Soviet Union with war material under the existing Lend Lease agreement with Britain. The Soviet British Mutual Assistance Pact was signed on 12 July 1941.

"The older people of Aultbea talk of the time when the loch was black with ships and it seemed as if you could walk across the loch from one side to the other, moving from ship to ship. The vessels were gathering for that most feared of convoys, the Arctic run to Russia . . . Laden ships came round from the east coast of Britain, from American and from Canada to gather at the anchorage of Loch Ewe".⁶ The Russians were counting heavily on supplies from the west which could only reach them via the treacherous sea route through the Barents Sea into Murmansk – and the Germans were determined to stop the convoys via the U-boats of the German Arctic Flotilla. The convoys to Russia helped the Russians to turn the tide of the war earlier than might otherwise have been possible, but Winston Churchill called this route 'The worst journey in the world'. In total 481 merchant ships and over 100 naval escort vessels left Loch Ewe for Russia in a total of 19 convoys. Many hundreds of men died in the cold grey waters of the North Atlantic. For them, 'the enfolding arms of Loch Ewe and the outer isles fading into the distance was the last sight of land they had, before the Russian convoys exacted their terrible price paid in human lives.'⁷

Steve Chadwick's book has detailed accounts of the convoys, their escorts and their voyages. The Russian Arctic Convoy Museum – www.racmp.co.uk – set up with veterans' donated artefacts, memorabilia, photographs, uniforms and audio recordings is at Birchburn near Aultbea.⁸

The Highland Fieldcraft Training Centre, 1943–44

Advised by Dr Hahn of Gordonstoun School, in the winter of 1943 the army decided to toughen up its potential officers with what Lord Rowallan called 'a period of concentrated scouting'. Poolewe at the head of Loch Maree and Loch Ewe was chosen as the ideal coastal base for this training, with its mix of sea and mountains, complementing the Mountain and Snow Warfare Training Centre at Glen Feshie. There's a memorial plaque on the outside of Pool House in Poolewe, erected by those who experienced this rigorous training at the centre and at Glen Feshie.

Gairloch Museum, the former Anti-aircraft Operations Room (AAOR) Gairloch

'An imposing, though rather ugly, building, just set back from the main A832 Wester Ross coast road . . . built about 1952–1953 . . . part of the UK's defence system for the anticipated nuclear attack from Soviet Russia' is how the low white cube that is now the local museum is described in a leaflet on the building's history.⁹ Its severely functional bunker architecture in reinforced concrete was a standard design. Away from anticipated targets, it monitored air raids using information from radar stations.

In the centre was a double-height operations/plotting room overlooked by a viewing gallery, operating corridor and control cabins. The only openings were the two entrances, the ventilator grilles and the protruding ventilator flue on the roof above the plant rooms. Signals stations, staff facilities for male and female staff including rest and mess rooms and a NAAFI meant that the community within the bunker would have been completely self-contained, 'able to withstand weeks of isolation from the outside world, with back up batteries for the generators.' Many AAORs, once decommis-



Left:
Gairloch
Museum,
before
and after.
(Gairloch
Museum)



Right:
Gairloch
Museum,
interior.
(Gairloch
Museum)



sioned, found no other use. 'The inflexibility of their concrete structures, built to withstand bomb blast, posed big problems for conversion work and most left empty but too massive to demolish, deteriorated beyond alternative use.'

However, in this case, in the mid-1960s and 1980s it was redesignated as the area's civil defence centre, 'ready to support the continuation of government and services in the aftermath of the detonation of an atomic bomb'. As it neared completion in 1990 as a Standby Regional Emergency Centre, all work on civil defence buildings ceased after the collapse of the Soviet Union. It later served as the Roads Depot for Ross and Cromarty and then Highland Council, a use that ceased in 2017, with the local library occupying a temporary building in its grounds.

Despite its unpromising appearance the volunteers of the Gairloch Heritage Museum recognised its potential; the lease on their current building was running out. Architects drew up plans and the analysis needed to present a business case for a new heritage and learning centre and the council agreed to transfer ownership to the Gairloch & District Heritage Company as a community asset. Seven years later after local fund-raising and grants from more than twenty national, public and private organisations the AAOR was transformed into the new Gairloch Museum, opening in 2019.

The exterior has been given a shining white coat and a new entrance porch. These contrast dramatically with its unchanged brutalist interior with its massive steel blast doors and bare concrete walls and floors. Learning about the area's long history as a remote crofting and fishing community and its more recent roles in national defence in such a distinctive survivor of those dangerous times is both enjoyable and profoundly moving.

Dr Celia Clark

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- 4 Chadwick, p. 107.
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Light vessel LV14 at Gloucester

LV14 is a unique Light Vessel (LV) moored in Britain's most inland port of Gloucester; a cathedral city nestled in the heart of the famous Cotswolds. The vessel arrived in Gloucester Docks in October 2010 and since that time has become a defining feature and much-loved local landmark.

Formerly named *Spurn*, LV14 was commissioned and built on behalf of the Humber Conservancy Board (HCB) in the late 1950s. She has a fascinating history, from being stationed in the turbulent North Sea (1959–1985) to touring Great Britain with numerous owners, hosting a meditation centre and, most recently, reinvented as the UK's only stay-aboard Light Vessel.

Life at sea

LV14 HCB *Spurn* was built in 1958 by shipbuilders Cook, Welton and Gemmell of Beverley, in Yorkshire, England – ship's yard number 937. The ship was one of the last manned Light Vessels to be built and designed to a remarkably high specification to withstand the harsh weather conditions of the North Sea. Initial build cost in 1959 was £98,843.

On 3 June 1959, the HCB stationed the vessel five miles off Spurn Point, marking the entrance to the estuary of the River Humber. It was here that LV14 was anchored for over twenty-five years, providing navigation support, assisting the Coastguard, and collecting data for the Humber Coastal Report for The Shipping Forecast. Displacing 590 tonnes, LV14 is 114ft long and 26ft wide, with a draft of 12ft and required a crew of seven men: a master, one chief engineer, a wireless operator and four deck crew on a two-week shift pattern.

LV14 *Spurn* has no power to move, being towed to her 'station' by tug and remaining anchored for approximately two-year periods at a time. There is however a large engine room with three Gardner LW engines providing power for all activities on board, and also providing power for air compressors for the foghorn. A fourth Gardner engine provided the power for operating the windlass for the main and two additional anchors.



LV14 in Gloucester Docks.
(cottages.com)

The light tower in action.



Her defining feature is the resolute light tower, which stands an impressive 55ft above water level. Preserved within the lantern house at the top of the tower is one of only two remaining Fresnel lenses in the world to be installed on Light Vessels – and is coined ‘the invention that saved a million ships’. In good weather, LV14’s rotating lantern could be seen for over seventeen miles, emitting a triple flash every fifteen seconds. LV14 also features a unique diaphone foghorn, the only one like it in the UK. Located above the wheelhouse and operated by compressed air and a clock mechanism (still in place today), the foghorn gave a one-second blast every twenty seconds, which could be heard up to 2.5 miles away.

Having been a beacon of light and hope for almost three decades, *Spurn* was retired from service on Christmas Eve 1985 and replaced by a LANBY Navigational Buoy. The Light Vessel now features on the National Historic Ships Register.

Step aboard

Today, LV14 – now named ‘Sula’, meaning ‘little peace’ – is moored at Llanthony Wharf, just a tow-path stroll away from the restaurant quarter, outlet shopping mall, street markets and special events of Gloucester Quays. She is also one of the most unique, private holiday suites from which to explore the nearby world-famous Cotswolds, an Area of Outstanding Natural Beauty.

Guests make a grand entrance into The Humber Suite through beautifully restored teak doors and are welcomed by our stylish lounge–kitchen–diner. This is the perfect space to relax and unwind and enjoy an onboard dining experience, courtesy of our private chef. Below deck are two sumptuous cabins; our king cabin, the ‘59 Room’, named after the year LV14 went into service, and the ‘85 Room’, our cosy double cabin, named after the year she was retired. Each cabin includes a refreshment station with complimentary welcome pack; for that morning coffee, WIFI, towels and eco-friendly toiletries; all part of our commitment to green tourism.

Venture outside and you will find Sula’s best kept secret – a private sun deck with panoramic views, where guests can sit back, relax, drink in hand, and soak up the quayside atmosphere! A highlight of every stay is watching the sun go down and the stars come out, as this is the moment Sula truly comes to life and bathes guests in blue light from her carefully restored lantern house!

How to book

The Humber Suite welcomes up to four adults for a minimum of two nights. Book online at www.sulalightship.com or call 01452 416354 and receive an exclusive private tour. Onboard dining and concierge services are available on request.

Kimberley Seville

BOOK REVIEW

Barracks, Forts and Ramparts

Regeneration Challenges for Portsmouth Harbour Defence Heritage

Celia Clark & Martin Marks (Tricorn Books, 2020; 460pp; ISBN 9781912821648)

It has to be said, this is a difficult book to review. Extending to 460 pages and tipping the scales at just under two kilograms it could be described as quite heavy reading. Nevertheless, as the reader proceeds through the book they will be rewarded with an extraordinary, extensive and definitive account of its subject matter. Densely detailed, it represents a valuable addition to the literature of heritage. Especially so since it reflects the combined, extensive specialist experience of its two authors, whose knowledge of the subject is beyond question, and in the case of Dr Celia Clark (pictured overleaf), whose expertise contributes to the book a strong international perspective, as well as the benefit gained in saving much Portsmouth defence heritage herself.

As expected, there is detailed historical background to the subject matter of the book. The military and naval presence in what might be called the Portsmouth sub-region goes back centuries, stemming clearly from the benefits of the extensive natural harbour. Evidence of the Roman military presence is still to be detected at Portchester Castle at the top of the harbour. This predates the

construction of the first dry dock at Portsmouth, representing the birth of a future naval dockyard, by some fourteen hundred years. Military and naval activity with its concomitant development and occupation of specialised sites and buildings has continued apace over time. That activity and presence can properly be described as experiencing a rise and fall, especially over the last century and a half, and it is the fall part that generates the core narrative of the book.

In essence what the book illustrates is the effects of the run down of the occupancy by the services of an extensive estate. One whose portfolio has been, and still is, presided over politically by a highly influential, not to say controversial government department, the Ministry of Defence.

In the process of telling their story, the authors conscientiously work their way through a fascinating mix of sites and buildings, tracing their origins and specialist contribution to military and naval objectives along the way. No structure or site is too small to have been included in their brief. Even the WWII anti-invasion concrete lumps, the so-called 'dragon's teeth' found in the area, have mention. Whilst at the other end of the spectrum, the fate of the massive and extensive Palmerstonian chain of forts, dating from the 1860s and extending in a great defensive circle, landwards and seawards around the Portsmouth Naval Base, is also given due coverage.

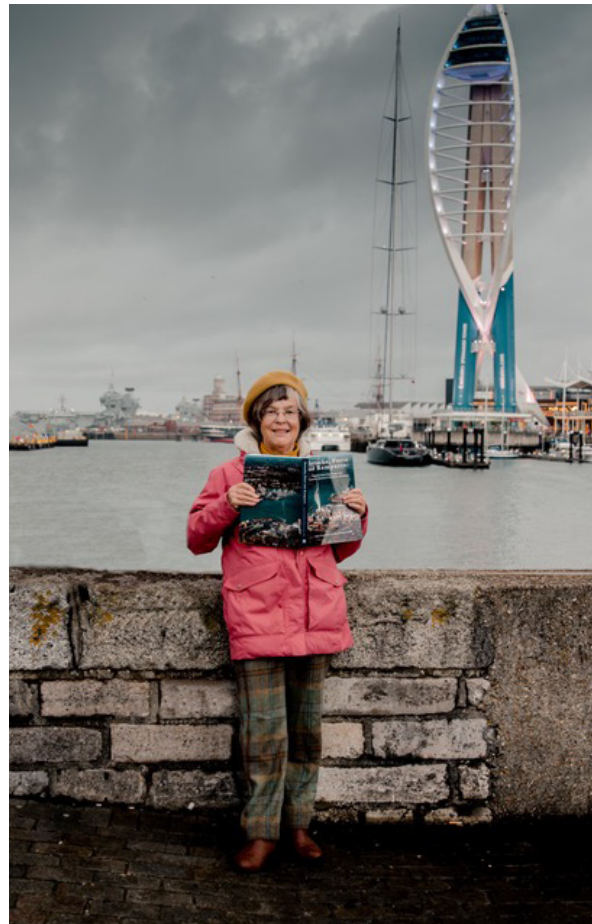
Vacation of sites by Service occupiers sets in train a sequence of processes. These eventually lead to what is somewhat glibly described as Regeneration. In reality, the term, like that of Sustainability, has so often represented an unfulfilled ambition rather than the achievement of a desired policy objective. Nevertheless, the replacement of activity on the sites under discussion is described and assessed in clear detail. In many cases this has been accompanied by controversy, as public concern is felt and expressed, not just by the adjacent local communities but also through the medium of Local Authority decision-making and contributions from appropriate Civic Societies. The reactions to closures are also amply covered.

There are some excellent case studies in the book. Complete chapters are devoted to what amounts to blow-by-blow accounts of reaction to the announced release by the MoD of surplus sites and their buildings.

Understandably local communities are often fearful of outcomes, expressing anxiety over the eventual impact of release of military estate. Powerful pressures are often brought to bear to capitalise on the availability of what are often highly lucrative opportunities for profit at shore-side sites. As the authors illustrate, such worries may often be justified, since after all Government agencies are urged by HM Treasury to maximise capital receipts, on sale.

The complexity of the factors influencing the change from service establishment to civilian uses is particularly well emphasised. One of the many factors influencing the way in which proposals are propounded and effected is the presence of Listing or Scheduling designations. These can be prejudiced by implementing re-development schemes. Just such a consideration prompted Gosport Borough Council to intervene in the case of Priddy's Hard, the former Royal Naval Ordnance Depot, vacated in the early 1990s, by acquiring a twenty-five-acre part of the site, with the aim of protecting the important late eighteenth-century magazine complex and stone-built camber.

A second factor likely to influence outcomes is the advent of publicity campaigns promoting



the cause of redevelopment proposals, facilitated perhaps through local exhibitions and meetings. Unfortunately, these are sometimes regarded by locals as mere public-relations exercises. Initiated by volume house-builders, these are seen as attempts to mollify and soften local resistance to their schemes.

Chapters are devoted to important locations in the Portsmouth area. In addition to the Priddy's Hard matter, these include accounts of the struggle to retain historic buildings and features at the Gunwharf site as well as the fate of the Royal Clarence Victualling Yard. These narratives examine, in fine detail, progress that was made towards sensible adaptive re-use and redevelopment objectives, but not without heritage losses it has to be said.

The magnitude of the changes in these situations can often result in a plethora of reports and assessments over the years. These get good coverage together with the accounts of occasional conferences which have focused on the problematic issues facing the landowner, i.e. the MoD, prospective purchasers/developers of sites and local communities.

The fate of the Royal Naval Hospital Haslar is given due significance. Insofar as it functioned virtually for two centuries for the purposes for which it had been designed, that is the treatment of Royal Navy personnel, it became an accepted historic presence in the area. However, local concern for its future was generated when, after taking on a complementary NHS role and while operating as a tri-service medical facility, the site with its listed buildings was earmarked for disposal. The processes leading to disposal are expertly covered by the authors, particularly so by Commander Marks, Dr Clark's co-author, since he played a key role in its final days, serving as the hospital's Executive Officer and then participating in presenting local concerns as Chair of the local Residents' Association.

The Haslar episode is a particularly interesting example in that strong objections to its proposed fate were expressed in a quite vociferous manner by a sizable proportion of the local population. Protests were accompanied by a march with thousands of demonstrators incensed by the threat of closure. At one point in the late 1990s this led to the extraordinary sight of a multitude of respectable Gosport citizens protesting in a local park.

Finally in assessing the book's credentials, for all its qualities, concern could be expressed about the book's index. In books of this size with such complexity of subject matter, this is a vital tool for the reader. Expressed simply, it's the key to finding your way around. Though the index is undoubtedly extensive and comprehensive, the reader will find it quite difficult to navigate. Major entries in its alphabetical list of subjects are followed by a score of page numbers, but with no indication which particular aspect of a site's history would be found when turning to that part of the book. With luck this deficiency will be addressed if the book goes to a revised or second edition.

Summing up, notwithstanding the foregoing reservations, the book can be highly recommended as a very valuable addition to the bookshelf. It certainly represents a highly informative complement to the literature on the subject. Beautifully presented, printed on high quality paper, set in a good font and with an attractive format and sound binding, it is also replete with a wealth of colour photographs, maps, plans and tables. These provide the reader with a substantial graphic background to the narrative element. Surely such a blessing in these times when there is so often a dearth of graphic support in learned tomes.

My overall impression when dipping into this book and encountering its considerable degree of detail, both in the text and through illustrations, was that it was a little bit like experiencing an over-rich pudding. In this case one that bulged with informative, factual ingredients. My suspicion is that this results from the authors' intentions, from the beginning, not to leave anything out. If so, while this is always such an admirable brief, it could be that the sieving effect of some skilled editing, with perhaps some judicious culling and re-ordering of contents here and there, would make its subject matter rather easier of access. This would render the undoubted lessons learnt by the authors, when dealing with very important aspects of heritage conservation, much more easily assimilated by the reader.

Notwithstanding such minor criticisms, the book represents an impressive achievement. It covers a great deal of ground, and in requisite fine detail in places. Resulting in a publication that assuredly can have few rivals in its realm either now or in the future. To be recommended wholeheartedly.

Jim Humberstone

HMS *Unicorn* at Dundee

I was very glad in early October 2021 to make a first visit to this interesting city. Home to two historic ships, HMS *Unicorn*, completed in 1824 and the third oldest ship in the world still afloat, and RRS *Discovery*, situated in a busier part of the city. *Discovery* is next to the V&A Dundee, the latter opened only in 2018.

After wandering around the interesting waterfront on the evening I arrived, I was glad to meet the Heritage Manager, Matthew Bellhouse Moran, for a very helpful briefing on *Unicorn*. This was particularly pertinent as the NDS had made a grant to the charity which owns and operated the ship, the Unicorn Preservation Society. Unfortunately, his colleague David Bradley could not join us as he had contracted Covid. Matthew is a recent arrival in Dundee, having joined from the Scottish Maritime Museum, where he had been curator.

In a good year, historically, *Unicorn* might attract twelve thousand visitors but had been closed at various points during the pandemic. Government support had thankfully been received but had ceased now and as with other museums, visitors' footfall had only recovered to approximately 60 per cent of pre-Covid levels.

Thankfully various helpful factors including plans for an Eden Project at a nearby brownfield location in Dundee mean that ambitious plans to preserve *Unicorn* for another two hundred years ('Operation Safe Haven') now look attainable. The charity plans to move *Unicorn* into the adjacent East Graving Dock; presently the gates to this are broken and the dock is full of water. However, it will be drained and Unicorn placed on a cradle. This will assist in conservation of the hull but has aroused a little local controversy as *Unicorn* can no longer boast of being the third oldest ship *afloat* worldwide. It was good to hear that there are high hopes of generous funding from a number of sources.

Matthew reminded me that the ship is comprised of 90 to 95 per cent of her original oak timbers but the exterior of the hull is in poor condition in parts. Otherwise, she is in surprisingly good condition for her age (she was launched in 1824). Matthew told me the ship had never been fully modernised or rebuilt, having previously been a drill ship at Dundee since 1873. A thorough survey has though recently been undertaken by T. Nielsen & Co. to confirm the exact condition of all parts of the hull. She has not been in dry dock since the 1970s.

The pump house to the eastern graving dock will be refurbished to be part of an onshore museum complex, built to modern standards, on the shore side. This will be a Dundee maritime heritage centre.

I suggested there was room in the graving dock for another ship and Matthew agreed, reminding me of the historic former North Carr lightship, also in the Victoria Dock. She looked a little forlorn but should look her best again with a new coat of paint. Built in 1933, she is the only survivor of the Northern Lighthouse Board's light vessels and is owned and operated by the Taymara charity, which also owns some smaller vessels locally such as the 1966 launch *Marigot*.

There is much local interest in *Unicorn*; recent crowdfunding has raised around £20,000. There is little 'passing trade' at present as there is no through route past the end of the dock but this will change when a footbridge at the east dock is reconnected and the Eden Project opens, as visitors to this will pass by *Unicorn*.

The next morning, I looked forward very much to visiting *Unicorn*. The first stop for any visitor should be the excellent ten-minute video, in a shoreside facility. This explains the construction in particular of the ship, including the radical system of diagonal bracing straps or 'riders' bolted to the inside of the hull, producing a far more rigid structure. This was devised by Sir Robert Seppings. Four decks are open for viewing although with my rucksack and aged frame, I struggled a little to



Matthew Bellhouse Moran.

move around the lowest orlop deck. The decks otherwise are spacious and have a number of very interesting exhibits. There include a film about the Wrens (Women's Royal Naval Service); over 1,500 Wrens trained on *Unicorn* between 1940 and 1945. The captain's cabin is also impressive with nice Georgian furniture.

Well worth a visit, a fascinating ship.

Richard Holme

**Right: HMS *Unicorn*:
the bows and bowsprit.**



**Left: HMS *Unicorn*:
the figurehead; a modern
replica fitted in 1979.**

**Right: HMS *Unicorn*:
Sir Robert Seppings'
elliptical stern.**



OBITUARY

James H. Thomas BA, PhD, FRHistS, FSA, FHA

James died on 30 August 2021 aged seventy-four. Principal Lecturer, then Reader in History at the University of Portsmouth, James taught for over fifty years before retiring three years ago. Complementing this, he researched Portsmouth's local and maritime development, writing six books and over a hundred journal articles. He also coordinated events for the Portsmouth Historical Association. Many mature students on the then Polytechnic Local History Diploma benefitted from his wealth of knowledge.

His writings include *The Seaborne Trade of Portsmouth, 1650–1800* (Portsmouth Paper 40, 1984); *Portsmouth and the First Fleet 1786–1787* (Portsmouth Paper 50, 1987); 'County, Commerce and Contacts: Hampshire and the East India Company in the Eighteenth Century' (*Proc. Hampshire Field Club Archaeol. Soc.*, 68, 2013, 169–177).

A founder member of the Naval Dockyards Society, he will be remembered as a 'Great' of Portsmouth history.

Dr Ann Coats

Ship's screw on a railway truck

This was painted in 1940 at Chatham by Eric Ravilious (1903–42) shortly after he became an official war artist. Given the rank of captain in the Royal Marines, Ravilious was dispatched to Chatham where 'he enjoyed the camaraderie of life in the armed forces while struggling with the niceties of naval etiquette. He had never liked painting in front of a crowd, and so went off to the remote corners of the dockyard in search of subjects and the peace in which to paint them.'

Having said that, it is difficult to visualise which part of the dockyard at Chatham is pictured here. The expanses of water suggest it must be in the great Victorian extension, but the picture shows few buildings and an air of desolation.



What about the propeller? It is thought to be ready to be fitted to a destroyer. Described otherwise as 'newly forged at one of the foundries nearby, and waiting to be fitted, the propeller is at once massive and delicate. It glows in the winter dark as if lit from within, colour faintly scattering like pollen from its blades.'

We thank the Ashmolean Museum at Oxford for permitting us to reproduce this interesting painting. Please let me know any thoughts you may have it.

Richard Holme

References: The two quotes are from James Russell, *Ravilious* (Dulwich Picture Gallery, 2015).

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