# Nelsons 'Victory' Revealed HMS Victory 1803 - 1806 The ship during the Campaign of Trafalgar



A Private Research Paper - The search for Nelson's Victory An investigation into the appearance of HMS Victory at Trafalgar

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This work is not for sale or resale.

# HMS Victory 1803 - 1806 What she really looked like at Trafalgar

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# **HMS Victory**

At Chatham I hired a boat to see the men of war, which are there in great numbers. I sketched the Victory in three views. She was the flower of the flock, a three decker of (some say) 112 guns. She looked very beautiful fresh out of Dock and newly painted. When I saw her they were tending sails which circumstance, added to a very fine evening, made a charming

John Constable



Figure 1: HMS Victory entering Portsmouth by William Joy 1844 Norwich Museum\*

<sup>\*</sup> The '*Victory*' that Joy portrays is, as we shall see, one of the closest semblances to *Victory* of Trafalgar under sail that exists, the ship is incorrect in having the round bow, but from the viewpoint of the observer this is not immediately discernible.

# **Bibliography**

### **General Publications**

Adkin, Mark. The Trafalgar Companion: A Guide to History's Most famous Sea Battle and the Life of Admiral Lord Nelson. London, Aurum Press Ltd. 2005.

Ballantine, Iain and Eastland, Jonathan. HMS Victory; First Rate 1765. Seaforth Publishing. 2011.

Ballantyne, Iain and Eastland, Jonathan. Warships of the Royal Navy: HMS Victory. Pen and Sword Books. Lee Cooper Ltd. 2005.

Beatty MD, William. Authentic Narrative of the Death of Lord Nelson. Third Edition 1825.

Blake, Nicholas. Steering to Glory; A Day in the Life of a Ship of the Line. London, Chatham Publishing. 2005.

Bowen, John & Robson, Martin. 2011 Shipwright; the International Annual of Maritime History & Ship Modelmaking. London, Conway Maritime Press. 2010.

Broadley, AM & Bartelot, RG. Three Dorset Captains at Trafalgar: Thoms Hardy, Charles Bullen, Henry Digby. London, John Murray. 1906.

Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966.

Burney, William. Falconer's New Universal Dictionary of the Marine 1815 Edition. London, Chatham Publishing. 2006.

Callender, Sir Geoffrey Arthur Romaine. The Story of the "Victory". London, Thomas Nelson & Sons. 1914.

Carr Laughton, LG. Old Figure-Heads and Sterns. Mineola, Dover Publications. 2001.

Caruana, Adrian. The History of English Sea Ordnance 1523 – 1875: Volume II – The Age of the System 1715 – 1815. Rotherfield, Jean Boudriot Publications. 1997.

Clarke, John D. The Men of HMS Victory at Trafalgar. Eastbourne, Vintage Naval Library. 1999.

Clowes, William Laird. The Royal Navy, A History from the Earliest Times to The Present (Volume V). Alpha Editions. 2021.

Cole, Gareth. Arming the Royal Navy, 1793 – 1815: The Office of Ordnance and the State. Oxon, Routledge. 2012.

Custance, Admiral Sir Reginald. The Ship of the Line in Battle. London, W Blackwood & Sons. 1912.

Czinsnik, Marianne. Horatio Nelson; A Controversial Hero. London, Hodder Education. 2005.

Fenwick, Kenneth. H.M.S. Victory. London, Cassell. 1959.

Fincham, John. A History of Naval Architecture. London, Scolar Press. 1979.

Fremantle, Alan Frederick. Trafalgar. Manchester, Sherratt & Hughes for Peter Davies Ltd. 1933.

Gale and Ponden Photographs entitled 'HMS Victory – The Aft Deck' appear in early 20th Century editions of 'Nelson's Victory. Portsmouth, Gale and Polden Ltd.

Gardiner, Robert. Frigates of the Napoleonic Wars. London, Chatham Publishing. 2000.

Gardiner, Robert. Warships of the Napoleonic Era. London, Chatham Publishing. 1999.

Goodwin, Peter. HMS Victory; 1765-1812 (First rate ship of the line) Haynes Owners' Workshop Manual. Yeovil, Haynes Publishing. 2012.

Goodwin Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served. London, Conway Maritime Press. 2002.

Goodwin, Peter. Admiral Nelson's Warship at Trafalgar: HMS Victory – Pocket Manual 1805. Croydon, Bloomsbury Publishing Ltd. 2015.

Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 – 1850. London, Conway Maritime Press. 1987.

Goodwin, Peter. Thesis 'The Influence of Industrial Technology and Material Procurement on the Design, Construction and Development of H.M.S. Victory'. University of St Andrews. 1998.

Great Britain Privy Council. Regulations and Instructions Relating to His Majesty's Service at Sea. London. 1790. Ulan Press.

Harland, John. Seaman in the Age of Sail: An account of the shiphandling of the sailing man-of-war, 1600 – 1860. London, Aldard Coles. 2020.

Harris, David. The restoration of HMS Victory in the twentieth Century. International Maritime Archaeology. 1995.

Hughes, Eleanor. Spreading Canvas: Eighteenth Century British Marine Painting: Nicholas Pocock: Accuracy and Agency. Italy, Yale Centre for British Art. 2016.

James, William. The Naval History of Great Britain; Volume IV – 1805 – 1807. London, Conway Maritime Press. 2002.

Jepsen, Palle Uhd. The Last Voyage. Thorsminde, Strandingmuseum St. George. 2019.

Knight, Roger. The Pursuit of Victory; The Life and Achievements of Horatio Nelson. London, Penguin. 2005.

Kriegstein, Arnold and Henry. Historic Ship Models of the Seventeenth and Eighteenth Centuries. Barnsley, Seaforth Publishing. 2021.

Lambert, Andrew. Nelson: Britannia's God of War. London, Faber & Faber. 2005.

Laughton, Professor John Knox. The Nelson Memorial. London, George Allen. 1896.

Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015.

Lavery, Brian and Stephens, Simon. Ship Models: Their Purpose and Development from 1650 to the Present. London, Philip Wilson Publishers Limited. 1995.

Lavery, Brian. The Arming and Fitting of English Ships of War 1600 – 1815. London, Conway Maritime Press. 1987.

Lavery, Brian. The Ship of the Line: A History in Ship Models. Barnsley, Seaforth Publishing. 2014.

Lees, James. The Masting and Rigging of English Ships of War. London, Conway Maritime Press. 2001.

Lever, Darcey. The Young Rea Officer's Sheet Anchor: Or a key to the Leading of Rigging and to Practical Seamanship. New York, Dover Publishing. 1998.

Lewis, Jon E. The Mammoth book of how it happened; Trafalgar; Over 50 first-hand accounts of the greatest sea battle in history. New York, Carrol & Griffin. 2005.

Lincoln, Margarette. Nelson & Napoleon. London, The National Maritime Museum. 2005.

Longridge, Dr C. Nepean. The Anatomy of Nelson's Ships. Somerset, Nexus Special Interests. 1955

Marquardt, Karl Heinz. Eighteenth-Century Rigs & Rigging. London, Conway Maritime Press. 2003.

May, WE. The Boats of Men-of-War. London, Chatham Publishing. 2003.

McGowan; Alan. HMS Victory; Her Construction, Career and Restoration. London, Chatham Publishing. 1999.

McKay, John. Anatomy of the Ship: The 100-Gun Ship Victory. London, Conway Maritime Press. 1995.

Mondfeld, Wolfram zu. Historic Ship Models. London, Argus Books. 1985.

Nicolas, Sir Harris Nicholas. The Dispatches and Letters of Lord Nelson; The Nicholas Edition. Volume VII August 1805 – October 1805. London, Chatham Publishing. 1998.

Nicolas, Sir Harris Nicholas. The Dispatches and Letters of Lord Nelson; The Nicholas Edition. Volume V January 1802 – April 1804. London, Chatham Publishing. 1998.

Padfield, Peter. Guns at Sea. Liverpool, The Garden City Press Limited. 1973.

Page, Anthony. Britain and the Seventy Years War 1744 – 1815: Enlightenment, Revolution and Empire. Palgrave, Bayswater. 2015.

Pascoe, Daniel. Archaeological evidence for the development of Royal Naval gunnery from 1545 - 1811; analysing change through technology and culture. Dissertation submitted in partial fulfilment of the requirements for the degree 'Doctor of Philosophy', awarded by Bournemouth University. 2021.

Peterson, Lenarth. Rigging Period Ship Models. Barnsley, Seaforth Publishing. 2011.

Rasor, Eugene L. The Seaforth Bibliography: A Guide to More Than 4,000 Works on British Naval History 55BC – 1815. Barnsley, Seaforth Publishing. 2004.

Rees, Abraham. The Cyclopaedia; or Universal Dictionary of Arts, Sciences and Literature. 1819 – 20. Newton Abbot, Davis & Charles. 1970.

Riding, Christine and Johns, Richard. Turner and the Sea. London, Thames & Hudson. 2014.

Rodger, N.A.M. The Command of the Ocean; A Naval History of Britain, 1649 – 1815. London, Penguin Books Ltd. 2004.

Simmons, Robert. The Sea-Gunners Vade Mecum. Sagwan Press. 1812.

Smyth, WH. The Sailor's Word-Book: An alphabetical digest of nautical terms. Tunbridge Wells, Solis Press. 2019.

Southey, Robert. The Life of Nelson 1814. London, Forgotten Books. 2018.

Steel, David. The Elements and Practice of Naval Architecture. London, P Steel. 1805.

Steel, David. The Elements and Practice of Rigging, Seamanship, and Naval Tactics. London, P Steel. 1806.

Stilwell, Alexander. The Trafalgar Companion. Oxford, Osprey Publishing. 2005.

Tracey, Nicholas. Britannia's Palette: The Arts of Naval Victory. McGill-Queen's Press. 2007.

Wessex Archaeology. HMS Victory Conservation Management Plan. 2014.

MSS 1374. West Sussex Archives. Stanhope Badcock, Midshipman William (Lovell). The account by

Midshipman William Stanhope Badcock (Lovell), on HMS Neptune, at the Battle of Trafalgar, 1805.

Wharton, Commander WJL, RN. A Short History of HMS Victory. Portsmouth, Griffin & Co. 1875.

Winfield, Rif. British Warships in the Age of Sail 1793 – 1817; Design, Construction, Careers and Fates. London, Chatham Publishing. 2005.

### **British Library**

The British Library. Manuscript 'MS 34920 f.306'. Memo from Lt. William Layman to Lord Nelson.

#### **Newspapers**

The Daily Mail. Duell, Mark. Nelson's flagship HMS Victory to show its true colours. 18 March 2014

The Guardian. Kennedy, Maev. Paint detectives uncover true colours of Nelson's victorious flagship. 17 March 2014

The Times. Rivers, NE. Letter. March 1878.

The Times. Walker, Captain James Robertson. Letter. 6th May 1853.

### **Naval Dockyards Society**

Goodwin, Peter. Transactions of the Naval Dockyards Society: Volume 1. Preparing HMS Victory and the Ships for Trafalgar. Southwick, The Naval Dockyard Society. 2011.

Lumas, Susan. Transactions of the Naval Dockyards Society: Volume 7. HMS Victory: Sightings in the Naval Dockyards Society's Navy Board Project. Southwick, The Naval Dockyard Society. 2011.

### The Mariner's Mirror

The Mariner's Mirror Volume 55 Issue 4. Pack, AJ. Note – The Figurehead of H.M.S. Victory at the Time of Trafalgar. 1969.

The Mariner's Mirror, Volume 43 Issue 3. Carr Laughton, LG. Quarter-deck and Forecastle Bulwarks. 1957.

The Mariner's Mirror. Volume 95 Issue 3. Cole, Dr Gareth. Royal Navy Gunners in the French Revolutionary and Napoleonic Wars. 2009.

The Mariner's Mirror. Volume 8 Issue 8. Fraser, Edward. Part IV of HMS Victory. 1922.

The Mariner's Mirror. Volume 38 Issue 4. Moody, JD. Old Naval Gun Carriages. November 1952.

The Mariner's Mirror. Volume 7 Issue 9. Roskruge R.N., FJ. 'The "Victory" After Trafalgar'. 1921.

The Mariners Mirror. Volume 83 Issue 1. Goodwin, Peter. The Fore Topsail of HMS Victory. 1997

The Mariners Mirror. Volume 9 Issue. 4. Watts, Sir Philip. Notes on the Preservation of H.M.S. "Vicory" and her Restoration to the Trafalgar Condition. 1923.

The Mariners Mirror. Volume 63 Issue 1. Harland, John H. Notes – Victory's Spritsail Topsail Yard and Dolphin Striker. 1977.

The Mariners Mirror. Volume 10 Issue 2. Carr Laughton, L.G. H.M.S. Victory; Report to the Victory Technical Committee of a Search Among the Admiralty Records. 1924.

The Mariners Mirror. Volume 11 Issue 1. Carr Laughton, LG. The Study of Ship Models. 1925.

The Mariners Mirror. Volume 91 Issue 2. Duffy, Michael. '..... all was hushed up': The Hidden Trafalgar. 2005.

The Mariners Mirror' Volume 85 Issue 3. Goodwin, Peter. Where Nelson Died: An Historical Riddle Resolved by Archaeology. 1999.

#### **The National Archives**

TNA ADM 106/121 - In-letters from the admiralty

TNA ADM 106/1819 - Letters from Chatham Officers to Admiralty 20th September 1802

TNA ADM 106/1820 - Letters from Chatham Officers to Admiralty 4th March 1803.

TNA ADM 160/150 – Proportion tables of ordnance stores for H.M. Ships. 1781 - 1828

TNA ADM 160/154 - Returns of ordnance on H.M. Ships. 1803 – 1812.

TNA ADM 51/1506 - Captains' logs, including: KENT (1804 July 25-1804 Nov 10).

TNA ADM 51/1467 - Captains' logs, including Victory (1803 Apr 11-1803 July 30)

TNA ADM 51/4514/1 - Part 1, Victory 31 July 1803 - 31 July 1804 by Thomas Masterman Hardy, Captain

TNA ADM 51/4514/2 - Part 2, Victory 1 August 1804 - 31 July 1805 by Thomas Masterman Hardy, Captain

TNA ADM 51/4514/3 - Part 3, Victory 1 August 1805 - 15 January 1806 by Thomas Masterman Hardy, Captain

TNA ADM 52/3711 - Masters' logs, including: Victory (1803 Apr 10 - 1806 Jan 16).

TNA WO 52-96 - Ordnance Office: bill books (Series III). 1796 - 1797

TNA WO 55/1833 - List of ships with particulars of ordnance. 1800 - 1805.

TNA WO 55/1834 - List of ships with particulars of ordnance. 1806 - 1809.

#### The National Museum of the Royal Navy

NMRN RNM 1986/573/11. Note and accompanying sketch of Midshipman Rivers.

NMRN RNM 1998/41/1. General notebook kept by Gunner William Rivers.

NMRN RNM 1998/41/3. Miscellaneous volume of notes kept by Lieutenant Rivers and his successors from 1805 to 1891.

### The Nelson Dispatch (Quarterly Journal of the Nelson Society)

The Nelson Dispatch. The Quarterly Journal of the Nelson Society. Volume 7 Part 1. Ryan, John. Book Review – HMS Victory: Her Construction, career and Restoration. 2000.

The Nelson Dispatch. The Quarterly Journal of the Nelson Society. Volume 7, Part 4. Addis, Lt Cdr Charles. The Fog of War. October. 2000.

The Trafalgar Chronicle (the yearbook of 'The 1805 Club)

The Trafalgar Chronicle, New Series 1. Conover, John. What did HMS Victory Actually look like at the Battle of Trafalgar. Barnsley, Seaforth Publishing. 2016.

The Trafalgar Chronicle. Piggott, JR. The High Raised Nelsonian Star: Turner, Nelson and the Royal Navy. Cranbrook The 1805 Club. 2008.

The Trafalgar Chronicle, New Series 4. Smith, Susan K. The Summer before Trafalgar: The Journal of Benjamin Silliman. Barnsley, Seaforth Publishing. 2019.

The Trafalgar Chronicle, New Series 2. Zerbe, Britt. That Matchless Victory: Trafalgar, the Royal Marines and Sea Battle in the Age of Nelson. Barnsley, Seaforth Publishing. 2017.

Trafalgar Chronicle. Addis, Charles. Victory by Constable: A Rejoinder. Cranbrook The 1805 Club. 2006.

Trafalgar Chronicle. Brooks, Robin. Victory in Art and the Constable Sketches. Cranbrook The 1805 Club. 2005.

# References – Endnotes

For comprehensive publication referencing also see the Bibliography (supra).

## Introduction

- <sup>1</sup> The Campaign of Trafalgar in this work is taken to mean 1803 to 1805.
- <sup>2</sup> The Mariners Mirror. Volume 10 Issue 2. Carr Laughton, L.G. H.M.S. Victory; Report to the Victory Technical Committee of a Search Among the Admiralty Records. 1924. pages 173 211.
- <sup>3</sup> Abstract taken from Wikipedia: In the study of history as an academic discipline, a Primary Source (also called an original source or evidence) is an artefact, document, diary, manuscript, autobiography, recording, or any other source of information that was created at the time under study.

Primary sources are distinguished from secondary sources, which cite, comment on, or build upon primary sources. Generally, accounts written after the fact with the benefit (*and possible distortions*) of hindsight are secondary. A secondary source may also be a primary source depending on how it is used. For example, a memoir would be considered a primary source in research concerning its author or about his or her friends characterised within it, but the same memoir would be a secondary source if it were used to examine the culture in which its author lived. "Primary" and "secondary" should be understood as relative terms, with sources categorised according to specific historical contexts and what is being studied.

<sup>4</sup> 19<sup>th</sup> Century naval historian (William James, n.d.)

## HMS Victory Today

- <sup>5</sup> This Broadside view adopts the lines of the *Boyne* (*Victory*'s half sister which was itself taken directly from the refit plans for *Victory* in 1801), and overlain with the Lower, Middle and Upper Deck gunport arrangements of the original 1765 plans. All other aspects are detailed throughout this work.
- <sup>6</sup> Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966. Page 1.
- <sup>7</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 182.
- <sup>8</sup> LG Carr Laughton was also acknowledged as one of the major driving forces behind the foundation of the Society for Nautical Research and was editor for the SNR of The Mariner's Mirror from its inception until 1913.
- <sup>9</sup> The Mariners Mirror. Volume 10 Issue 2. Carr Laughton, L.G. H.M.S. Victory; Report to the Victory Technical Committee of a Search Among the Admiralty Records. Pages 173 – 211.
- <sup>10</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 182.
- <sup>11</sup> The Mariners Mirror. Volume 10 Issue 2. Carr Laughton, L.G. H.M.S. Victory; Report to the Victory Technical Committee of a Search Among the Admiralty Records. Laughton dates the model as 1802.
- <sup>12</sup> *Ibid.*
- <sup>13</sup> This term *'topgallant forecastle'* probably relates to a short flying forecastle added to *Victory* sometime in the 19<sup>th</sup> Century as evidenced in contemporary photographs.
- <sup>14</sup> Goodwin, Peter. Thesis 'The Influence of Industrial Technology and Material Procurement on the Design, Construction and Development of H.M.S. Victory'. University of St Andrews. 1998. Records that whilst this issue was discussed at the time it was "deferred until the Dockyard had assessed estimates to make the alteration .... Work had already been undertaken to fit the open bulwark, the proposal to fit built up bulwarks at the forecastle were rejected on the grounds that additional work was to cost £382".
- <sup>15</sup> Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966. Page 48.
- <sup>16</sup> The Mariners Mirror. Volume 9 Issue. 4. Watts, Sir Philip. Notes on the Preservation of H.M.S. "Vicory" and her Restoration to the Trafalgar Condition. 1923 The Mariners Mirror. Volume 9 Issue. 4. Watts, Sir Philip. Notes on the Preservation of H.M.S. "Vicory" and her Restoration to the Trafalgar Condition. 1923.
- <sup>17</sup> Lambert, Andrew. Nelson: Britannia's God of War. London, Faber & Faber. 2005. Paghe 349.
- <sup>18</sup> The 2020 Covid-19 pandemic exposed the finely balanced cash position of the NMM with the enforced lockdown and consequent reduced revenues bringing them to the brink of insolvency had the UK Government not stepped in with financial aid.

### Marine Artists

- <sup>19</sup> 22<sup>nd</sup> November 2015 https://modelshipworld.com/topic/12051-hms-Victory-trafalgarforecastle/?tab=comments#comment-365376
- <sup>20</sup> Translates as 'Book of Studies' a collection of prints by Turner which included 71 prints that he worked on and printed from 1807 to 1819. Turner created the etchings of the prints, which were worked in mezzotint by his engravers, mainly in sepia watercolour, sometimes with elements in pencil and other media. Altogether there are over 100 paintings relating to the series, included some not published, are now in Tate Britain as part of the Turner Bequest.
- <sup>21</sup> Tracey, Nicholas. Britannia's Palette: The Arts of Naval Victory. McGill-Queen's Press. 2007. Page Tracey, Nicholas. Britannia's Palette: The Arts of Naval Victory. McGill-Queen's Press. 2007. Pages 285 & 286.
- <sup>22</sup> The Trafalgar Chronicle. Piggott, JR. The High Raised Nelsonian Star: Turner, Nelson and the Royal Navy. Cranbrook The 1805 Club. 2008.
- <sup>23</sup> Lincoln, Margarette. Nelson & Napoleon. London, The National Maritime Museum. 2005.
- <sup>24</sup> Page, Anthony. Britain and the Seventy Years War 1744 1815: Enlightenment, Revolution and Empire. Palgrave, Bayswater. 2015. Page 168.
- <sup>25</sup> The guns were removed between 25<sup>th</sup> and 29<sup>th</sup> December 1805
- <sup>26</sup> Painter and historian who published several books on the works of Turner.
- <sup>27</sup> This simple statement records the fact that Constable recorded the *Victory* immediately after her last refit prior to Trafalgar, from this point she would change little.
- <sup>28</sup> Hughes, Eleanor. Spreading Canvas: Eighteenth Century British Marine Painting: Nicholas Pocock: Accuracy and Agency. Italy, Yale Centre for British Art. 2016
- <sup>29</sup> Wikipedia
- <sup>30</sup> Reproduced under Yale University Policy: Open Access to Digital Representations of Works in the Public Domain from Museum, Library, and Archive Collections
- <sup>31</sup> Inventor the Manby Mortar later developed into the breeches buoy that fired a thin rope from shore into the rigging of a ship in distress.

### Literature Appraisal

- <sup>32</sup> Rodger, N.A.M. The Command of the Ocean; A Naval History of Britain, 1649 1815. London, Penguin Books Ltd. 2004.
- <sup>33</sup> Credit has to be given to the SNR who since the time of Carr Laughton has fostered the drive for research shedding light on naval history.
- <sup>34</sup> The Nelson Dispatch. The Quarterly Journal of the Nelson Society. Volume 7 Part 1. Ryan, John. Book Review – HMS Victory: Her Construction, Career and Restoration. 2000.

### The Models

- <sup>35</sup> Lavery, Brian and Stephens, Simon. Ship Models: Their Purpose and Development from 1650 to the Present. London, Philip Wilson Publishers Limited. 1995. Pages 17 & 18.
- <sup>36</sup> TNA ADM 106/1820 Letters from Chatham Officers to Admiralty 4th March 1803.
- <sup>37</sup> TNA ADM 106/1819 Letters from Chatham Officers to Admiralty 20th September 1802.
- <sup>38</sup> Gardiner, Robert. Warships of the Napoleonic Era. London, Chatham Publishing. 1999. Page 7.
- <sup>39</sup> The Trafalgar Chronicle, New Series 1. Conover, John. What did HMS Victory Actually look like at the Battle of Trafalgar. Barnsley, Seaforth Publishing. 2016.
- <sup>40</sup> NMM Citation: "Scale: 1:48. A contemporary full hull model of the Victory (1765), a 100 gun first rate, threedecker ship of the line. Model is decked. <u>Depicted after extensive refit</u> (her so-called "large repair") <u>completed</u> <u>in 1803</u>, prior to the Battle of Trafalgar. Model also shows <u>further modifications which were proposed after</u> <u>Trafalgar which were not carried out</u>."
- <sup>41</sup> See Robert Dodd and Monamy Swaine paintings below.
- <sup>42</sup> The Mariners Mirror. Volume 11 Issue 1. Carr Laughton, LG. The Study of Ship Models. 1925. Page 9 that from 1800 "*Replacement of the old drift and fife rails by high solid bulwarks*", although he does not mention the source it is likely to be by way of an Admiralty Order.
- <sup>43</sup> NMM citation reads "Scale: 1:48. A contemporary(?) half block design model of the HMS Victory (1765), a first rate, 100 gun three-decked ship of the line. Date made circa 1800-03(?)"
- <sup>44</sup> Goodwin, Peter. Transactions of the Naval Dockyards Society: Volume 1. Preparing HMS Victory and the Ships for Trafalgar. Southwick, The Naval Dockyard Society. 2011
- <sup>45</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 102.

- <sup>46</sup> Goodwin Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served. London, Conway Maritime Press. 2002. Page 250.
- <sup>47</sup> Some of these points not specific to the side elevation will be discussed in subsequent sections of this paper.
- <sup>48</sup> This correlates with the NMM citation appended to the 1805 model – this works suggests one theory that the 1803 refit was given insufficient time to allow the full structural modifications to be made such as the closing up of the 16<sup>th</sup> Gunport or reconfiguration of the Transom stern
- <sup>49</sup> Tate ref: D05486. *The 'Victory': Fore Part of Starboard Side* 1805. Citation "Together with the port-side view of the *Victory* on folio 18 (D05489; Turner Bequest LXXXIX 30), perhaps another on folio 17 (D05487; Turner Bequest LXXXIX 29) and the sky study on folio 17 verso (D05488), this is probably the origin of Turner's picture showing Nelson's flagship in three positions, from port, starboard and bows, usually known as *The Victory Returning from Trafalgar*, possibly shown in Turner's Gallery in 1806, and bought by Walter Fawkes (Yale Center for British Art, New Haven, Connecticut). See Introduction to the sketchbook for discussion of the picture, its title and subject matter. Turner also made a drawing of a similar composition, probably intended for engraving in the *Liber Studiorum* but not used (Tate D08183; Turner Bequest CXVIII c)."

<sup>50</sup> Tate ref: D05487 The 'Victory': Port Side, Smaller Vessels Alongside 1805. Citation ''Faded from exposure in the First Loan Collection. Finberg's entry, written when the leaf was out of the book on this national tour, noted; 'Probably connected with the subject of ''Nelson'', if not actually one of the leaves of this sketchbook'. Despite Finberg's reservations, the leaf surely belongs to this sketchbook.

Finberg's note must refer to Turner's picture The Battle of Trafalgar, as Seen from the Mizen Starboard Shrouds of the Victory (Tate <u>N00480</u>), <u>1</u> exhibited at Turner's Gallery in 1806, for which see the Introduction to this sketchbook. The more likely connection, together with the starboard view of the Victory on folio 16 verso (<u>D05486</u>; Turner Bequest LXXXIX 28a), another port-side study on folio 18 (<u>D05489</u>; Turner Bequest LXXXIX 30) and the sky study on the verso (<u>D05488</u>), is with The Victory Returning from Trafalgar, also possibly shown in Turner's Gallery in 1806 (Yale Centre for British Art, New Haven, Connecticut). <u>2</u> See Introduction to the sketchbook and entry for <u>D05486</u> for the picture and associated work.

- In this drawing, Turner concentrates on the bows, deck and stern and shows smaller vessels alongside."
- <sup>51</sup> Trafalgar Chronicle. Brooks, Robin. Victory in Art and the Constable Sketches. Cranbrook The 1805 Club. 2005.
- <sup>52</sup> Carr Laughton, LG. Old Figure-Heads and Sterns. Mineola, Dover Publications. 2001. Page 272.
- <sup>53</sup> Some sources suggest that the Poop and forecastle were variously armed with 18, 24 & 32 pdr carronades after the refit. See as noted Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served notes at page 249 the vacillating armament of *Victory*.
- <sup>54</sup> Goodwin, Peter. Thesis 'The Influence of Industrial Technology and Material Procurement on the Design, Construction and Development of H.M.S. Victory'. University of St Andrews. 1998. Page 84.
- <sup>55</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 128.
- <sup>56</sup> Burney, William. Falconer's New Universal Dictionary of the Marine 1815 Edition. London, Chatham Publishing. 2006.
- <sup>57</sup> The term '*deal*' refers to a softwood such as pine or fir.
- <sup>58</sup> Burney, William. Falconer's New Universal Dictionary of the Marine 1815 Edition. London, Chatham Publishing. 2006. Page 351.
- <sup>60</sup> Harland, John. Seaman in the Age of Sail: An account of the shiphandling of the sailing man-of-war, 1600 1860. London, Aldard Coles. 2020. Page 210.
- <sup>61</sup> Mondfeld, Wolfram zu. Historic Ship Models. London, Argus Books. 1985. Page 177.
- <sup>62</sup> Lever, Darcey. The Young Rea Officer's Sheet Anchor: Or a key to the Leading of Rigging and to Practical Seamanship. New York, Dover Publishing. 1998.
- <sup>63</sup> Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966. Page 129.
- <sup>64</sup> Steel, David. The Elements and Practice of Naval Architecture. London, P Steel. 1805.
- <sup>65</sup> This figure from Steel has been reproduced.
- <sup>66</sup> The contrast of this picture has been digitally increased from the original so as to enhance the detail, the picture has not otherwise been altered.
- <sup>67</sup> Rees, Abraham. The Cyclopaedia; or Universal Dictionary of Arts, Sciences and Literature. 1819 20. Newton Abbot, Davis & Charles. 1970.
- <sup>68</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987.
- <sup>69</sup> Lavery, Brian. The Arming and Fitting of English Ships of War 1600 1815. London, Conway Maritime Press. 1987. Page 54.

- <sup>70</sup> Goodwin, Peter. HMS Victory; 1765-1812 (First rate ship of the line) Haynes Owners' Workshop Manual. Yeovil, Haynes Publishing. 2012. Page 68.
- <sup>71</sup> Nicolas, Sir Harris Nicholas. The Dispatches and Letters of Lord Nelson; The Nicholas Edition. Volume V January 1802 – April 1804. London, Chatham Publishing. 1998.
- <sup>72</sup> Goodwin, Peter. Admiral Nelson's Warship at Trafalgar: HMS Victory Pocket Manual 1805. Croydon, Bloomsbury Publishing Ltd. 2015. Page 88.
- <sup>73</sup> Beatty MD, William. Authentic Narrative of the Death of Lord Nelson. Third Edition 1825. age 20.
- <sup>74</sup> James, William. The Naval History of Great Britain; Volume IV 1805 1807. London, Conway Maritime Press. 2002. Page 60
- <sup>75</sup> The guns were removed between 25<sup>th</sup> and 29<sup>th</sup> December 1805
- <sup>76</sup> Ballantine, Iain and Eastland, Jonathan. HMS Victory; First Rate 1765. Seaforth Publishing. 2011. Page 103.

### The Bow

- <sup>77</sup> Note the NMM Citation states "the body plan, altered sheer lines, and longitudinal half-breadth for 'Dreadnaught' (1801), a 98-gun Second Rate, three decker. The main alterations include enclosing the stern, altering the gunports on the Quarterdeck, adding an entry port, and modifying the bow". These alterations are the forerunner for the modifications to Victory's Bow and Stern.
- <sup>78</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Pages 185/6.
- <sup>79</sup> Ibid.
- <sup>80</sup> Tate citation: 'One of two large studies of the deck of the Victory; the other is Tate <u>D08275</u>; Vaughan Bequest CXXI S. Like most of the sketches in the Nelson sketchbook (Tate <u>D05446–D05490</u>; <u>D40701–D40705</u>; <u>D41427</u>; Turner Bequest LXXXIX) these were made when the Victory returned from the Battle of Trafalgar for repair; see Introduction to the sketchbook for her movements. This drawing is further confirmation that Turner went on board soon after she arrived at Long Reach off Sheerness, and before 1 January 1806 when de-rigging began, as her masts and rigging are still in place. However her guns normally twelve twelve-pounders on the Quarterdeck appear to have been removed already. As in several drawings in the sketchbook, Turner is looking over the starboard side of the Poop down to the Quarterdeck. The same view appears in Turner's picture, Battle of Trafalgar, as Seen from the Mizen Starboard Shrouds of the Victory(Tate, <u>N00480</u>), exhibited in Turner's Gallery, 1806; it overlooks the section of the Quarterdeck where Nelson was killed. In the 1974 Royal Academy catalogue, it is wrongly described as 'from' the Quarterdeck. The drawing shows several figures, unrelated to the picture and perhaps other visitors to the ship. Some appear to be women."
- <sup>81</sup> Fincham, John. A History of Naval Architecture. London, Scolar Press. 1979. Page 205.
- <sup>82</sup> Goodwin, Peter. Thesis 'The Influence of Industrial Technology and Material Procurement on the Design, Construction and Development of H.M.S. Victory'. University of St Andrews. 1998. Page 106.
- <sup>83</sup> Attributed to RNM 1994.128 by Iain Ballantyne and Jonathan Eastland in their '*HMS Victory*; Warships of the Royal Navy', page 159, but also see The Mariner's Mirror Volume 55 Issue 4 of 1969, in the notes section AJ Pack recounts that the description of two naked little boys, etc. was recorded by Midshipman Rivers in correspondence dated 12<sup>th</sup> June 1854
- <sup>84</sup> See pages 239 / 240, by Sir Geoffrey Arthur Romain Callender 1875 1946.
- <sup>85</sup> Carr Laughton, LG. Old Ship Figureheads. 1927
- <sup>86</sup> General notebook kept by Gunner William Rivers, RNM 1998/41/1, page 159
- <sup>87</sup> Sir Geoffrey Arthur Romaine Callender was an English naval historian and the first director of the National Maritime Museum from its opening in 1937 until his death in 1946, see his 'The Story of the "Victory". London, Thomas Nelson & Sons. 1914. Pages 314/315.
- <sup>88</sup> Tate citation: "Turner Bequest LXXXIX 27; Pencil on white wove paper, 114 x 184 mm; Inscribed by Turner in pencil 'White Cloth' to right of stern; Inscribed by John Ruskin in red ink '27' bottom right; Stamped in black 'LXXXIX 27' bottom right"
- <sup>89</sup> Goodwin Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served. London, Conway Maritime Press. 2002. At page 250 states "Victory c.1803. This model of the ship shows her stern as it appeared after her 'great repair' 1801 1803".
- <sup>90</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 103.
- <sup>91</sup> To reduce
- <sup>92</sup> Presumably the Trophy of Arms
- <sup>93</sup> Goodwin Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served. London, Conway Maritime Press. 2002.

<sup>94</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015.

<sup>95</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 – 1850. London, Conway Maritime Press. 19871650 - 1850'

### Inboard

- <sup>96</sup> Harris, David. The restoration of HMS Victory in the twentieth Century. International Maritime Archaeology. 1995. Page 140.
- <sup>97</sup> McGowan; Alan. HMS Victory; Her Construction, Career and Restoration. London, Chatham Publishing. 1999. Page 26.
- <sup>98</sup> Lewis, Jon E. The Mammoth book of how it happened; Trafalgar; Over 50 first-hand accounts of the greatest sea battle in history. New York, Carrol & Griffin. 2005. Page 292 / 3, taken from James, William. The Naval History of Great Britain; Volume IV – 1805 – 1807. London, Conway Maritime Press. 2002. Pages 42/3.
- <sup>99</sup> Fenwick, Kenneth. H.M.S. Victory. London, Cassell. 1959. Plate XIII.
- <sup>100</sup> James, William. The Naval History of Great Britain; Volume IV 1805 1807. London, Conway Maritime Press. 2002. Page 39.
- <sup>101</sup> Whilst a comparatively covered deck, the Upper or Main deck had sail trimmers and the like drawn from it to assist on the upper works making them more exposed to small arms fire than the Middle and Lower Decks.
- <sup>102</sup> Samuel Drummond was a British painter, especially prolific in portraits and marine genre painting. Drummond was apprenticed to the sea service when he was about thirteen. In 1791 he gave up his career at sea and entered Royal Academy schools in 1791. He became successful portrait and marine painter (Wikipedia).
- <sup>103</sup> James, William. The Naval History of Great Britain; Volume IV 1805 1807. London, Conway Maritime Press. 2002.
- <sup>104</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 132.
- <sup>105</sup> Ibid. p. 106.
- <sup>106</sup> Lavery, Brian. The Arming and Fitting of English Ships of War 1600 1815. London, Conway Maritime Press. 1987. Pages 173 – 176.
- <sup>107</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987. Page 116.
- <sup>108</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015). Page 187.
- <sup>109</sup> Marquardt, Karl Heinz. Eighteenth-Century Rigs & Rigging. London, Conway Maritime Press. 2003. Page 247.
- <sup>110</sup> Peterson, Lenarth. Rigging Period Ship Models. Barnsley, Seaforth Publishing. 2011. Page 51.
- <sup>111</sup> Smyth, WH. The Sailor's Word-Book: An alphabetical digest of nautical terms. Tunbridge Wells, Solis Press. 2019.
- <sup>112</sup> Pascoe, Daniel. Archaeological evidence for the development of Royal Naval gunnery from 1545 1811; analysing change through technology and culture. Dissertation submitted in partial fulfilment of the requirements for the degree 'Doctor of Philosophy', awarded by Bournemouth University. 2021.
- <sup>113</sup> Steel, David. The Elements and Practice of Naval Architecture. London, P Steel. 1805. Page 286.
- <sup>114</sup> Fir or softwood
- <sup>115</sup> Goodwin, Peter. Thesis 'The Influence of Industrial Technology and Material Procurement on the Design, Construction and Development of H.M.S. Victory'. University of St Andrews. 1998. Page 79.
- <sup>116</sup> Lavery, Brian. The Arming and Fitting of English Ships of War 1600 1815. London, Conway Maritime Press. 1987. Page 253.
- <sup>117</sup> "Midshipman Rivers journal and the carpenter's expenses, when Victory went into battle at Trafalgar most of the boats remained on the skid beams instead of being towed astern" – taken from Adkin, Mark. The Trafalgar Companion: A Guide to History's Most famous Sea Battle and the Life of Admiral Lord Nelson. London, Aurum Press Ltd. 2005.. Page 246.
- <sup>118</sup> Adkin, Mark. The Trafalgar Companion: A Guide to History's Most famous Sea Battle and the Life of Admiral Lord Nelson. London, Aurum Press Ltd. 2005.
- <sup>119</sup> Lewis, Jon E. The Mammoth book of how it happened; Trafalgar; Over 50 first-hand accounts of the greatest sea battle in history. New York, Carrol & Griffin. 2005. Page 314.
- <sup>120</sup>A mast made from a single piece of timber, also called a pole-mast.
- <sup>121</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Page 106.
- <sup>122</sup> McKay, John. Anatomy of the Ship: The 100-Gun Ship Victory. London, Conway Maritime Press. 1995.

<sup>123</sup> The section dealing with the ships Armament at Trafalgar deals more fully with this.

- <sup>124</sup> Photographs entitled 'HMS Victory The Aft Deck' appear in early 20<sup>th</sup> Century editions of 'Nelson's Victory' published in Gale and Ponden's Photographs entitled 'HMS Victory The Aft Deck' appear in early 20th Century editions of 'Nelson's Victory. Portsmouth, Gale and Polden Ltd.
- <sup>125</sup> Padfield, Peter. Guns at Sea. Liverpool, The Garden City Press Limited. 1973.
- <sup>126</sup> Pascoe, Daniel. Archaeological evidence for the development of Royal Naval gunnery from 1545 1811; analysing change through technology and culture. Dissertation submitted in partial fulfilment of the requirements for the degree 'Doctor of Philosophy', awarded by Bournemouth University. 2021.
- <sup>127</sup> Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966. Pages 136-137.
- <sup>128</sup> The 'Arming and Fitting of English Ships of War 1600 1815' Page 44
- <sup>129</sup> Peter Goodwin 'The Construction and Fitting of the English Man of War 1650 1850', Page 121
- <sup>130</sup> Brian Lavery 'The Arming and Fitting of English Ships of War 1600 1815'Page 145
- <sup>131</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987.
- <sup>132</sup> Bugler, Arthur. H.M.S. Victory: Building, restoration and repair. HMSO. 1966.
- <sup>133</sup> McGowan; Alan. HMS Victory; Her Construction, Career and Restoration. London, Chatham Publishing. 1999.
- <sup>134</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987.
- <sup>135</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987. Page 141.
- <sup>136</sup> NMM Main Plan references ZAZ0124 & ZAZ0125
- <sup>137</sup> The Mariners Mirror. Volume 10 Issue 2. Carr Laughton, L.G. H.M.S. Victory; Report to the Victory Technical Committee of a Search Among the Admiralty Records. 1924. Page 206.
- <sup>138</sup> Goodwin, Peter. The Construction and Fitting of the English Man of War 1650 1850. London, Conway Maritime Press. 1987. Pages 143/4.

## The Ships Boats

- <sup>139</sup> Nicolas, Sir Harris Nicholas. The Dispatches and Letters of Lord Nelson; The Nicholas Edition. Volume V January 1802 – April 1804. London, Chatham Publishing. 1998. Page 61.
- <sup>140</sup> McGowan; Alan. HMS Victory; Her Construction, Career and Restoration. London, Chatham Publishing. 1999. Page 79.
- <sup>141</sup> Burney, William. Falconer's New Universal Dictionary of the Marine 1815 Edition. London, Chatham Publishing. 2006.
- <sup>142</sup> NMRN RNM 1986/573/11. Note and accompanying sketch of Midshipman Rivers.
- <sup>143</sup> Beatty MD, William. Authentic Narrative of the Death of Lord Nelson. Third Edition 1825. Page 20.
- <sup>144</sup> James, William. The Naval History of Great Britain; Volume IV 1805 1807. London, Conway Maritime Press. 2002. Page 60.

### Armament

- <sup>145</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015.
- <sup>146</sup> Goodwin, Peter. Admiral Nelson's Warship at Trafalgar: HMS Victory Pocket Manual 1805. Croydon, Bloomsbury Publishing Ltd. 2015. Page 2015.
- <sup>147</sup> Goodwin Peter Goodwin in his Nelsons Ships: A History of the Vessels in which he Served. London, Conway Maritime Press. 2002. Page 249.
- <sup>148</sup> Fremantle, Alan Frederick. Trafalgar. Manchester, Sherratt & Hughes for Peter Davies Ltd. 1933. Page 59.
- <sup>149</sup> Copies are provided herein (*infra*)
- <sup>150</sup> Lumas, Susan. Transactions of the Naval Dockyards Society: Volume 7. HMS Victory: Sightings in the Naval Dockyards Society's Navy Board Project. Southwick, The Naval Dockyard Society. 2011.
- <sup>151</sup> Caruana, Adrian. The History of English Sea Ordnance 1523 1875: Volume II The Age of the System 1715 1815. Rotherfield, Jean Boudriot Publications. 1997. Page 126.
- <sup>152</sup> Cole, Gareth. Arming the Royal Navy, 1793 1815: The Office of Ordnance and the State. Oxon, Routledge. 2012. Page 93.
- <sup>153</sup> Weights are as quoted at page 121 of 'Simmons, Robert. The Sea-Gunners Vade Mecum. Sagwan Press. 1812'. Robert Simmons, Senior Gunner in the Royal Navy, these same weights are also listed by Caruana at page 264 and attributed to 'Isaac Landman, Notes on Artillery, MS, R.A. Library'
- <sup>154</sup> TNA ADM 160/154 Returns of ordnance on H.M. Ships. 1803 1812.
- $^{155}$  Cast Iron weighs 7,200 kg/m  $^3$  or 12,136 lbs/cu yd

- <sup>156</sup> Blake, Nicholas. Steering to Glory; A Day in the Life of a Ship of the Line. London, Chatham Publishing. 2005. Page 63. Blake in restating this practice draws from the '*Regulations and Instructions Relating to His*
- Majesties Service at Sea. Established by His Majesty in Council (13th edn: London 1790).

- <sup>158</sup> TNA WO 52-96 Ordnance Office: bill books (Series III). 1796 1797.
- <sup>159</sup> Adrian Caruana, 'The History of English Sea Ordnance: Volume II The Age of the System 1715 1815'. Page 368.
- <sup>161</sup> Goodwin, Peter. HMS Victory; 1765-1812 (First rate ship of the line) Haynes Owners' Workshop Manual. Yeovil, Haynes Publishing. 2012.
- <sup>162</sup> Caruana, Adrian. The History of English Sea Ordnance 1523 1875: Volume II The Age of the System 1715 1815. Rotherfield, Jean Boudriot Publications. 1997. Page 59.
- <sup>163</sup> Southey, Robert. The Life of Nelson 1814. London, Forgotten Books. 2018.
- <sup>164</sup> The Trafalgar Chronicle, New Series 2. Zerbe, Britt. That Matchless Victory: Trafalgar, the Royal Marines and Sea Battle in the Age of Nelson. Barnsley, Seaforth Publishing. 2017.
- <sup>165</sup> See NMM Object SLR0651, a contemporary full hull model of 'Pomone' (1805) a 38-gun frigate

# Masts, Sails & Rigging

- <sup>166</sup> Kriegstein, Arnold and Henry. Historic Ship Models of the Seventeenth and Eighteenth Centuries. Barnsley, Seaforth Publishing. 2021
- <sup>167</sup> The article in 'The Mariners Mirror. Volume 83 Issue 1. Goodwin, Peter. The Fore Topsail of HMS Victory.
  1997.' has been used to compile this discussion
- <sup>168</sup> https://www.nmrn-portsmouth.org.uk/exhibits-and-collections/trafalgar-sail
- <sup>169</sup> Lees, James. The Masting and Rigging of English Ships of War. London, Conway Maritime Press. 2001.
  Pages 44/45.
- <sup>170</sup> Marquardt, Karl Heinz. Eighteenth-Century Rigs & Rigging. London, Conway Maritime Press. 2003. Figure 181. Page 246.
- <sup>171</sup> Lees, James. The Masting and Rigging of English Ships of War. London, Conway Maritime Press. 2001. Page 178.
- <sup>172</sup> Mondfeld, Wolfram zu. Historic Ship Models. London, Argus Books. 1985. Page 232.

# Colour Scheme

- <sup>173</sup> The Trafalgar Chronicle, New Series 4. Smith, Susan K. The Summer before Trafalgar: The Journal of Benjamin Silliman. Barnsley, Seaforth Publishing. 2019. Page 27.
- <sup>174</sup> Beatty MD, William. Authentic Narrative of the Death of Lord Nelson. Third Edition 1825. Pages 7 & 8.

# Appendix 1: Gunner Rivers Notebook

- <sup>175</sup> Goodwin, Peter. Admiral Nelson's Warship at Trafalgar: HMS Victory Pocket Manual 1805. Croydon, Bloomsbury Publishing Ltd. 2015. Page 154, Appendix 3.
- <sup>176</sup> Rodger, N.A.M. The Command of the Ocean; A Naval History of Britain, 1649 1815. London, Penguin Books Ltd. 2004. Page 540.
- <sup>177</sup> Broadley, AM & Bartelot, RG. Three Dorset Captains at Trafalgar: Thoms Hardy, Charles Bullen, Henry Digby. London, John Murray. 1906. Page 140.
- <sup>178</sup> Lavery Brian. Nelson's Victory; 250 years of War and Peace. Barnsley, Seaforth Publishing. 2015. Pages 132 – 136.

<sup>&</sup>lt;sup>157</sup> The term 'Side Cleats' and 'Horns' comes from 'The Sea-Gunners Vade Mecum' p119