I think it may be most efficient if I ‘codify’ life at sea on voyages of discovery in the later eighteenth-century into a number of categories. (You will also notice that I have taken a flexible view of what constituted a voyage of discovery.)

The Voyage

The nature of the navigation and the length of the voyage and were the first determinants of the difficulty or easiness of an expedition. Whether others had sailed the general route before, and identified dangers and places of refreshment were significant. Obviously, when earlier navigators had recorded details of wind and weather, charted coasts, headlands, islands and shoals, and established the approximate co-ordinates of places along the route, later ones were able to proceed more confidently.

Relevant here, too, were previous relations between European explorers and Native peoples, for it was along coasts and at islands that the explorer might obtain fresh supplies of water, wood and food, without which he might not hope to succeed in his task. And the longer the voyage, the more the explorer needed to draw on local resources, as the supplies he had initially loaded were exhausted.
The Ship

Only a certain kind of ship were suitable for exploration, for long voyages required that it be able to carry large amounts of food and stores. It also needed to be shallow-draughted, so that it was able to operate close to shore, thus allowing the officers to establish the latitude and longitude of prominent geographical features, to sketch coastal profiles, and to take soundings. In 1772, dissatisfied with the accommodation it would offer him and his party, Banks sought to replace the Resolution with a much larger 40-gun ship or an East Indiaman. Cook commented that either ‘would have been highly improper for making discoveries in remot parts’.¹

The explorer’s ship also needed to be of sturdy construction, so as to withstand extreme conditions such as gales, passages through frozen seas, groundings on sandbars and shoals, and the ravages of the teredo navalis marine borer.

Navigation

It was crucial that the explorer be able to establish latitudes and longitudes and the set of winds and currents, so as to plot his route, first to know where he was; and then, how to find his way home – a seemingly straightforward consideration, but suddenly not so if, like Columbus, he found himself far out

¹ The Journals of Captain James Cook on his Voyages of Discovery, ed. J. C. Beaglehole (Hakluyt Society, London, 1955-67), vol. 2, p. 7. (When quoting from explorers’ journals, I have retained spelling, capitalization and punctuation.)
in an unknown ocean, his compass needle fluctuating wildly, and with no real idea of where lay the prevailing winds and currents that he needed to return.

Here, there were some factors to make these things very difficult for the explorer. Early in the Age of Discovery, the true circumference of the earth at the equator, and therefore the true extent of a full degree of longitude, were not known. Columbus sailed believing that a degree of longitude at the equator was \( \frac{1}{4} \) smaller than it in fact is; and therefore that the circumference of the earth was c. 30,000 kilometres; that the Eurasian landmass extended over 225° of longitude, so that the ocean between western Europe and China was only 135° in extent; and therefore that it was only c. 3,700 kilometres from the Canaries to Japan, whereas in reality it is 19,600 kilometres.

By the mid-18th century, theoretical advances and and more extensive observation had significantly diminished some of these problems. Mathematicians and astronomers had arrived at a much better figure for the circumference of the earth. Navigational instruments had become much more sophisticated. The Spanish and the northern European maritime nations had established which were the dominant winds and currents of the central and north Atlantic Ocean. The Portuguese and the Dutch had learnt those of the southern Atlantic Ocean and the Indian Ocean sufficient for the purposes of regular navigation. The Spanish had likewise learned to manage the northern Pacific Ocean. A series of circumnavigations had established that the set of prevailing winds and currents in the southeastern and mid-Pacific Ocean was from the extremity of South America north and northwestwards to the
equator. Dampier had produced a pioneering graph of global wind and current systems. Halley had charted magnetic variation in the Atlantic Ocean.

So by the middle of the eighteenth century, European navigators had reasonably good knowledge of some oceans. In unknown seas, though, dangers still abounded. Who knew about the cyclone seasons in the Pacific tropics? Winds and currents might prove adverse; shoals, reefs and icebergs might unexpectedly interpose themselves, and bring a voyage to a sudden halt. In 1789, for example, the British government sent out the *Guardian*, under the command of Captain Edward Riou, to succour the struggling colony in New South Wales. A swift frigate, this sailed with nine agricultural supervisors and twenty-five convict farmers and tradesmen, and with half its guns removed so as to be loaded with £70,000 worth of stores and equipment, plants and seed. Riou added animals and more plants to this cargo at the Cape Town, which he left on 11 December. Sailing in the summer season, he could anticipate that the final leg of his voyage would be relatively straightforward and take as little as eight weeks. Two weeks later, however, when 2000 kilometres out from the Cape, in 40°S latitude and 41°E longitude, the ship struck an iceberg. For eight weeks, Riou and those who did not take to the boats fought for survival, as the rudderless, waterlogged vessel veered crazily about the southern Indian Ocean. Miraculously, they made the coast of Africa again on 21 February and the crippled ship reached Table Bay. What remained of its cargo was unloaded. On 12 April a gale drove it ashore, finally shattering it.
As he sailed through unknown seas, then, not only did the explorer need to keep a sharp eye out to ensure his own safety, he also needed to build a reliable record of winds and weather, currents, coasts, islands and shoals, so that those who came after him would find the route easier. Together, these considerations meant that a voyage of exploration required many exertions beyond the normal.

Barnacles and seaweed, which attached themselves to the hull, particularly in warm waters, making a ship slower and less manoeuvrable, presented the explorer with another problem, which might be fixed only by careening and cleaning.

The Crew

It was important that an explorer undertaking distant voyages should have competent and experienced officers under him. Bligh railed incessantly against those on the Bounty, and blamed them for the voyage’s failure. Given how junior his officers were, there many be some truth in this, but the business of this voyage was so different from the usual, and Bligh so irascible, that we should not quickly accept this assertion.

It was also important that the explorer should sail with a fit crew. Men who embarked with physical disabilities might be less than useful. Those with serious health problems might die before the voyage was over. Arthur Phillip, for example, sent home from Rio de Janeiro Micah Morton, who had suffered a severe rupture at Santa Cruz, and the surgeon had advised ‘that
there did not appear any probability of his being able to return to his duty’.

He also sent back one midshipmen, who likewise had a hernia; and another who was afflicted with venereal disease.²

As the navy was then predominantly a young man’s occupation, we should expect that the majority of the crew should be in the 20-35 age bracket. (The events of Anson’s circumnavigation of 1740-44, when his regiment of ‘soldiers’ comprised mostly pensioners from Chelsea Hospital, constitute a striking example of the disadvantage of having the aged and infirm on a long voyage.)

Food

It was necessary that the exploration ship carry large amounts of food, water and alcohol (beer, wine, spirits). These needed to be durable and able to be stored compactly.

For the most part, provisions were preserved ones. In the mid-eighteenth century, the established weekly ration in the Royal Navy was: ³

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² Phillip to Stephens, 2 September 1787, *HRNSW*, vol. 1, part 2, p. 115.

³ ‘His Majesty’s Allowance to a Seaman for every day in the Week’, ADM 30/44.
At this time ‘portable’ soup was all added to the ration.

During a voyage, a commander or purser might substitute items available locally for one or other of the established items. Again, there was a fixed rate of exchange.  

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4 ‘Proportion of each Specie of Provisions’, ADM 30/44.
Then there were items carried in smaller quantities to succour the sick. These ‘purser’s necessaries’ or ‘surgeon’s necessaries’ included almonds, barley, currants, garlic, mace, nutmeg, rice, sago, shalotts, sugar, tamarinds.\(^5\)

Given that salting was the only effective means of preservation at this time, and that boiling was the only mode of preparing food for seamen, this ration had an inevitable sameness day after day when fresh provisions were not available. However, it provided a hot meal daily, with meat four times a week, together with bread, cheese and beer, and fresh vegetables and fruit from time to time. It has been estimated that the preserved ration for a seaman had a daily energy value of c. 4500 and 5000 calories, ‘far in excess of the 3350 calories required by the average 65-kilogram man employed in heavy labour’. Though it was grievously lacking in vitamins, this ration constituted a more-than-adequate intake in terms of quantity. As a number of naval historians have remarked, sailors ate significantly better than the bulk of the British laboring population and the poor.

Health

Among the risks to seamen’s health were the diseases arising from vitamin-deficiency, in particular beri-beri and scurvy.

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Of these two, scurvy was by far the more malignant. Scurvy, which is caused by lack of vitamin-C, results in loose teeth; bleeding gums and stinking breath; ulcers; the re-opening of old wounds; aching joints and swollen limbs; extreme weakness; and death within three days or so of major symptoms appearing. When Baudin reached Sydney on 17 June 1802, for example, it had been 110 days since he had been last at land. The crew was afflicted with scurvy. Four men had died; 31 were near death; and all the others of the 75 were suffering to some degree: ‘their joints were stiff, and their flexor muscles had shrunk, bowing their limbs. But their faces were the worst: leaden complexions; gums so swollen as to protrude from their mouths; ulcerated or without feeling, as in death; foetid breath’. Scurvy wreaked terrible havoc on Anson’s circumnavigation. When he left England in 1740 he had eight ships and 1955 men. When he returned four years later, he had one ship and only 145 of his original crews. Almost 1300 men had died of illness, approximately 1000 of them of scurvy.

Modern clinical studies have shown that, without replenishment, the body loses its store of vitamin-C from c. forty or fifty to ninety days; and labour in wet and cold conditions increases the rate of depletion of the body’s store, as does salt and alcohol. Modern studies also show that we need a

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minimum daily intake of 10 mgs of vitamin-C to prevent scurvy, with the recommended amount being 30-45 mgs.  

However, vitamins were not identified until the turn of the twentieth century. In the eighteenth, there were a number of misplaced theories about the cause of scurvy, and some of the specifics recommended were of little or no use. There was, though, from at least the late sixteenth century, an undercurrent of authentic knowledge the citrus fruits could cure this affliction, a fact confirmed in a clinical trial in 1747 by James Lind. Even so, there was not general acceptance of this point until the mid-1790s, when Gilbert Blane, one of Lind’s disciples, persuaded the Navy to make citrus juices a general issue; and Nelson kept the crews of his Mediterranean squadron healthy by raiding the orchards of Sicily.

There were of course other threats to a sailor’s health. A fall from the rigging might maim or kill, and being buffeted by rough seas injure. (When Bligh strove for weeks to round Cape Horn in March and April 1789, the violence of the conditions resulted in one man’s breaking a rib, another dislocating his shoulder, and eight developing rheumatism.) Since many sailors could not swim, men who fell or were swept overboard might drown. There might be outbreaks of the notorious fevers, yellow, typhoid/typhus or malaria. Some men might begin voyages with intractable disease, such as tuberculosis. Unhygienic practices, such as emptying bowels in the hold

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rather than at the heads, might give rise to infection. Sometimes men were injured or killed in violent clashes with natives, or – less commonly – with each other. Sometimes, they might become ill from eating poisonous plants or animals, such as Cook did on the second voyage, when he consumed part of a toxic fish.10

Working conditions

A sailor’s working conditions were generally arduous. The 2-watch system (4 hours on, 4 hours off) meant that men were unable to rest properly between periods of labour. In very cold weather, rigging and sails might become intractable. In December 1773, as he crossed the Antarctic Circle for the second time, Cook met with numerous ‘ice islands’, and then an large field of pack ice which he worked his way around, as he did not think the wind would allow him to exit it if he once entered it. Then, some days later, as he took a westerly direction, he encountered another ‘vast quantity of field or loose ice’. He wrote of how he

made sail to the westward under double reef’d Top-sails and

Course, with the wind notherly a strong gale attended with thick fog Sleet and Snow which froze to the Rigging as it fell and decorated the whole with icicles. Our ropes were like wires, Sails like board or plates of Metal and the Shivers froze fast in the blocks so that it required our utmost effort to get a Top-sail down and up;

the cold so intense as hardly to be endured, the whole Sea in a manner covered with ice, a hard gale and a thick fog.\textsuperscript{11}

Bligh encountered similar problems where he tried to bring the Bounty round Cape Horn:

We had no intermissions from hard Gales and very severe Weather, scarce ever leaving it in my power to do much better than lye too. The Sails & Ropes were worked with much difficulty, and the few Men who were obliged to be aloft felt the Snow Squalls so severe as to render them almost incapable of getting below, and some of them sometimes for a while lost their Speech; but I took care to Nurse them when off duty with every comfort in my power. \textsuperscript{12}

**Crime and Punishment**

As is inevitable given human nature, there were always some sailors who behaved badly. Offences ranged from minor ones such as ‘uncleanness’, drunkenness, refusal to do duty, or murmuring against the officers, to more serious ones which threatened the conduct of the voyage, such as desertion, theft, striking an officer, mutiny or murder.

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In considering this topic, though, we need to bear in mind one feature above all others. As Nicholas Rodger has pointed out,

In the eyes of a modern officer, the discipline of the mid-eighteenth-century Navy would appear lax to the point of anarchy.

Insubordination in every form and from every rank and rating in the Service was a daily part of life. When modern officers expect to command, mid-eighteenth-century officers hoped to persuade. The fact that this did not alarm them was partly because it was a feature of Service life to which they were completely accustomed, and no different from the weakness of civil authority on shore. Much more, however, it reflected an unconscious belief in the stability of society, ashore or afloat.13

Given this, there were nuances to some offences with which we are now unfamiliar. Mutiny, for example, might be a minor or a major problem. At Hawaii in December 1778, when his men refused to drink ‘beer’ brewed from sugar cane and hops, Cook wrote of his ‘mutinous turbulent crew’.14 In 1794, when a boy servant on the Europa behaved insolently to John Barry, Sergeant of Marines, Barry began yelling. He kept shouting as the lieutenant investigating the incident talked to the boy. Lieutenant Gardner repeated ordered Barry to be quiet, for Barry to answer that ‘he would not, because if he did how could he tell his story?’ Barry also refused to remove his hat in the

13 Rodger, p. 206.

presence of his superior. The lieutenant considered that ‘throughout the whole business’ Barry behaved ‘in a very mutinous manner’. The court-martial agreed, and reduced him to the ranks.\textsuperscript{15}

Armed mutiny, such as that on the \textit{Bounty}, was much more serious, but even so this was not always punished, with authorities sometimes considering it preferable to remove a detested officer than to have a crew continuing in rebellion. Jacob Nagle tells the story of how in 1791, the \textit{Blanche} was given a new captain. Henry Hotham ‘[bore] the name of such a tarter by his own ships crew, that our ship mutinised and entierly refused him’. When, surrounded by armed officers, Hotham had his commission read from the quarterdeck, the crew ‘all cried out, “No, no, no”’. They told him that ‘he was a dam’d tarter and we would not have him’; and they ‘went forward and turned the two forecastle guns aft with canester shot’. Nelson’s first lieutenant then came on board, and told them that if they did not accept Hotham, every third man would be hanged. ‘The crew flew in a body forward to the guns with match in hand, likewise crowbars, handspikes, and all kinds of weapons they could get holt of’. Nelson himself then came on board, praised the men’s efficiency and bravery, and said ‘if Captain Hotham ill treats you, give me a letter and I will support you’. Nagle observed: ‘Amedately there was three chears given and Captain Hotham shed tears’.\textsuperscript{16}

\textsuperscript{15} Minutes of the court-martial, ADM 1/5331.

Theft was another disruptive crime. As Rodger again points out, ‘because ships were paid just before sailing, men often had large sums in cash in their possession, with little privacy or security to protect it. A thief among the ship’s company destroyed its mutual bonds of trust and loyalty more swiftly than anything else’.17

There was a range of punishments available for these offences. For blasphemy, seamen might be forced to wear some mark of shame. (Officers were fined.) For drunkenness, they were kept in irons until sober. (Officers were fined two days’ pay.) It was routine for officers to punish men for minor recalcitrance with a stroke or two of a rattan cane. The most common recorded punishment for seamen was flogging with a cat-o-nine-tails. A dozen strokes was what the ‘Rules of Discipline’ permitted, though commanders might order more if they thought circumstances justified it. Since this punishment might be being summarily inflicted, it enabled good order to be quickly re-established. It avoided the need for a court-martial, which was both time-consuming and might produce a much more brutal result. For example, when one seaman who assaulted a midshipman refused to accept a flogging, a court martial sentenced him to 200 lashes.18

Commanders might also confine miscreants in irons for various periods. When a thief was caught, he was commonly forced to run the gauntlet, as on

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17 Rodger, p. 227.

18 Rodger, p. 220.
Arthur Phillip’s Ariadne in 1782. 19 This mode of punishment allowed all his injured fellows to express their disapproval.

Sentences by courts-martial were required to punish serious crimes, which included desertion, going over to the enemy, murder, some forms of mutiny, and sodomy. Punishments might be very severe – hundreds of lashes, which might leave the offender crippled; or death. In September 1780, for example, about fifteen of the crew of the Defence combined to release three men who had been put in irons a few hours before. This was a violent action, with objects being thrown at the officers and one lieutenant struck, so that the captain and officers were forced to retreat below for a time. One of the ringleaders was sentenced to death, another to 500 lashes.20

Managing People

As with any organization, a commander needed to manage his crew adroitly. There might be hotheads, cowards or incompetents among the officers; and as Rodger observes, unruliness abounded among the seamen. It was a wise commander who chose not to punish as he might. In 1783, for example, Arthur Phillip put the Europe into Cape Town on the way home from India. Billy Sutton was the sailor in charge of manoeuvring the watering boat. However, the labour of loading the filled casks was not for Billy, who would absent himself to the tavern while the rest of the party worked. By the time

19 Phillip, Entry, 7 February 1782, Ariadne log, ADM 51/60.

20 Minutes of the court-martial, ADM 1/5316.
the boat was ready to return to the ship, Billy would be drunk, but he would nonetheless insist on taking charge of it. On one such occasion, seeing his inebriation, the second lieutenant insisted on taking the helm, whereupon the indignant sailor struck him. While this was an offence punishable by death, the lieutenant showed forbearance by merely confining Sutton to the ship. Phillip was living on shore at this time, so he did not learn of the incident until the next day, when he missed Billy from the watering party and went to the ship to enquire. Learning the story, Phillip insisted on restoring him to duty, saying ‘I know he gets drunk . . . but does he ever come off without bringing what he went for?’

As well as for their recalcitrance, common sailors were notorious for their conservatism. Surprisingly often – or perhaps not so, when we consider how ritualized our own meals are – variations in food brought forth the sailors’ restiveness. As Cook observed after the Resolution’s crew had refused to drink the sugar-cane beer, ‘Every innovation whatever tho ever so much to their advantage is sure to meet with the highest disapprobation from Seamen, Portable Soup and Sour Krout were at first both condemned by them as stuff not fit for human beings to eat’. Together with the destructive symbiotic relationship between Bligh and Christian, Bligh’s manipulation of the rations was the fundamental cause of the Bounty mutiny.

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21 Edward Spain, Journal, SLNSW, MS C 266, pp. 64-5.

Irritations of life at sea

Then there were the irritations - what Arthur Phillip might have termed the désagrémentsof life at sea.

First, there was the severe lack of personal space. In many ships it was impossible to stand upright between decks, and each seaman was allocated a space of only fourteen inches for his hammock (though with two watches, this effectively became twenty-eight inches). Even officers had to endure cramped quarters. Only the captain, really, had what we should consider adequate space; and there were times when he had to relinquish it, as Bligh did in favour of the breadfruit plants.

When the elements were not attempting to bring the voyage undone, life at sea could be very boring indeed, with vistas of water and sky that might continue seemingly unchanged for days, a feeling exacerbated when a vessel was – as Coleridge memorably put it – ‘as idle as a painted ship upon a painted ocean’.

The need to draw charts and keep up their journals helped fill in the officers’ time when they were not on duty; and otherwise they might read, play such games as backgammon, or drink. For the men, there was the daily round of grog and tobacco; keeping pets, such as birds, cats, dogs or monkeys; or carving timber or bone. Sometimes, unusual phenomena, such as sunfish, whales and sharks, volcanic eruptions and sea phosphorescence might offer interesting distractions. Some commanders employed other means to alleviate boredom. Bligh, for example, took a half-blind fiddler on
the *Bounty*, and insisted that the men ‘dance’ on the deck in the evenings.

More methodical and a better manager of men, Cook had his people ‘exercise’ at the guns and small arms and clean the ship during periods of stasis.

But still, tensions might multiply between incompatible personalities confined in small space of a ship for long periods, giving rise to practical jokes, violence and sometimes duels. William Bayly, astronomer on the *Adventure*, recorded how in March 1773:

> After I was in bed, Mr Kempe the 1st Lieutenant, & Mr Burney 2nd Lieutenant, Mr Andrews the Surgeon, & Mr Hawksey Midshipman, these All came to my door and asked me to give them Brandy which I refused to do, thinking they already had enough, it being between 12 and 1 OClock at Night, I therefore beged them to go to bed, but they procured a hammer & chissel & began ripping the Hinges of my door.\(^{23}\)

On Cook’s third voyage, Lieutenant Molesworth Phillips developed an intense dislike for Lieutenant John Williamson, which deepened when his colleagues considered that Williamson had played a cowardly role at the moment of Cook’s death. The pair are reported to have duelled at Tahiti and Hawaii, and at Cape Town on the way home. George Vancouver and the botanist Archibald Menzies took a decided set against each other even before they had left England.

And it difficult human companions were not enough, those on long voyages often had to share their space with animals. The carrying of such animals as sheep, goats, pigs and fowls for food was commonplace, as was having cats on board to reduce the rat population, and dogs for hunting. But on his second and third voyages, Cook and his subordinate captains took this habit to a new level, when they carried animals to leave at New Zealand and the islands of the central Pacific Ocean. On the second voyage, for example, Cook and Furneaux left sheep, goats, pigs and fowls at Dusky Sound, Queen Charlotte Sound and Tolaga Bay in New Zealand; sheep and goats at Tahiti; twenty cats at Huahine; and a pair of dogs at Tonga. On the third voyage, Cook left England with a bull, two cows with calves and sixteen sheep ‘with a view of stocking Otahiete and the Neighbouring Islands with these usefull animals’. At the Cape of Good Hope he added to these ‘two young Bulls, two Heifers, two young stone Horses, two Mares, two Rams, several Ewes and Goats and some Rabbits and Poultry [Turkeys, Geese, Ducks, Guinea fowl, & one Peacock and Hen], all of them intended for New Zealand, Otaheite and the neighbouring islands, or any other place we might meet, where there was a prospect that the leaving of some of them might prove usefull to posterity’. 24

The records are not always illuminating about the problems carrying these animals created. These included keeping them from harm when rough seas threw them about in their stalls, or washed them overboard; and of

getting them to eat dry fodder. On Cook’s second voyage, the sheep
developed scurvy.\textsuperscript{25} Some animals were attacked by dogs or were stolen
when they were landed to feed. Then there was problem of people having to
live in close proximity with the animals. On the second voyage, the naturalists
were given a small cabin situated between two stalls. The elder Forster wrote
plaintively: ‘The room offered me by Captain Cook, & which the Masters
obstinacy deprived me of, was now given to very peaceably bleating
creatures, who on a stage raised up as high as my bed, shit & pissed on one
side, whilst 5 Goats did the same afore on the other side’.\textsuperscript{26}

Sex

The last aspect of sea life in the second half of the eighteenth century that I
shall consider is sex.

As I said, the Navy was predominantly a young man’s occupation; and
the vast majority of those who served in it were no doubt heterosexual. It is
therefore hardly surprising that sailors and sex should have become closely
associated in the public’s mind. It was by no means uncommon for Royal
Navy ships to have some women on board in peacetime; but this was not the
practice with exploring expeditions. True, the botanist Philibert Commerson
smuggled a woman ‘assistant’, Jeanne Baret, on board Bougainville’s \textit{La

\textsuperscript{25} Cook, \textit{Journals}, vol. 2, p. 112.

\textsuperscript{26} \textit{The Resolution Journal of Johann Reinhold Forster, 1772-1775}, ed. Michael E.
However, this was not a success replicated by anyone on the British voyages of Pacific exploration - though Banks did send a woman named Burnett ahead to Madeira before he changed his mind about going on Cook’s second voyage. Neither are the records silent about the gross fornication that occurred immediately a ship entered a foreign port, or, more particularly, returned to a home one; nor about that enthusiastic copulation that sailors engaged in at Tahiti and other Pacific islands.

Of these activities the records are extensive enough. However, what they are not informative about is furtive homosexual contact that may have occurred in the dark of nights and recesses of holds. There is good reason for this reserve. Sodomy was punishable by death, and this sentence was given upon conviction; so it is not surprisingly that it is referred to only very infrequently. It is therefore impossible to establish how common homosexuality was on board ships. Pointing to the distinct lack of privacy and to the fact that there were only eleven courts-martial for sodomy during the Seven Years’ War (1756-63), when there were some 70-80,000 serving sailors, Nicholas Rodger thinks it was very uncommon indeed.

However, I doubt that these figures tell the real story. The Admiralty and its commanders were very reluctant to prosecute for sodomy; and when they did, more often than not a conviction was on the lesser ground of

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28 Rodger, pp. 80-1.
indecent dealing, which might cover a number of circumstances, but not that
of sodomy as defined in the Articles of War. Arthur Phillip’s comment
cconcerning the New South Wales colony that ‘there are two crimes that would
merit death – murder and sodomy’ suggests that homosexuality was more
prevalent that Rodger allows.29

29 Phillip, Memorandum, [c. 1 October 1786], CO 201/2, fo. 91.
Part 2 The Voyage of the *Endeavour*

The Voyage

Cook did not take the *Endeavour* through entirely unknown Pacific seas.

By the later 1760s, the passages about South America were well-known, as was the southeast to northwest direction of winds and currents once through them. Samuel Wallis had fixed the location of Tahiti in 1767; and Tasman had charted some of the western coasts of New Zealand. When, having observed the Transit of Venus, Cook sailed south from Tahiti, he did traverse large areas of ocean where no European navigator had been before. However, it wasn’t until he decided to sail west from New Zealand for the unknown eastern coast of New Holland that he put himself into really unknown regions. Even then, he had the help of some earlier discoveries and chartings. The northern coasts of New Guinea were approximately known, as were the locations of some of Melanesian island groups. And he had on board a copy of Alexander Dalrymple’s *An Account of the Voyages made in the South Pacifick Ocean*, with a chart that indicated Torres’s 1606 passage through the strait between Cape York and southern New Guinea. 30

Added to this were the problems of Cook’s finding enough food for the very long voyage (August 1768-July 1771); of keeping his crew healthy; and of keeping the ship in working order.

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The Ship

Originally named the *Earl of Pembroke*, the ship the Admiralty chose for the voyage was a ‘cat-built’ bark, designed for carrying coal. It was a comparatively small ship, being 106 feet (32.3 m) long overall; 67 feet 7 inches (29.7 m) long on the lower deck; and 29 feet 3 inches (8.9 m) wide. Those of you who have been on board the replica *Endeavour* will know that it was impossible to stand upright between decks; and you will have been surprised at how little personal space there was.

It was solidly built; and as it was going to tropical seas its hull was sheathed with another layer of planks ‘filled’ with nails, to keep the teredo worm at bay. Its broad beam provided a large carrying capacity of 368 71/94 tons burden. It sailed slowly and rather clumsily, making somewhere about 5-6 knots per hour in reasonable weather, and perhaps 7-8 knots with the wind directly behind.\(^31\) Its shallow draught allowed its to operate reasonably close inshore.

When the *Endeavour* sailed from Plymouth on 26 August 1768, into it were crammed 96 men; some animals; water, food and stores for eighteen months; and the extensive scientific equipment for Joseph Banks and his party.

Navigation

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\(^31\) Cook, *Journals*, vol. 1, p. 636.
As I said, the true circumference of the earth was known reasonably accurately by the 1760s; and, with the help of quadrants and sextants, the calculation of latitude had become routine. That of longitude remained difficult, however.

On the *Endeavour* voyage, Cook and his officers used Nevil Maskelyne’s newly-developed Lunar Tables, which gave times for the passage of the moon across various heavenly bodies at a base point. If the time of a passage at a different point of the globe was determined, then the longitude of this second point could be calculated. The Lunar Tables method was considerably more accurate than earlier modes; however, its success depended on skies being clear enough to allow observations; and the mathematical calculations involved might take many hours.32

Two other things that helped those on the *Endeavour* know their longitude quite well were that both Cook and Charles Green were skilled astronomers; and that, having been sent to observe the Transit of Venus, the pair had up-to-date instruments. These instruments, the skill with which they used them and their application in taking observations, enabled them to make very accurate charts of the coasts of New Zealand and what Cook named New South Wales. (On the second and third voyages, Cook had the benefit of the newly-developed chronometer, which allowed him to determine longitude with even greater accuracy.)

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Still, there remained other hazards. Cook encountered a fierce cyclone off the northern tip on New Zealand at the end of December 1769; and he was forced to careen the ship in Queen Charlotte Sound so as to free the hull of the barnacles and seaweed that had accumulated in the warn tropical waters.33 Given that he could have no real idea of the location of the coast of New South Wales, Cook’s decision to sail west from New Zealand put him into a zone of real uncertainty, to the underwater hazards of which was added the danger of finding himself on a lee shore – i.e., in the situation where winds and currents would impel the ship against the coast rather than push it away from it.

He encountered both problems in 1770. In June, even though he had had a seaman constantly sounding, the *Endeavour* ground upon a platform reef, from which it was freed only with considerable difficulty.34 After they repaired it at Endeavour River, Cook decided that it would be safer to proceed outside the Great Barrier Reef; but when he took a narrow passage through into the Coral Sea, he found the ship in the dreadful situation of being between the last great roll of Pacific surf and the massive reef only about 100 yards to the west, with ‘not an air of wind and the depth of water . . . unfathomable so that there was not a possibility of Anchoring’ – ‘only a dismal Vally the breadth of one wave and even now no ground could be felt with 120 fathoms’.

Fortunately, a slight land breeze blew up, and with its assistance the boats’ crews were able to tow the ship away. Cook then took another small opening to regain the sheltered water inside the Reef. He wrote:

A Reef such as is here spoke of is scarcely known in Europe, it is a wall of Coral Rock rising all most perpendicular out of the unfathomable Ocean, always overflown at high-water generally 7 or 8 feet and dry in places at low-water; the large waves of the vast Ocean meeting with so sudden a resistance make a most terrible surf breaking mountains high especially as in our case when the general trade wind blowes directly upon it.35

The Crew

When it sailed, the Endeavour’s complement was 86 – though effectively 84, since two ‘widows’ men’ were in the books. There was the commander, who was also the purser; officers (lieutenants and midshipmen); warrant officers (carpenter, sailmaker, gunner, cook, surgeon, etc); seamen; marines; and servants. While the ages of not all of these are recorded, it was in general a young crew, with most of the men younger than thirty, and a number in their teens.

This is not to say that they were all equally up to the demands of the voyage. One or two of the midshipmen were pretty useless. Cook was able to get his first cook changed – ‘a lame infirm man, and incapable of doing his

Duty without the assistance of others’; however, he was unable to reject the replacement, who had only one hand.\textsuperscript{36} A number of men embarked with deep-seated illnesses.

Some of the officers and men came with a good deal of experience. Cook himself has spent extended periods in charting the coasts of Newfoundland. John Gore, 3\textsuperscript{rd} lieutenant, had joined the navy in 1755, and sailed with both Byron and Wallis. Charles Clerke, master’s mate, had entered the navy in 1755. James Magra, midshipman, had joined in 1755, and served in ships on the North American, West India and Mediterranean stations. Robert Molyneux, master, and Richard Pickersgill, master’s mate, had sailed with Wallis. John Ramsay, AB, had served in the navy for thirteen years previously. Francis Haite, AB, has sailed on Byron’s circumnavigation.

Among the ‘supernumeraries’ were Charles Green and his servant; and Joseph Banks’s party of ten, which included the botanist Daniel Solander and the artist Sydney Parkinson.

**Food**

The *Endeavour* sailed with supplies of the established naval ration, portable soup and salep or saloup (a powder made fro the roots of an orchid). It carried quantities of sauerkraut and ‘wort’ of malt, supposed to be specifics against scurvy. The ship also carried some animals – cattle, sheep, goats, pigs, dogs. Some of these were embarked in England; others were taken on board *en route* – e.g., a bull at Madeira.

\textsuperscript{36} Cook to Navy Board, 13 and 16 June 1768, *Journals*, vol. 1, pp. 613-4.
From early in the voyage, Cook paid stringent attention to the crew’s diet, and his edicts must reflect some prior knowledge of good and ill effects. He forbade the sailors to mix the salt-laden beef fat with their flour; gave them raisins rather than suet; and from time to time issued mustard, sauerkraut, portable soup and some citrus juice. At ports and places en route, Cook added local foods to the ration – e.g., onions and wine at Madeira; fresh meat, vegetables, yams and fruit at Rio de Janeiro; wild celery and ‘scurvy grass’ at Tierra del Fuego; pigs, fowls, yams and fruits at the Tahitian Islands; celery and scurvy grass at New Zealand; birds, fish and stingrays at Botany Bay and birds, fish and turtles at Endeavour River; more sea provisions at Batavia; and wood and fresh water wherever he could find them. In general, Cook was able to gain the co-operation of native peoples to obtain these extra provisions. Even the fact that Wallis had turned the Dolphin’s cannons on them did not stop the Tahitians from trading with Cook. The Strangers had too much iron for them not to seize the opportunity. Things were more difficult in New Zealand, but nonetheless Cook did manage some trade there too. The Australian Aborigines had nothing that he needed.

We should conclude that, for most of the voyage, the people on the Endeavour were at least adequately fed; and that at some moments they ate a good deal better than was usual on such voyages.

**Health**

The health record on the Endeavour voyage was quite good until Batavia.
Cook instituted a 3-watch system; and enforced a strict regimen of cleanliness, dry clothes after work, and regular airing of holds and bedding.

There were the to-be-expected accidents and illnesses, and some unexpected events. One man drowned at Madeira, another at Rio de Janeiro. Banks’s two black servants froze to death on a mountain in Tierra del Fuego. Alexander Buchan died of epilepsy and another disorder at Tahiti. Forby Sutherland died of tuberculosis at Botany Bay; and in May 1771 Zacary Hicks died ‘of a consumption which he was not free from when we saild from England so that it may truly be said the he had been dieing ever sence, tho he held out tollerable well untill we got to Batavia’. Identified as a thief, a young marine threw himself overboard. Robert Molyneux and John Reading drank themselves to death.

While scurvy does not figure prominently in the records of the Endeavour’s voyage, a number of appearances are recorded – as the ship approached Rio de Janeiro in October 1768; at Tierra del Fuego; in the south Pacific Ocean in March 1769; off the coast of New Zealand in 1769/70; at the Endeavour River in July 1770. The worst sufferers were the astronomer Charles Green and the Raiatean Tupaia who, wishing to visit England, had joined the ship at Tahiti, together with a boy servant.

Cook and the surgeon William Monkhouse relied on sauerkraut and malt to cure scurvy, but they were wrong to do so, as the one contains very little vitamin-C (10 mgs per 3100 gms) and the other a negligible amount (.1 mg per 100 gms). Cook’s belief in the efficacy of these substances rather than in that citrus juice is puzzling, since Banks took with him two kegs of lemon juice, which he used to good success when he detected symptoms of scurvy in himself.\textsuperscript{40} Cook controlled scurvy on his voyages because he insisted that his crew eat fresh foods whenever these were available; and because, without understanding the significance, his intervals at sea generally did not exceed the 50-70 days that it takes for the body’s supplies of vitamins to be depleted. However, his endorsement of sauerkraut and malt set back the cause of eliminating this pernicious disease by twenty years.

It was the stay at Batavia that caused severe mortality among the \textit{Endeavour’s crew}, numbers of whom may well have been weakened by incipient scurvy. The canals of the city were open sewers; and in the tropical humidity seamen would sleep unclothed on deck or ashore. At Batavia, therefore, people who were perforce confined to the harbour were very vulnerable to such diseases as cholera, typhoid and malaria. During the \textit{Endeavour’s} eleven weeks there, most of the company became seriously ill. When it sailed again at the end of December, seven had died and forty were

\textsuperscript{40} Banks, \textit{Journal}, vol. 1, pp. 243-4.
still on the sick list, with twenty-two of these dying before it reached the Cape of Good Hope.

**Working conditions**

Cook’s 3-watch system allowed the men to rest adequately between periods of labour; and his route did not involve the very cold conditions of some of the legs of the second and third voyages. Though there were moments of hazard at New Zealand, including Maori resistance, until the extreme dangers of Far North Queensland waters, the crew of the *Endeavour* had a reasonably comfortable voyage. According to Banks, against what might have been expected, during the struggle to free the ship from the reef there was no swearing and no panic, but rather ‘every man exerted his utmost for the preservation of the ship’. It was, as Banks observed, a tribute to the coolness with which Cook and his officers managed the situation. 41 It also reflected the social cohesion they had managed to create. Nonetheless, the threats to the voyage at this time greatly added to the stress on officers and men.

**Crime and Punishment**

There were of course moments of recalcitrance, incipient mutiny, crime. Cook flogged two seamen at Madeira for refusing to eat fresh beef. At Rio de Janeiro he flogged one man for attempted desertion and another for abusive

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behaviour; and then the flogger for not laying on these previous two hard enough. At Tahiti, he gave two seamen two dozen lashes each for stealing from the Tahitians; and he confined two marines who had deserted to be with Tahitian women for five days before releasing them after they received two dozen lashes each. At the Bay of Islands, he ordered three seamen a dozen lashes each ‘for leaving thier duty when a shore last night and diging up Potatoies out of one of the plantations’.

Managing People

By and large, Cook managed his people well during the first voyage, when he was not given to the fits of anger that marked the third one. He was a demanding commander, but he also cared for the welfare of his crew. There are some hints in the records that at times he found Tupaia a difficult companion. Here, the problem may have been that both were used to being obeyed. Nonetheless, Cook learned much about Pacific navigation from the Raiatean high priest, who was also very useful as an intermediary between the Europeans and the Maori.

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42 Cook, *Journals*, vol. 1, pp. 7, 27

43 Cook, *Journals*, vol. 1, pp.100, 114-6, 140.

Nor did Cook always punish as he might have. When, early in the voyage, the men refused to eat sauerkraut, rather than flog them, he and the officers consumed it with relish, until the men took the point.45

Irritations

The people of the *Endeavour* dealt with the boredom of the voyage in accustomed ways. Cook and Banks struck up a close friendship, in which the navigator drew heavily on the insights and sometime at first, the prose of the better-educated botanist to compose his journal. Banks and Solander spent many evenings cataloguing their precious plants and other specimens. In pursuing these activities the three often shared the space of the great cabin.

The officers kept charts and journals. Most of them drank, some to excess. They played japes on each other, the most curious of which was when, after a bout of drinking, someone slashed the clothes off the back of Cook’s clerk Richard Orton, and then his earlobes. Suspicion fell on James Marga, who ‘had once or twice before this in their drunken frolicks cut of his Cloaths and had been heard to say . . . that if it was not for the Law he would Murder him’. Cook suspended Matra from duty, but then, after no clear proof of his guilt was forthcoming, restored him to it, with the comment he was ‘one of those gentlemen, frequently found on board Kings Ships, that can very well be spared, or to speak more planer good for nothing’.46 Cook considered this

incident both as a threat to the good order of the ship and as a challenge to his authority. It continued to rankle with him, so much so that he offered rewards for the identification of the guilty person or persons when he reached Batavia.

When the working of the ship did not call for concerted effort, Cook set his men to cleaning between holds, and gunnery practice. Otherwise, in their own time the men followed the seaman’s usual leisure pursuits – for example, Cook served out pipes and tobacco to the seamen on 21 September 1768.47

Sex

There is an abundance of information about the enthusiasm with which the Endeavour’s people embraced Tahiti’s attractions. Cook did his best to limit the harm of the widespread sexual congress. Some weeks before their arrival, he had the surgeon examine the men, who found only one with obvious signs of syphilis; and this man did not have sexual relations with Tahitian women. Yet before their stay was up, 24 seamen and 9 marines had contracted the disease. Or had they? To this day, it remains unclear whether the lesions that appeared on the skins of the Tahitians and the Europeans were the symptoms of syphilis or yaws. It also remains uncertain whether, if they were syphilitic, the disease was brought to Tahiti by Wallis’s, Bougainville’s or Cook’s crew, or by some other means.

So far as I know there are no overt indications of homosexuality in the records of the Endeavour’s voyage. It is possible that there was a homosexual

sub-text to the Orton incident. Cook was very guarded in recording it, writing that ‘with respect to Mr Orton he is a man not without faults’; and that ‘some reasons might however be given why this misfortune came upon him in which he himself was in some measure to blame, but . . . this is only conjector and would tend to fix it up[on] some people in the Ship whome I would fain believe would hardly be guilty of such an action, I shall say nothing about it unless I shall hereafter discover the Offenders’.48

So too is my reading of these remarks only conjecture.

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Finally, much of my discussion has concerned routine aspects of life on the *Endeavour* during its voyage of exploration. Yet there is one quite distinctive feature to the activities of Cook, Banks, Solander and Green that very much deserves notice. This was their dedication to their respective tasks. Cook’s were to conduct the voyage efficiently; to observe the Transit of Venus; to seek out the supposed southern continent; to chart the islands and coasts he came upon; and to record details of the peoples encountered. Green’s was to combine with Cook in determining latitudes and longitudes. Banks and Solander’s were to record the plants, animals and fish they collected, and, like Cook, to observe peoples and cultures.

The successful realization of these tasks required extraordinary diligence; and this quality marked the voyage as a whole. Given that they did

not have chronometers, Cook and Green’s observations were unusually accurate. Cook and Banks drew up very detailed ethnographic accounts. As Banks described the natural history results to a correspondent, he and Solander returned with some 3,400 specimens, which included ‘about 1,000 Species of Plants that have not been at all describ’d by any Botanical author; 500 fish, as many birds, and insects Sea and Land innumerable’. The English botanist John Ellis told the aged Linnaeus that they had returned ‘laden with the greatest treasure of Natural History that ever was brought into any country at one time by two persons’. 49

From this point of view, James Cook exemplified a new kind of naval officer. Hitherto, most had seen their major interests as winning glory in battle and a goodly share of the prize money that might accompany victory. Cook was different. He counted his success according to how well he realized the scientific purposes of his voyage. He sailed for the sake of exploration in itself. Nowhere is Cook’s attitude better shown that in his remarks after he had narrowly saved the Endeavour from disaster a second time in North Queensland waters:

Such are the Vicissitudes attending this kind of service and must always attend an unknown Navigation: Was it not for the pleasure which naturly results to a Man from being the first discoverer, even was it nothing more than sands and Shoals, this service would be insuportable especialy in far distant parts, like this, short of

Provisions and almost every other necessary. The world will hardly admit of an excuse for a man leaving a Coast unexplored he has once discover’d, if dangers are his excuse he is than charged with Timorousness and want of Perseverance and at once pronounced the unfitest man in the world to be employ’d as a discoverer.\textsuperscript{50}

\textsuperscript{50} Cook, \textit{Journals}, vol. 1, p. 380.