

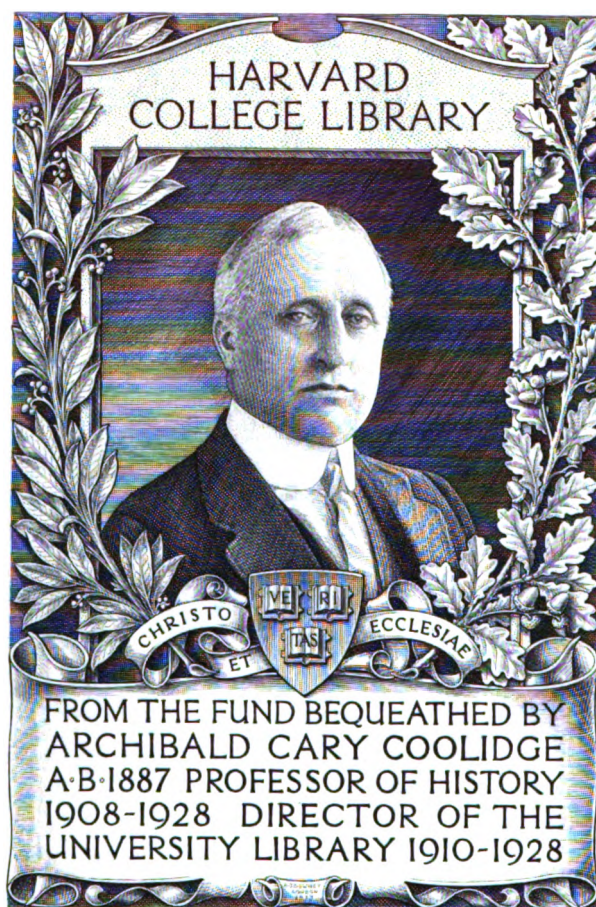
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*J. W. H. Hensworth*

AN  
ACCOUNT  
OF THE  
**PEARL FISHERIES**  
OF  
**Ceylon,**  
BY  
JAMES STEUART  
MASTER ATTENDANT AT COLOMBO,  
COMMISSIONER OF THE LOAN BOARD,  
AND FORMERLY  
INSPECTOR OF PEARL BANKS.  
**WITH AN APPENDIX.**

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**Ceylon:**  
COTTA:—CHURCH MISSION PRESS  
1843.

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*Coolidge fund*



No. 22.

*Master Attendant's Office*

*Colombo, 3rd. April 1843.*

Sir,

*I have the honor to transmit herewith an account of the Pearl Fisheries of Ceylon, with an appendix compiled from documents in my possession, some of which are of an official character.*

*I am apprehensive that the expense of getting up plates for a work of this unsaleable description, would be more than I should venture to incur, particularly as they could not be executed in Ceylon: — I would, therefore, with the permission of His Excellency the Governor, print the account without plates, from a copy in my possession, and circulate it in the colony.*

*I have the honor to be,*

*Sir,*

*Your most obedt. Servant.*

**JAMES STEUART.**

*Master Attendant.*

To

*The Hon'ble*

*The Colonial Secretary*

*&c, &c, &c.*

No. 22.

*Colonial Secretary's Office.*

*Kandy, 19th. April 1843.*

Sir,

*I have laid before the Governor the Volume containing an account of the Pearl Fisheries in Ceylon, transmitted with your letter of the 3d. instant, to the publication of which you solicit His Excellency's assent; and I am directed to acquaint you that he has no objection to its Publication.*

*I have the honor to be,*

*Sir,*

*Your most obedient Servant*

**P. ANSTRUTHER**

*C. S.*

**JAMES STEUART Esqr.**

*&c, &c, &c.*



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## ERRATA.

Page 5	Line 2	for	<i>fucts</i> , read <i>statements</i> .
" 7	" 37	"	<i>appearence</i> , read <i>appearance</i>
" 11	" 23	"	<i>enabled decide</i> , read <i>enabled to decide</i> .
" 13	" 12	"	<i>boat</i> , read <i>boats</i> .
" "	" 14	"	<i>to six pounds</i> , read <i>six pounds</i> .
" 14	" 47	"	<i>these</i> , read <i>this</i> .
" 16	" 29	"	<i>emersion</i> , read <i>immersion</i> .
" 18	" 40	"	<i>are susceptible</i> , read <i>is susceptible</i> .
" 20	" 10	"	<i>it is</i> , read <i>it was</i> .
" 21	Foot note last line, for <i>revenue benefited</i> , read <i>revenue was benefited</i> .		
" 22	Line 7	for	<i>instituted</i> , read <i>appointed</i> .
" 24	" 35	"	<i>bearing</i> , read <i>bearings</i> .
" 27	" 6	"	<i>were</i> , read <i>was</i> .
" 28	" 42	"	<i>extend</i> , read <i>to extend</i> .
" 29	" 36	"	<i>Oysters</i> , read <i>Rent</i> .
" 31	" 1	"	<i>Government</i> , read <i>Governments</i> .

## APPENDIX.

Page 51		for	<i>Mr. Jonville</i> , read <i>Mr. Joinville</i> .
" 58	34	"	<i>Jermimo</i> , read <i>Jeronimo</i> .
" 64	Line 11	"	<i>alterations</i> , read <i>alteration</i> .
" "	" 12	"	<i>and the Government</i> , read <i>and to afford the Government</i> .
" "	last line	"	<i>make</i> , read <i>mark</i> .
" 66	foot note	2nd line from bottom	for <i>have</i> , read <i>has</i> .
" 68	Line 29	for	<i>protect fishermen</i> , read <i>protect the fishermen</i> .
" 69	" 43	"	<i>is thus</i> , read <i>are thus</i> .
" 73	" 11	"	from bottom, for <i>remained</i> , read <i>remain</i> .
" "	" 9	"	Do. for of <i>Pearl fishery</i> , read of a <i>pearl fishery</i> .
" 74	" 20	"	<i>rowing Regattas</i> , read <i>rowing at Regattas</i> .
" 75	" 26	"	<i>were</i> , read <i>was</i> .
" 83	40 & 44	for	<i>boat load</i> , read <i>boat loads</i> .
" 84	" 8	for	<i>exceed</i> , read <i>exceeded</i> .
" 87	" 36	"	<i>the 1796</i> , read <i>the year 1796</i> .
" 101	" 38	"	<i>treatise</i> , read <i>treaties</i> : and at pages 102 and 103.
" 102	" 22	"	<i>even</i> , read <i>ever</i> .
" "	" 32	"	<i>Mr. Slysken</i> , read <i>Mr. Sluysken</i> .
" "	" 37	"	<i>from</i> , read <i>form</i> .
" "	" 43	"	<i>of Nabob</i> , read <i>of the Nabob</i> .
" 103	" 12	"	<i>had reference</i> , read <i>made reference</i> .
" "	" 22	"	<i>for the Temple</i> , read <i>of the Temple</i> .
" "	" 34	"	65, read 50.



## INTRODUCTION.

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In the year 1830 the writer of the following pages was induced to put together a few observations made in the course of his professional visits to the Ceylon Pearl Fisheries; and to hand a copy of them to Lieutenant Colonel Colebrooke of the Royal Artillery, one of His Majesty's Commissioners of Inquiry on Ceylon, now Sir William M. G. Colebrooke, F. R. S. M. R. A. S. &c. &c.

It appears by an extract from the transactions of the Royal Asiatic Society, that Sir William Colebrooke submitted the above mentioned paper to that Society in 1833, after his return to England from Ceylon; and that, at the recommendation of The Right Honorable Sir Alexander Johnston, it was published by them, under the designation of an "Account of the Pearl Fisheries off the North west coast of Ceylon."

The Publication of an account, so imperfect and unsatisfactory, having been indulgently received, it is presumed that more detailed information may be acceptable to those persons, who have already evinced so much interest in the subject, and, at the same time, tend to correct the opinions of writers upon political economy, who have called the attention of their readers to the Gulf of Manaar Pearl Fisheries.

Such are the chief inducements for this compilation, which is submitted with its many imperfections, without further apology than the statement of the fact, that when the writer joined his profession, with what was then considered a suitable education,—being skilled in all the rules of navigation, and well grounded in astronomy,—he could not write five lines, perhaps not five words consecutively, with correctness. Thus were many boys educated for the sea services at the beginning of the present century; and to this circumstance may be attributed the too general diffidence of Mariners in coming forward with their pens in support of their rights, and enforcing upon the consideration of their countrymen the value and importance of their profession to a Maritime Nation.

## EXTRACT

FROM AN ACCOUNT OF THE CEYLON PEARL FISHERIES PUBLISHED IN 1833.

\* \* The following letter from The Right Honorable Sir Alexander Johnston, V. P. R. A. S., with the Note accompanying it, is inserted as bearing reference to the Map of the Pearl Banks, which has been prepared to illustrate the preceding paper.\*

To

GRAVES C. HAUGHTON, Esq., M. A. F. R. S.  
SECRETARY TO THE ROYAL ASIATIC SOCIETY.

19, GREAT CUMBERLAND PLACE, MARCH 30, 1833

Sir,

I beg leave, in answer to your letter of the 16th of February, to recommend to the Council, that Captain Steuart's "Account of the Pearl Fisheries on the North West Coast of the Island of Ceylon," be printed in the *Transactions* of the Society; and that, in order to enable the public to become better acquainted with the relative situation of the Pearl-banks, a copy be annexed to it of the map of the gulf of *Manaar*,† framed by Mr. Hebert, of the Colonial Office, principally from the materials which I presented to that Office some time ago, and which I collected while I was on the Island of Ceylon, with a view of explaining a report upon the fisheries, geology, and natural history of the gulf, which I made to the late Marquis of LONDONDERRY, the then Secretary of State for the Colonies, in 1809, when I submitted to his Lordship a plan for changing the system observed by the Ceylon Government, in the management of the Pearl and Chank‡ fisheries on the North West Coast of Ceylon, for placing all the Pearl and Chank Banks in the gulf of *Manaar*, as well those belonging to the East India Company as those belonging to the Crown, under one and the same management; and for executing without delay a survey of the whole of that Gulf by able and scientific men, who could procure on the spot for His Majesty's Government such information relative to the history, the winds, the currents, the marine productions, and the coral formations§ of every part of the gulf, as might enable them to form a scientific and a deliberate opinion upon all the questions connected with the Pearl and Chank fisheries, upon the practicability, expense, and advantages of widening and deepening the passage between the peninsula of India and the island of *Ramiseram*, called the *Paumbam*, and that between the island of *Manaar* and the island of Ceylon, called the *Manaar* Pass; and upon the measures necessary to render those two passages again what they were from the remotest age to the fifteenth century, an efficient cause of the agricultural and commercial prosperity of the several countries situated between Cape *Comorin* and Point *Calymere*, on the peninsula of India, and between the ancient town of *Mantotte* and the celebrated harbour of *Trincomalee* on the island of Ceylon.

I have the honor to be, Sir, Your most obedient humble

Servant,

(Signed) ALEX. JOHNSTON.

\* More correct Charts are substituted in this work. † More correct Charts are substituted in this work.

‡ The Chank-shell, or *Voluta gravis* — Vide *Transactions* of the Royal Asiatic Society, Vol. i. p. 543 + note (B.)

§ The late Marquis of LONDONDERRY, upon the recommendation of Sir Alexander Johnston, intended in 1810, had he remained in office, to have sent a naturalist out to Ceylon for the express purpose of investigating the natural history of the Pearl-oyster, the Chank-fish, and the Coral insect in the gulf of *Manaar*. The Pearl-oyster and Chank-fish are sources of considerable revenue to the Ceylon Government, and the Coral insect is a most active agent, as is well known, in bringing about some of the greatest changes on the surface of the globe. Such an inquiry, therefore, must be at all times an object of great public interest.



## NOTE.

In this Report, Sir A. Johnston alludes, in addition to other information, to that which he had derived from the following sources:—

*First.* From the accounts given by the *Hindús* of the several historical facts, upon which the *Hindú* poet who composed the *Rámayana* (a Sanscrit poem, said by the *Hindús* to have been composed many centuries before the Christian Æra,) founded the description which he gives of the conquest of the Island of Ceylon, the destruction of its tyrant *Rávana*, and the deliverance of *Śíta* from her imprisonment on that Island by *Ráma*, whom he supposes to be the tenth incarnation of *Vishnú*: of the manner in which *Ráma* and his army crossed over the gulf of *Manaar* from the peninsula of India to the Island of Ceylon, along the ridge of rocks known at present by the name of “Adam’s Bridge;” and of the various circumstances under which *Ráma*, after his return from Ceylon, built a temple on *Rámiseram*, the *Insula Solis* of the Romans, an Island situated between the peninsula of India and the Island of Ceylon, from the meridian of which many of the *Hindú* astronomers commence their calculations, and a place as celebrated in the South as *Jaggannafha* is in the north of the peninsula, for its sanctity amongst the *Hindús*, and for the number of *Hindú* pilgrims; who resort to it annually from every part of India.

*Second.* From the accounts given by the *Mohammedans* of the historical facts to which they trace the traditions that prevail amongst them, that the Island of Ceylon was the place to which Adam retired after he had been driven out of Paradise; that the high peak on that Island, called ‘Adam’s Peak,’ was the spot on which he was buried; that the ridge of rocks extending across the gulf of *Manaar*, from the Island of *Rámiseram*, to the Island of *Manaar*, and known by the name of ‘Adam’s Bridge,’ is the bridge by which he passed over the gulf of *Manaar*, when coming from the peninsula of India to the Island of Ceylon, and that the two large tombs on the Island of *Rámiseram* are the tombs of Abel and Cain.

*Third.* From the accounts given by the Portuguese histories of the introduction of the Roman Catholic religion by St. Francis Xavier, in the sixteenth century, amongst the people called the *Parawas*, and *Marawas*, who lived along the Northern shores of the gulf of *Manaar*, of the martyrdom suffered by six hundred of the Roman Catholic converts in the island of *Manaar*, of the success of the Jesuits in the conversion and instruction of the inhabitants of the kingdom of *Jaffna*, and of the political, moral, and commercial effects, which were produced on the natives of the different countries situated on that gulf by the measures, which the Roman Catholic Missionaries adopted for the purpose of extending the Christian religion amongst all the different castes of fishermen, who were employed in the Pearl and Chank fisheries.

*Fourth.* From the accounts given by the Dutch histories of all the Dutch factories established along the Southern Peninsula of India between Cape *Comorin* and Point *Calymere*,

particularly from the history of that established at *Tuticorín*, which is near the Pearl and Chank banks off the coast of *Madura*, and is the place of residence of some of the most wealthy and powerful of the *Parawas*, who possess considerable influence over most of the divers, who are employed in the Pearl and Chank fisheries, which are situated along the south east coast of the peninsula, and the north-west coast of the Island of Ceylon.

*Fifth.* From the ancient traditions, that prevail in India relative to the great convulsion of nature, which, in a very remote age, is believed to have caused the sea to break through the Southern Peninsula of India, and from the Gulf of *Manaar*, separating what is now the most Southern part of that peninsula from the Island of Ceylon.

*Sixth.* From the description of all the different Pearl and Chank fisheries in the Gulf of *Manaar*, of which there are accounts in any *Hindú*, Greek, Roman, Venetian, Portuguese, Dutch, or English history, and from the several *Hindú* works upon the size, weight, colour, shape, and various species of pearls, which are found on the different Pearl Banks.

# ACCOUNT

## OF THE

### PEARL FISHERIES OF CEYLON.

#### CHAPTER I.

*Failure of Pearl Fisheries since 1837—Natural History of the Pearl Oyster—Value of Pearl Oysters—Fecundity of Oysters—Habits of the Oyster—When the Oysters may be taken up—Appearance and value of Pearls—Details respecting the Pearl Banks—Fishes found on the Banks—Land snakes seen in the sea.*

In consequence of the failure of the Ceylon Pearl Fisheries since the year 1837, considerable attention has been drawn to them; and many erroneous <sup>advertisements</sup> ~~facts~~ and opinions respecting the cause of the failure have been diffused by means of the public news-papers of the Colony, which no authentic account, hitherto published, is calculated to correct. Under these circumstances, it is presumed, the information contained in these pages, may in some measure do away with the false impressions so general throughout the Island respecting the *failure* of the fisheries, and at the same time be interesting to the general reader.

The amount of revenue paid into the Ceylon Treasury on account of the Pearl fisheries from March 1828 to May 1837 was £ 227,131,\* a sum sufficient to excite the attention of persons interested in the welfare of the Colony; and to create in them a desire for information on the nature and the *real extent* of these fisheries; and the mode of conducting a branch of revenue, which has been objected to by some writers upon political economy, as a Government monopoly, injurious to the community, and to the resources of the Colony.

The shell fish, from which so much revenue is obtained, bears a considerable resemblance, both externally and internally, to the common edible oysters of Europe; and,—notwithstanding that it possesses certain peculiarities, which induced Linnæus to classify it with the muscle family,—its unequal valves, the one being cupped and the other flat, and its general appearance, shape and size, will insure its being always practically known by the name it now bears, which is—the Pearl Oyster. But unlike the European Oyster, the shells of the pearl oyster have a broad hinge and a fibrous beard or byssus of a dark seagreen colour, like that of the muscle, passing out between the shells near to the hinge. With these filaments the animals adhere to each other in clusters, and to any substances they come in contact with, at a particular period of their existence.†

The value of pearl oysters at the “Billingsgate” of the fishery, depends on the quantity and the quality of the pearls they are expected to contain. Pearl oysters taken from different beds have been sold, at the same fishery, at prices varying from six pounds to fourteen shillings per thousand:—so that pearl oysters are sometimes sold at a Ceylon fishery, for less money than edible oysters are sold for in England.

\* See Appendix, Page 33.

† See Mr. Le Beck's interesting account in the Appendix, Page 96.

Failure of Pearl Fisheries since 1837.

Natural History of the Pearl Oyster.

Value of Pearl Oysters.

Pearl oysters are seen in their earliest stage of existence, like the spawn of many fishes, in myriads, floating in the sea; and in the vernal months of the year, this spawn, (or, as it is called by English oyster dredgers, "spat,") is often found adhering to sea weed drifted on the sea beach.

Fecundity of Oysters.

Some of the fishermen and other natives of the sea coast in the neighbourhood of the pearl banks, have supposed that pearl oysters were generated by the influx of abundant fresh water into the sea, from rain and the overflowing of rivers. Others believe that the young oysters fall from the clouds with the rain; while all appear to consider rain water indispensable in the production of oyster spawn. It is possible that oyster spat, like the spawn of fishes, may have been drawn up and suspended in atmospheric vapour until brought down with rain, and this may have given rise to these prevailing delusions in the simple minds of the inhabitants.

The spawn of pearl oysters in a floating state, is drifted by currents in the ocean over a great space in the gulf of Manaar, between the coasts of Ceylon and Hindoostan, until the deposition of earthly matter, or process of ossification has so far advanced on the tender shells of the "spat," or spawn, as to have increased its weight to a sinking state:—it then descends and settles in heaps of brood oysters on the bottom of the sea. About this period of the existence of these animals, some of them will adhere to floating timber, and other substances; and they have been found at more advanced ages attached to floating buoys, and to the bottoms of boats moored near the landing wharf at Colombo. It is quite evident that the adhesion of the oysters to such floating bodies must have taken place while the animals were in a buoyant state, and small in size—for young oysters not larger than one's finger nail, are sometimes brought up from the bottom of the sea sticking to the tallow on the seaman's sounding lead.

Much appears to depend on the depth of water over the ground, and the nature and quality of the soil upon which brood oysters settle, whether any portion of them eventually reach the age of maturity. If the deposit be of small extent, or be thinly scattered, the young oysters are often devoured by fishes, before the shells are hard enough to protect them. But when the deposits settle in dense heaps upon places favourable for their nourishment and growth, many of them survive to become the source of considerable revenue. Those which descend on clear sandy bottom adhere to each other: and those which fall in contact with rocks, large shells, old oysters or other substances, attach their byssus thereunto with great tenacity. When brood oysters settle upon beds of old oysters, which is not unfrequently the case, the old oysters cannot be taken up without destroying the young ones.

It is obvious from this habit of adhesion, that pearl oysters, in large quantities, could not be successfully translated from their original rocky beds to other more convenient locations, as edible oysters are removed in Europe:—but a few have been brought from Aripo to Colombo in a living state, adhering to pieces of rock, deposited in wooden boxes, the sides of which were perforated with holes, to admit the free ingress and egress of sea water as they were towed astern of the ship.

Habits of the Oyster.

After the fifth year of the pearl oyster's existence, they are considered to be of value, and to be approaching towards maturity; their byssus begins to break, and the fish to fall away from the substances to which they adhered in their earlier state, and numbers of them are found scattered over the sandy bottom of the sea. This separation may be occasioned by the byssus not being strong enough to bear the increased weight of the shells—for it is not believed, that pearl oysters have the power to detach themselves, or to remove at their own will:—but when they are detached, and lie on level ground free from obstruction in the water, they have been observed to move with their hinges in advance. This movement (which is in a very small degree,) is occasioned by their closing their widely opened shells with great quickness, as they may be supposed to do when shrinking from the attack of devouring fishes: but this forcing onwards, the result of quickly closing the shells, does not appear to be effected by the oysters for the purpose of changing their place of rest.

Small pearls, or, as they are called, seed pearl, are produced in some oysters of four years



When the Oysters  
may be taken  
up.

old;—but it is not prudent to fish them up before their sixth year is completed. After the sixth year of their existence they are expected to die, and their numbers decrease fast. Sometimes they die off more rapidly than expected, and the pearl is lost.

An enquiry into the age attained by Pearl oysters, was instituted at Aripo in 1831 by order of the Commissioner of Revenue.\*

It appears from the result of this enquiry, that seven years are considered by the natives connected with the pearl fisheries to be the maximum age, which the oysters attain: and from the experience we have had on the Pearl Banks, we believe such to be the case; and, the nearer the oysters approach to it before they are fished up, the larger and more valuable are the pearls they contain,—the value of pearls being greatly enhanced by the increase in their size. In the course of the seventh year, if the oysters live, the pearls increase in size so much as to more than double their value, and in consequence of this great increase in their value, the temptation to put off fishing them to the latest period is so great, that, in some instances of postponement, whole beds of oysters have died off, and the pearls which they contained have been wholly lost.

It is believed on respectable Indian authority, that one hundred and fifty pearls of various sizes, but mostly seed pearl, have been found in one oyster; we know that sixty seven were taken from one at Aripo in 1828. But all pearl oysters do not contain pearls; while some contain many, others taken from the same bed have none.

Appearance and  
value of pearls.

Pearls are of various shades of colour;—some few are of a delicate pink tinge and exceedingly beautiful, but not esteemed so highly as those of the prevailing favourite silvery white. They are found in all parts of the flesh of the oyster, and fast to the inner surface of the shell. The latter are called shell pearl, and as the side next to the shell is always imperfect in beauty, they are not so highly valued as perfect pearls, although they are equally useful for setting in rings and other gold ornaments.

It has been considered, that these beautiful productions of nature, are the effect of disease in the fish, exciting a superabundant secretion of the pearly matter from the inner surface of its shells, emphatically called the Mother of pearl: and experiments have been attempted in some countries, by puncturing the shells of oysters and muscles, with the view of promoting the secretion of the matter for the production of pearl:—nevertheless we see oysters with every appearance of a healthy condition abounding in pearl, and the inner surface of their shells so rich in colour as to vie with the beauty of the finest pearl.

When shell pearls are removed from the oyster shells, they leave no pearly substance on the spots they adhered to: this circumstance adds considerable support to the opinion that pearls are formed of the same matter as the mother of pearl, and it is further strengthened by the fact, that, when pearls are cut for setting in jewellery, their formation is shewn to be in many layers resembling the appearance of a sliced onion.

Details respecting  
the Pearl Banks.

Extensive deposits of pearl oysters, for a series of years at various intervals, have settled on the bottom of the sea from ten to twelve miles or more from the shore, in the vicinity of Aripo in the district of Manaar. They have also been found on rocky banks off Jaffnapatam, Calpenty, Chilaw and Negombo, and off Tuticoreen in the territory of the Honorable the East India Company. The abundant remains of pearl oyster shells on the sea shore, in many parts of the north western coast of Ceylon, are striking evidences of extensive fisheries in ancient times. Mention is made, in the records of the Dutch Government of Ceylon, of pearl fisheries being held on banks off the coast of Chilaw, on account of the Kings of Kandy; and that these fisheries sometimes caused misunderstanding between the Dutch Governor and that Court.† It was from the banks near Chilaw, that the fine pearl belonging to the Maricar of Killicarre was obtained. But under the British Government the pearl banks nearer to Aripo have been the most productive, and with a few exceptions off Chilaw and Calpenty, they have confined their fisheries to the Aripo banks.

\* See Appendix, Page 37.

† See the Report of the Dutch Commissioner in the Appendix, Page 40.

The number of successful fisheries obtained on the banks lying off the Aripo coast, more than on any other banks in the Gulf of Manaar, and the high estimation in which the pearls from these fisheries are deservedly held, would seem to indicate some peculiar quality in the bottom of the sea in these parts, which is favourable to the existence of pearl oysters, and for bringing them to the greatest perfection. We know there is something in the nature of the bottom of certain parts of the sea, which is favourable to the subsistence and growth of particular fishes, and which improves their flavour for the food of mankind:—for instance, the sole and the plaice caught in Hithe bay on the Kentish coast are esteemed better than those caught off Rye on the western side of Dungeness, and we also know that cod, turbot, oysters, and indeed most edible fishes are prized in proportion to the estimation in which the banks are held, from whence they have been taken;—and further, it is a remarkable fact, that fishes which roam in the unfathomable parts of the ocean, and have no particular banks to feed upon, are not worthy of the sauce which is necessary to make them palatable.

To the northward of the Aripo fishing ground, about three or four miles from the shore, there are extensive beds of coral, which in many places have reached the surface of the sea. This coral grows in various forms, in some instances representing beautiful plants and flowers of vast dimensions: and as the boat floats over these reefs, on the still calm transparent water so common in these parts in the month of March, the appearance of full blown roses several feet in diameter, wanting but the colour, have been traced in these wonderful productions of the deep; but the outer parts, which represent the leaves of these fancied flowers, are so extremely fragile, that it has been hitherto found impossible to remove them in a perfect state from their original beds.

The places, on which pearl fisheries have been successfully held, appear to be beds of Madrepore of irregular heights, having the spaces between the ridges nearly filled up with sand. The depth of water over these banks is from four and a half to eight fathoms. On the great bank, which lies six leagues from the land, young oysters have been found in from eight to thirteen fathoms water;—but oysters, of an age to contain pearl, have not been found on this bank, or in such deep water.

A remarkable ridge of sand, of but small breadth, extends towards the North from the Island of Karadive or Cardieu, up to the Southwest of the most productive pearl beds. The natives have a traditional account of a powerful queen—"an Amazon princess named Alliarasany," who resided at Koodremale, and who had the dead from the city buried on an island, which has since disappeared, and of which they believe this ridge to be the remains. It is however more probable that it is a ridge of rock covered with sand.

The least depth of water over this ridge is two fathoms and three quarters, and in crossing the northernmost part of this shallow coming from seaward, the water suddenly deepens to seven fathoms upon ground that has produced valuable pearl fisheries.

On the sandy parts of the pearl banks, the large Muscle called the Pinna, and by the native fishermen the Arkoe, is found in beds of some extent. A full grown pinna is from twelve to eighteen inches in length, and in appearance resembles a nearly closed up fan. It sticks fast with the point of its shells about two or three inches in the sand. Beds of these pinna are sometimes nearly covered with pearl oysters, and oysters have been profitably fished up from off them. There are also found on these banks, cockles, chanks, hammer oysters, and a large conch, called by the native fishermen the elephant chank, that feeds on the pearl oyster.\*

A variety of small crabs, worms and other minute animals are found in the pieces of coral and sponges brought up by the divers; and in some places there grows a small sponge of a cup or tulip shape, some of which is of a bright orange red colour, but its beauty fades when kept out of the water.

The sea over the pearl banks is well stocked with various fishes, some of which feed on the

Fishes found on  
the Banks.

\* See Mr. Le Beck's interesting account in the Appendix, Page 96.

oysters, and when caught by the seamen on board the guard vessel, pearls and crushed oyster shells are often found in their stomachs, particularly in the fish called by the Malabars, the Clartee; by the Singhalese the Pottooberre, and by seamen, the Oldwoman. This fish is of an oval shape, about twelve inches in length and six inches in depth from the top of the back to the under part of the belly, and is covered with a thick skin. We saw ten pearls taken from the stomach of one of these fish on board the "Wellington."

Common sharks are sometimes seen prowling about; and on one occasion our attention was called to a spotted shark of a most fearful size; it was accompanied by several common sized sharks, and they appeared like pilot fish by its side. This monster of the deep remained but a short time near the vessel, and proceeded towards the place where the divers had just ceased working for the day.

Land Snakes seen  
in the sea.

In these waters are found sea snakes of various kinds; and as the following facts testify, snakes from the land sometimes venture into the sea. The Government vessel "Wellington" employed to protect the pearl banks, anchored one fine afternoon about a quarter of a mile from the beach in Kodremale bay;—about an hour before sun-set, a cobra de capella with its hood displayed, and its head raised from the water, was observed swimming towards the vessel. On its approach to within twelve yards of the ship, the seamen saluted it with billets of wood and other missiles, which caused it to return to the land. On the following morning a boat was sent on shore and the crew followed the track of the snake on the sandy beach from the sea to the jungle. On a more recent occasion a cobra de capella, about four feet in length, was killed on the "Wellington's" deck. It was first seen by a seaman, who felt the cold chill from its skin as it touched his foot. This snake is supposed to have climbed up the cable while the vessel was at anchor. But snakes are not the only animals given to aquatic excursions, for the seamen of the "Wellington" caught a large guana, that had swum off a quarter of a mile from the shore.

## CHAPTER II.

*Boats used at Pearl fisheries—Boats' crews—Season for fishing—Native Officers or Headmen—Periodical Inspections of the Pearl Banks—Steamer "Seaforth"—Public buildings—Condatchy and Silánatorre—Engagement of Boats for the Fishery—Inspector of Pearl Banks—Prevailing winds on the Banks.*

Boats used at  
Pearl fisheries.

The boats employed at Pearl fisheries, are such as are used for other fishing and carrying purposes. At Colombo they are the batels or lighters, that convey cargo to and from shipping. When they are required for going to the pearl fisheries, they are spared from their usual work, as lightermen in England spare their craft on holiday occasions; and the boatmen and divers go in them with similar feelings to those, which excite English watermen at Regattas and fairs. The boats are about eight or nine tons burthen, and are called "dhonies." The breadth of one of these dhonies is nine or ten feet, and the depth four feet and a half. The bottom is round without any projecting keel—the breadth of the boat increasing up to the gunwales. The stem and the sternpost rake considerably, which increases the length of the boat on the top to forty five feet, while its bottom is not more than thirty. The stem or prow of many of the boats has a graceful curve or bend, and is rudely carved or painted on the top. The stern post does not rake so much as the stem, and is more straight, for the convenience of hanging the rudder. Each boat has one long rough mast and one yard—both rigged in a rude manner with coir rope made from the husk of the cocoa-nut, and one sail, made of cotton cloth of a much lighter texture than canvas. To strengthen the sail, the seams of the cloth are sewed over a coir string, and the head, foot, and leaches of the sail are loosely attached to coir rope. These sails are not adapted (any more than the boats without keels,) for sailing with adverse winds. But when favourable winds propel these primitive craft, they

run comparatively fast,—and when two or three hundred are seen sailing together—the rich whiteness of the sail cloth adds much to their picturesque appearance, and produces a scene greatly admired by visitors at pearl fisheries.

When the wind changes unfavourably, or accidents deprive the boats of the use of their sails, they are propelled by eight or ten oars, or rather paddles—for they are oval shaped pieces of plank eighteen inches long and ten inches broad fastened with coir string to sticks about sixteen feet in length. With these paddles on a smooth sea, the rowers ply cheerfully to their favourite boat songs.

Each boat is furnished with five conical or pine shaped stones, each weighing from 25 to 30 pounds, and each suspended to coir cord, sufficiently long to reach the bottom of the sea. The divers place their feet on these stones to hasten their descent to the bottom, but besides the use of these to sink them quickly, some stout men require additional weight fastened round their loins, to enable them to keep at the bottom of the sea after they leave their sinking stones, and to stoop conveniently to collect the oysters.

The boats are provided with five small nets, or, as they are commonly termed, baskets. They are made of coir yarn, and are about eighteen inches in width and the same in depth, the mouth is laced to an iron hoop, and the hoop, properly slung and suspended to a coir cord.

The crew of a boat consists of twenty three or twenty four persons, as follows,—the Tindal or Master; Sombarnotee, or representative of the owner of the boat; Today, or water baler; Ten Divers, Ten Munducks or rowers, who attend on the divers while fishing, and pull them and the oysters up from the bottom. There is also a Peon, or guard, generally sent in the boat, to prevent the boatmen opening the oysters on the way to the shore, and stealing the pearls. None of these men are good mariners, or expert boatmen. Indeed, when the rude state of their craft and their own awkward management are considered, it would appear, that no improvement could have taken place in the people, since the days when the pearls of Cleopatra's earrings were landed at Aripo.\*

Boats' Crews.

The seasons for inspecting the condition of the oysters on the banks, are in the lulls between the two monsoons—in October and November, and in March and April. When fisheries take place, they are always held in the two latter months.

Seasons for fishing.

At the examination of the banks, towards the latter end of October, when the south west monsoon has abated,—the inspecting officer is accommodated on board the guard vessel: and one or two sailing boats are sent up from the Master Attendant's department at Colombo. At Aripo, or the appointed rendezvous, they are joined by from six to ten native boats from Jaffna and Manaar similar to those already described as being used at the fisheries,—but instead of each boat having ten divers, as those at the fisheries have, each boat has but two divers, and one sinking stone.

Several native headmen are attached to the establishment. Formerly these persons received salaries, and the privilege of employing a limited number of divers at the fisheries:—but they are now remunerated by a limited rate of pay, during their attendance on pearl fishery duty, and the privilege of fishing with two or four divers, or, as they call it, one or two stones, according to their rank in the public service. Some of the headmen are intelligent and useful, as the medium of communication between the Inspecting officers and the divers; in furnishing notes of the number of oysters taken up each time by the divers, as data by which to estimate the probable extent and value of a projected fishery: and in leading the boats off from the shore to the banks.

Native Headmen or Officers.

Each headman selects a boat for his use, at the inspection of the banks, and it is hired for the time as one of those required by Government. At the fisheries they each carry a distinguishing flag at the mast head of their boats.

The principal headman is styled Adapanaar of Manaar. This office has been held in the same family for several generations, but is not hereditary. The present Adapanaar was

\* For the manner in which these people are remunerated for their labour, see Appendix, Page 11.

educated in Colombo, and gratefully mentions the kindness he received in his childhood from the Rev. George Bissett M. A. Chaplain at Colombo and private secretary to the late Sir Robert Brownrigg, Governor of Ceylon, who placed him at the English Seminary.

The other headmen are styled Manniagars and Pattangetteens—offices generally held by their ancestors. A young man, who has been educated at a Missionary school in Jaffna, has succeeded his father in one of these offices.

These headmen are not mariners, nor have they any knowledge of the management or sailing of their boats. They nevertheless have a general idea of the courses to steer by compass, when they leave the shore; and of the depth of water on the way. But they cannot at all times distinguish the relative positions of the oyster beds upon the banks; and there is no doubt but that many valuable fisheries have been lost in times past, in consequence of the superintending officer's depending on the knowledge of the Adapanaars.

Periodical Inspections of the Pearl Banks.

It is usual at the inspections of the banks to take up samples of the oysters, consisting of from three to five thousand from each bed expected to be fished in the approaching March. These samples are taken to Colombo, where a Committee of officers is appointed to superintend the washing away of the decayed fish from the shells: to see the Pearls collected from the sandy remains, and afterwards sorted, classed, and valued, by an assembly of five or six native pearl dealers. These dealers are respectable moormen, who consider it a compliment to be called to this service: and there is every reason to believe that they perform the work faithfully. Formerly they executed this service gratuitously,—but now they are moderately paid for their time.

On the report made by the Committee on the quantity, quality, and value of the pearls obtained from each sample, the Government is enabled decide on the propriety of fishing the banks. If a fishery is resolved on,—public notice is given in the form of the advertisements to be seen in the Appendix.\*

The weather in October and November is not sufficiently favourable for fishing, or indeed, with the ordinary means, for thoroughly examining the state of all the banks;—but the few fine days that admit of the divers' working are made available, as much as possible, for a partial inspection of known beds, and for taking up samples from those on which the oysters are approaching to maturity. The south west monsoon is often succeeded by the north east, with but little intermission, and as the latter blows strong from the land, both headmen and boatmen are afraid to venture far enough from the shore for any useful purpose, lest their frail craft should be disabled by the wind and driven to sea. Much time is lost, and considerable delay is occasioned by these groundless fears, for on all occasions they are attended and assisted by the Government boats and the guard vessel: and if accidents befall them, they are taken in tow.

Steamer "Seaforth."

At the inspection of the Aripo pearl banks in October and November 1840, a steam vessel, the "Seaforth," was employed for the first time on this service. After the natives had seen the power of the steamer exhibited in towing their boats against the wind, their confidence increased, and at length in full reliance on its power to tow them back, they ventured out whenever they were required, which enabled us to avail ourselves of every hour, on days which proved favourable after doubtful looking mornings, and by such means, to inspect the whole of the banks off Aripo.

Public Buildings.

Since the year 1834, some comfortable barracks for the accommodation of the Troops, who attend the fisheries as guards over the property, have been built with brick at a convenient distance from the place where the oysters are landed from the Aripo banks. There has also been erected a small custom house, and had the fisheries continued successful, it was intended to have a Court House for the District Judge, and an Office or Cutcherry for the Government Agent built in a permanent manner. Formerly all these erections were of a temporary nature, consisting of bungalows formed of sticks, Palmyra leaves, and mats—the only government building being that which from the style of its architecture, is called the Doric.

\* See Pages 42—49.

The indifferent accommodation afforded by this building (which is supposed to have been built for a sea mark,) is generally required by the Governor.

The small solitary street of native houses at the place where the oysters are landed, is commonly known by the name of Condatchy. But Condatchy properly so called, is a village about two miles from the sea, at the head of the bay which bears its name. It is on the northern shore of this bay that the oysters are landed at the village of Silawatorre, which in the tamil language means fish market or landing place of the fishery. The ground hereabouts is covered with heaps of oyster-shells, the remains of former fisheries, the shining brightness of which, added to the glare and the reflected heat of the burning sand under a noon day sun, is almost insupportable.

Condatchy and  
Silawatorre.

For a month or six weeks previous to the commencement of a fishery, numbers of boats arrive from the ports of Hindostan and parts of Ceylon, filled with people, merchandize, and supplies of all kinds;—even boats filled with coffins have been seen. In an incredibly short time, this barren plain, and the shore where the sea turtle basked in peace, are covered with huts and stalls for the sale of all kinds of goods, both Indian and European. Thousands of new inhabitants of all ages and both sexes, in every variety of costume crowd this busy scene.

It is on the sea beach near the Cutcherry, that the Government have their enclosures, with-in stick fences, for the safe keeping of the oysters, after they are landed, and until they are sold, or the pearl is extracted. Some of these places, or as they are called "cottoos," have compartments paved with bricks, and covered with chunam plaster, which forms a hard smooth surface. From these compartments, small gutters are made to carry off the water and drainage to the sea. To prevent the pearl being washed away with the water, small reservoirs deeper than the gutters are made in them, for the pearl to sink into, where it is retained until the cottoos are cleansed out. In the cottoos prepared by the Natives for their own oysters, straw or rush mats are spread on the sand for the oysters to be heaped upon. Through these mats much pearl is lost; and after the fishery is over, and the people are returning to their homes, the privilege of sifting the sand for finding the lost pearl, is rented by Government to the highest bidder.

The number of boats employed to fish each bed of oysters depends on the quantity of oysters expected to be taken up. They are advertized for in the most public manner; and many more come in search of employment than are required. Those that arrived first at Silawatorre, provided they were good boats properly fitted up for the service, and having the full complement of divers, were formerly preferred,—but latterly it has been found more expedient, to fix a certain day for the Tindals to draw lots for employment. Those Tindals who obtain employment for their boats, are subject to a charge not exceeding five pagodas, or one pound and fifteen shillings for a license to fish. At one time, the Master Attendant, who attended the fishery, and examined and licensed the fishing boats, received these fees as his perquisite; and it would appear they were originally imposed for the purpose of remunerating this officer for his attendance. Subsequent to this mode of remuneration, the Master Attendant, or, as he was termed in reference to this duty, the Inspector of Pearl banks, received ten oysters daily from each fishing boat, until the fishery of 1835, when he was paid by Government a compensation in money, and the oysters were not taken from the boat people.

Engagements of  
Boats for the  
Fishery.

The desire of the Tindals to have their boats employed in the fishery is so great, that much intrigue and stratagem are resorted to for the purpose of obtaining the dismissal of those who are already employed, and many unfounded complaints are made to the Superintendent by those persons who have been induced by the Tindals to endeavour to get their unemployed boats engaged.

Whenever the fishery is continued for a longer period than was originally intended, or it is found necessary to fish a bed of oysters more than was expected:—those boats that have not been employed, are always engaged for the purpose, in order that all, who attend the fishery may be benefited in some degree by the work.

It will be seen by the copies of the advertisements in the Appendix, that sometimes the

privilege of fishing a certain spot, with a limited number of boats for a certain number of hours on a certain number of favourable days, is rented or sold to the highest bidder; and that at other times the oysters are fished up on account of Government, and sold by the boat load before they come on shore, or by the thousand after they are landed. In all cases the proportion of oysters belonging to, or sold by Government, as its share in each boat, is three fourths of the whole taken up. The boat and crew are allowed one fourth; but this, unlike the Government share, is subject to many deductions. These deductions and the manner in which the boat people share their proportion of oysters among themselves, are explained in the Appendix.\*

Inspector of Pearl  
Banks.

The form of contract for renting a fishery, is that announced in the advertisement. It is usual that the Master Attendant, or Inspector of pearl banks, decides when the weather is favourable for fishing, and whether the boats reach the bank and remain fishing for the time agreed on between the contracting parties. Under these rents, the time of actual fishing becomes of great value, sometimes to six pounds sterling per minute. Overtures have not been uncommon, through the agents of the Renters, to induce the Inspector to share in the profits of the rents, with the view, no doubt, of inducing him to extend the daily time of fishing.

When the oysters are fished up and sold by the thousand on account of Government, the time of fishing is extended or limited according to circumstances in regard to the weather and the industry of the divers and boat people;—but six hours in the day are generally the maximum time of actual fishing on the banks, commencing at half an hour after sun rise.

Before the fishery commences, the bed of oysters intended to be fished is marked off with buoys bearing distinguishing flags of different colours; and the Government vessel is anchored at a convenient distance from the oysters.

Prevailing wind  
on the Pearl  
Banks.

Sometimes when all the necessary arrangements are completed, the commencement of the fishery is delayed in consequence of the continued prevalence of the north east wind, blowing from the land without intermission. And as the breeze from the sea is indispensable to bring the boats from the banks after they have taken their fish, the boat people will not venture out: nor does the Inspector consider such constant land wind favourable for their work, as it is during the calm interval between the land wind ceasing, and the commencement of the sea breeze, that the divers work to the greatest advantage.

When the land wind is observed to moderate, and the appearance of the weather indicates the approach of the season for breezes from the sea in the afternoon,—the Adapanaars are sent off with their native boats to the banks to wait until noon, and then to make sail for the shore. This process is repeated daily until the sea breeze brings them to the landing place in proper time. After the weather has become quite favourable, it has sometimes been deemed expedient to put off the commencement of the fishery for a day or two, to meet the prejudices of the natives respecting unlucky and auspicious days.

### CHAPTER III.

*Commencement of a Fishery—Divers—Shark Charmer—Sharks—Process of Diving—Return to Land—Offensive effluvia from Oysters—Cholera Morbus—Washing the Oysters—Collection of Pearls—their classification and sale.*

Commencement of  
the Fishery.

It is <sup>by</sup> general in the course of the first week in March that the day is fixed for the boats to go out. In the commencement they are ordered to be in readiness to start about midnight, when the signal gun is fired for them to hoist their sails.

\* See Page 42.

The Adapanaars lead the way in their respective boats, carrying a light for the fishermen to follow. They steer for the Government guard vessel, which is distinguished by a great light made at intervals on the after part of the poop. She has also a fixed light at the mast head.

When the land wind blows strong, the boats reach the guard vessel long before daylight, anchor near her and wait for day. But when the land wind is too light, or is succeeded by calm, or by unfavourable wind on the way off to the banks, the boats are much later, and some of them fail to reach the fishing ground in proper time for the commencement of the day's work. When the season is favourable, with the land and sea breezes in regular succession, the time of the departure of the boats from the shore is arranged so as to afford the boatmen as much rest as is consistent with their being on the fishing ground by sunrise.

When the boats are on the banks, a gun is fired soon after sunrise on board the guard vessel, and the government boats and the Adapanaars proceed on to the fishing ground followed by the fishing boats. At half past six o'clock, the ensign is hoisted to the main mast head of the vessel, as the signal for diving to commence, and it is kept flying during the hours of fishing.

Some divers are satisfied with the assurance of the shark charmer, that his mystical incantations have secured the mouths of the sharks and driven them from the pearl banks. Others are provided with charms written by their priests, or which have been worn by their fathers: these they wrap up in oil-cloth to secure them from wet, and wear them on their persons when diving.

Divers.

The majority of divers are of the Parawa caste, and come chiefly from the coast of Madura, Jaffna and Manaar. The others are Moormen. The Parawas are Roman Catholic Christians. Many of these and the Moormen would have it believed, that they rely on the prayers of their respective churches for their safety, but we have reason to believe, they are all desirous to secure the protection of the shark charmer, who is himself a Roman Catholic.

This important character is paid by Government, at the rate of nine pence per diem, while his services are required at fisheries and at inspections of the banks, (formerly he was retained in constant pay) and until lately he was authorized to demand one oyster daily from every diver employed at a fishery, or ten oysters from each boat, which he had no difficulty in collecting, all being desirous of his good will. But he now receives from Government a compensation in money in lieu of this privilege. The appointment has been held by succeeding members of a family residing at Manaar, and is by the natives, considered to be hereditary. While the Government think it necessary to indulge the superstition of the divers and to pay a shark charmer they are likely to employ a member of that family, in which the natives have so long had confidence.

Shark Charmer.

Some years ago, the shark charmer of Manaar was requested to exhibit his authority, and to assemble some sharks round the guard vessel on the pearl banks, but he cleverly declined, saying it would be improper to trifle with the mystical charm, which was intrusted to his family to drive sharks away, and not to call them together. A year or two afterwards a shark was seen on the banks, while an oyster bed was being marked off with buoys, preparatory to its being fished. The shark charmer was sent for and desired to account for the appearance of a shark at a time, when alarm amongst the divers might have a serious effect on the success of the fishery. Ever ready with an evasive reply, the common fence of jugglery, he unhesitatingly replied, that he had frequently been asked to summon a shark to appear, and perceiving the virtue of his charm had been doubted, he had called this shark on to the banks to please the English Gentlemen, and to convince them of his authority.

We do not remember an instance of a diver being attacked by a shark on the pearl banks, and yet we have known several instances of men being killed, and others mutilated by these voracious fish on other parts of this coast. There is now a diver living in Colombo on the bounty of some individuals, who nine years ago lost both his arms in the outer roadstead of Colombo, while diving for some articles lost over board from the ship "Africa."

Sharks.

At the time this accident happened, public sympathy was awakened in favour of the sufferer's misfortune, and it was taken advantage of by the benevolent medical officer, Dr.



Kinnis, who amputated the unfortunate man's two mutilated limbs. The amount of the donations was invested by this gentleman in the Savings' Bank; the interest of which, is three shillings per month. This with the monthly subscriptions of individuals amounted to one pound four shillings; but time has removed several of the subscribers, and hardened the hearts of others, so that his monthly pittance is now reduced to fifteen shillings, which is barely sufficient to procure subsistence for himself and his family.

In the instance of this unfortunate diver, he had but one companion in the water,—whereas on the pearl banks, there are hundreds of divers splashing about and plunging to the bottom, amid the tumult and noise of thousands of bawling boatmen; and it is to the incessant noise and tumult, in all probability, that the divers owe their safety from sharks.

In early life on the coast of New Zealand, we remember to have seen a man's leg bitten by a shark. A dead whale had been brought along side the ship, for the purpose of obtaining its blubber for making oil. Innumerable birds and hungry fishes, as is usual on such occasions, had assembled round the ship to devour the loose pieces of flesh cut from the whale. In order to hoist the blubber into the ship, it is necessary that a man should go on to the whale's back to fasten the tackle. For his safety and convenience while at work, a rope that is fastened to a canvas belt round his waist, is attended to by a careful man on deck. While the unfortunate man was fastening the tackle hook to the blubber, he had one foot pressed into the torn and cut flesh of the whale, and the other extended into the sea. The second mate from a suspended stage over the side of the ship, observed a shark in the act of seizing the man's leg,—with great presence of mind and admirable precision, he darted his spade (the instrument he was using to cut the blubber) at the neck of the monster and nearly severed its head from its body, at the instant it had seized the man's leg. On hauling the man into the ship, it was found that the teeth of one jaw had made a serious wound, but so opportune had been the act of the mate, that the teeth of the other jaw had only made a number of small holes in the skin. In the course of six weeks the wounds healed and the man resumed his duty.\*

Many old divers profess to be able to charm away sharks. We have one at Colombo, who exhibits a charm—an ola, or piece of dried palmyra leaf, scrawled over with unintelligible and mystical characters—and with his son, has influence to prevent other divers, (without his permission and participation in the reward,) from fastening ropes to anchors parted from by shipping. Several attempts have been made to induce other divers to remain in Colombo; and some have been engaged by the month and brought from the pearl fishery, to make ropes fast to anchors when required, but the appearance of the armless man before mentioned, and the threats of the old diver and his son, very soon make them leave the place. For sometime past the old diver and his son have enjoyed their monopoly, working only when they please and charging thirty shillings for each anchor, while other divers work the whole day on the pearl banks for nine pence.

Process of Diving.

When the signal is hoisted at the Pearl-fishery for diving to commence, many of the divers are seen for a brief interval in serious meditation or acts of devotion. They then divest themselves of their cloth, except a very small piece for the purposes of decency, and five from each boat plunge into the sea and swim to their respective sinking stones,—which stones the boatmen, or as they are called munducks, or attendants on the divers when at work, have hung over the sides of their boats in readiness, three stones on one side, and two on the other.

The diving stone is suspended by a *double* cord, and the net for bringing up the oysters is slung to a *single* rope, in order to prevent the divers mistaking one for the other when they are under the water. The bight of the double cord, to which the stone is suspended, is passed over a stick projected for the purpose, from the side of the boat, within the convenient reach of the diver while at the surface of the water; he is thereby enabled to adjust the height of the stone by lowering or raising it for the convenience of his foot to rest upon. Previous

\* Sharks are not so often seen in European latitudes;—but we remember, when in command of H. M. Armed Schooner "Maria" in the Bay of Biscay, to have caught a shark over the stern of the Vessel, by hooking it under the jaw with a boat hook, while a seaman was tempting it with a piece of meat tied to a cord.

to going down he places his right foot upon the stone, and receives the double cord between his toes. He puts his left foot on the rim of the hoop of the net, and presses the hoop and the net between his legs, so as to lessen their resistance to his descent. When thus prepared, and assured by his attendants, that the cords are clear for being thrown into the sea as he descends; he draws a full breath, presses his nostrils between the thumb and fingers of his left hand, raises his body as much as he is able, to give force to his descent, slips his hold of the *bight* of the double cord, which flies from over the projecting stick, and descends as rapidly as the stone will sink him to the bottom.

On reaching the ground, he instantly abandons the stone (which is hauled up by his attendants and suspended to the projecting stick, in readiness to take him down again) he throws himself on his face and appears to cling to the ground while he is filling his net and creeping over considerable space, sometimes to the extent of eight or ten fathoms. When he wishes to ascend, he jerks the cord of the net, which is instantly felt by his watchful attendants in whose hands it is always retained, and they haul up the net as fast as they are able—the diver remaining to prevent the net trailing on the ground and the oysters dropping out. So soon as the net is clear of the bottom, he pulls himself up the cord hand over hand, until by the united efforts of his attendants pulling up the net, and himself climbing up its cord his body has acquired sufficient impetus upwards to reach the surface, he then forsakes the cord, places his arms close to his body and his hands to his thighs, and rapidly ascends, bounding head and shoulders above the water. On reaching the surface he swims to his sinking stone, and by the time the net is emptied of its contents and his attendants are ready, he is prepared to dive again. This work is repeated by five divers, until they are relieved by the other five, who have remained in the boat to form the necessary alternate rests during the day's work. From this it will be seen, that there are two divers to each stone, and that one of the two, is constantly diving during the hours of fishing.

When divers are regularly at work, they seldom remain under water more than a minute,—the more common time is from fifty three to fifty seven seconds: but when requested or paid to remain under water as long as they are able, we have witnessed the period of their immersion to be from eighty four to eighty seven seconds. They are warned of the time to ascend by a singing noise in their ears, and by a sensation similar to hiccough. They sometimes bleed at the nose and at the ears, but not sufficiently to do them injury.

When oysters are plentiful, a good diver has been known to send up from three to four thousand for his day's work. So strong is the desire of most divers to take up great quantities of oysters, that they are too often regardless of their quality, and it is found extremely difficult to restrain them within the prescribed limits of the fishing ground, when near to its margin there are younger oysters to be obtained in larger quantities.

The weather best suited for pearl fishing is when the land wind dies away soon after sunrise, and the succeeding calm is followed by a sea breeze soon after noon. During the time of diving, the work is kept up with great spirit and eagerness by all parties engaged; and the scene is one of pleasing interest to visitors. When so many divers are at work the water is seldom sufficiently clear to admit of their being seen at the bottom,—but when they are seen creeping over the bottom collecting the fish into their nets, which is often the case at the half yearly inspections of the banks, it is a sight worthy of the journey from Colombo, and, like every thing connected with this primitive mode of fishery, more easily imagined than described.

When the time approaches for diving to cease for the day, the ensign is lowered from the mast head of the guard vessel, and the continued murmuring of a thousand voices is broken by a general call for renewed exertion before the work is stopped. At this signal the Adapanaar's boats move off from the fishing ground, and the government boats prepare to enforce obedience to the coming signal for proceeding to shore.

About fifteen minutes after the ensign has been lowered, a gun is fired from the ship for diving to cease, and for the boats to make sail for the land, when instantly the multitude burst forth in louder and more continued clamour. Some boats' crews, who have done well are

anxious to push for the shore, and commence hoisting their sails without delay; while others, who are not satisfied with their load, continue fishing until driven from the banks by the Government boats' crews, and not unfrequently subject themselves to punishment for their obduracy.

Return to land.

When all the boats have hoisted their sails and are steering for the shore on one of those lovely days so common in March, the rich whiteness of their primitively formed sails has a pleasing effect, and the whole scene is so beautiful, that it never fails to call forth the admiration of all who see it.

As they approach the shore, they are welcomed by thousands of persons, who are anxious to learn the success that has attended their adventure. The boats are taken near to their respective cottoos, and the oysters conveyed from the boats to within the enclosures, where they are divided by their crews into four heaps, as nearly equal as possible. The Government officer, or the Renter, selects three of the heaps, and the fourth remains to remunerate the fishers, who share their proportion between themselves in the manner described in the appendix.\*

Sometimes the sea breeze is not sufficiently strong to run the boats to the shore, and they are overtaken by calm, or met by land wind. In the former case, the boatmen lower their sails and take to their oars, or paddles, and merrily ply them to their cheerful choruses: and in the latter instance they keep up their sails and endeavour to reach the land as near the fish market as they can. Sometimes they are carried many miles to lee-ward before they reach the shore, and then they track their boats with a tow line along the strand. Although this tedious operation must be very fatiguing after their hard work on the banks, they persevere cheerfully until they reach their respective cottoos. When this detention occurs to many boats, the fishery is suspended for a day, in order to refresh the boatmen, and when the fishery is continued for many days without any other intermission than Sundays, it is sometimes necessary to give the people a day's rest;—but when the fishery runs into April, fresh S. W. winds and a rough sea often suspend operations on the banks for several days, and sometimes put a stop to the fishery for the season.

Offensive effluvia  
from Oysters.

Soon after the fishery has commenced, the air becomes tainted with the putrescence of the oysters in the cottoos, and is often very offensive, particularly when the weather is showery;—for when no rain falls, and fortunately the weather is generally dry, the sun's scorching rays dry up much, that would otherwise be extremely nauseous.

The offensive effluvia of this animal matter is not considered to have an unhealthy tendency on the persons engaged in the cottoos, and it is astonishing how soon the most sensitive nose becomes accustomed to the smell. Indeed some Europeans have fancied their appetites sharpened by visiting the cottoos and being surrounded by immense heaps consisting of millions of oysters in all stages of putrefaction.

Cholera Morbus.

At the fishery of 1829, the cholera morbus broke out and made fearful havoc of human life; it made its appearance in the first instance among the parawa coolies from Tuticoreen, and soon spread from them to the boatmen and divers, and put an end to the fishery some days before the time prescribed by the contract with the Renter. The Government afterwards refunded the full proportion of the money for the time they were unable to send out boats to fish, in consequence of the panic which caused the divers, in common with thousands of other people, to flee from disease and death.

In the following year another fishery was held upon the same oyster beds, and the oysters were found much more productive of pearl. Upon this increased value, a calculation was made, which shewed that the unhappy postponement of the previous fishery, had been productive of an increase to the revenue equal to about fifteen thousand pounds. But the gain in subsequent years, in consequence of the postponement of the fishery of 1829, is not to be calculated so easily:—it set at rest the erroneous opinion, that when once the fishing of an

\* See Page 42

oyster bank was commenced upon, all the oysters should be taken up:—for it was supposed that when once disturbed, they would surely die off before another year. This important discovery of a long prevailing error, encouraged a desire to confine future fisheries to beds of mature oysters, no matter how small in extent; and it has been the means of increasing the number of fisheries, and consequently the revenue in a considerable degree.

It is not until the fishing has ceased for the season, that the washing of the oysters and the collecting of the pearls become general:—but from the commencement of the fishing, the speculators with small means, working people, and others whose necessities or curiosity do not admit of delay, wash their oysters and seek out the pearl at a great loss, while the fish is comparatively fresh.

The general mode of washing the oysters is in canoes or as they are commonly called, ballams—boats made of one tree or piece of timber hollowed out—from twenty to thirty feet in length, from two to three feet wide, and eighteen or twenty inches deep. After the oysters are put into the ballam, sea water is poured in, until it is about three fourths filled; and then as many men as can conveniently arrange themselves on each side, squat down and carefully wash and examine every oyster shell. Those shells which have pearl adhering to them are set apart for the pearl to be cut off, and those which have no pearl are thrown in heaps outside the cottoos. After all the shells, which were put into the ballam, are washed, the pearls not collected have sunk with muddy sand and filthy remains of the oysters to the bottom of the ballam. The muddy water is then carefully baled out or poured off, and more sea water thrown in. The process is very carefully repeated until all the mud and filth are washed away, and nothing remains but pearls and sand. The whole that remains is then spread on cloth and exposed to the sun to dry. When it is thoroughly dry, it is carefully sifted by women and the pearls collected; and when all the pearls that the women can see are extracted, it is again examined by little boys, whose young eyes manage to collect the smallest seed pearls, which could not be seen by the women. While the work of collecting the pearls is proceeding, a vigilant watch is kept over all the people employed; and from the commencement, every pearl that is found, is put into a box by the Superintendents. Some coolies have been known to swallow large pearls, and the women to conceal them in their cloths and hair.

After the pearls are collected they are classed, weighed and valued. The method of classing them is by passing them through a succession of brass cullenders called baskets, of the size and shape of large saucers. There are ten and sometimes twelve of these cullenders, the first has twenty holes in it, and the pearls that do not pass through these holes after being well shaken, are called of the twentieth basket. The succeeding baskets have 30, 50, 80, 100, 200, 400, 600, 800, 1000 holes, each basket giving the name, corresponding with its number of holes, to the pearls, that do not pass through the holes in it—so that there are pearls of 20th, 30th, 50th, and so on to the thousandth basket. The pearls which do pass through the eleventh and twelfth baskets, when they are used, are called “masie.” The pearls being reduced into ten or twelve sizes by means of the baskets, are carefully examined in regard to their beauty of shape and of colour, and each size, except the masie, are susceptible of seven distinct descriptions; after being classed, they are weighed and valued according to their respective qualities. The method pursued by the Colombo pearl merchants employed to value the samples previous to a fishery, may be seen in the appendix\*;—it differs in some particulars from the method adopted by the pearl dealers at the fisheries.

The demand for pearls is not so great as in former days, particularly in Europe:—but the stock after a fishery is very soon sold off for the China and other eastern markets. In some of these countries, the wealthier natives use a paste or chunam made of pearl to masticate as a luxury with their beetle leaves and arreka nuts.

Washing the Oysters.

Collection of the Pearls.

Their classification and sale.

\* See Page 50.

## CHAPTER IV.

*Present of Pearl Ornaments to Lady Wilmot Horton—History of past fisheries—Report of Dutch Commissioners in 1757—Revenue since 1814—Sir Edward Barnes, Lieutenant Governor—Lieutenant Colonel Hamilton, Superintendent of the Pearl fisheries—Fishery in 1820—Sir Edward Paget, Governor—His short Government—Sir Edward Barnes, Governor—Arrival at Colombo—Guard Vessel established on the Pearl Banks—Diving Bells—Master Attendant—Adapanaars or Native Headmen—Buoys and Sea marks—Chart of the Banks—Fishery in 1828—Supervisor and Inspector.*

**Present of Pearl Ornaments to Lady Horton.** Early in the year 1837, when Lady Wilmot Horton was about to leave Ceylon, the inhabitants (being desirous of testifying their deep respect for the virtues, and their affectionate regard for the person, of that amiable and accomplished Lady :) subscribed with the greatest unanimity towards a memorial of their esteem to be presented to her on her departure. It was decided that a set of pearl ornaments would be the most appropriate emblem for the Ceylon Community to offer on the occasion—but notwithstanding there had been a series of yearly fisheries, it was found impossible to procure sufficient pearls in Ceylon, and the order was subsequently executed in London.

**History of Pearl fisheries.** The history of the pearl fisheries of these seas, appears to partake of many incidents of a peculiar nature, not easily ascertained, and which have given rise to a variety of erroneous theories respecting the causes of the failure of many expected fisheries in times past.

**Report of the Dutch Commissioners in 1757.** In the Report made by the Dutch Commissioners in 1757,\* given in the appendix, it will be seen that a great many more banks are recorded than are noticed by us; and while much importance is attached to the correct finding of these banks, there is nothing mentioned in regard to the habits of the oysters. In the observations made by the Commissioner of Revenue on the several reports of the Superintendents of the fisheries under the English government,† will be found various theories,—but after all, very little is done to dispel the uncertainty and doubt which beset this interesting subject.

**Revenue since 1814.** The large amount of revenue which the records of the colonial exchequer exhibit as the receipts from pearl fisheries: and the years which had elapsed since the fishery of 1814, without a return of revenue from the pearl banks, attracted the attention of Sir Edward Barnes soon after he became Lieutenant Governor of Ceylon in February 1820; and His Excellency appointed his Aid-de-Camp, Lieutenant Colonel Hamilton, to be Superintendent of Pearl fisheries—an office frequently held by one of the Governor's suite, and remunerated by a commission upon the amount of revenue derived from the fisheries, instead of a salary. This gentleman appears to have immediately entered zealously upon the duty—for in April and May of the same year, we find he obtained a small fishery upon a bank off Aripo. This intelligent officer was unfortunately soon afterwards obliged to leave Ceylon for the benefit of his health, and a premature death, accelerated by his exposure at the pearl fishery, deprived this Colony and the Crown of his valuable services.

After the small fishery of 1820 and before his departure for England, Colonel Hamilton forcibly pointed out the propriety of a properly qualified officer being appointed to the sole duty of superintending the pearl fisheries, as the best means of obtaining correct information on a subject of such importance to the revenue of the Colony, and much general interest to the community.

**Sir Edward Paget, Governor in 1822.** The Honorable Sir Edward Paget assumed the government of Ceylon in February 1822, and Sir Edward Barnes returned to England soon afterwards. Sir Edward Paget's attention appears to have been directed to Colonel Hamilton's report upon the pearl fisheries, and in the absence of a person possessed of the requisite qualifications, His Excellency appointed the

\* See Appendix Page 38.

† See Appendix Page 51.

Collector of the District of Manaar, to be resident Supervisor of the Pearl banks, as appears by Mr. Deputy Secretary Lusignan's letter, and a letter to H. Tufnell Esq. in the appendix,\* and continued the Master Attendant of Colombo as Inspector, but his duty was limited to that of affording the resident Supervisor such nautical assistance as he should require. This arrangement could hardly be considered an improvement on the old establishment for although the Collector of Manaar resided nearer to the pearl banks than the former Superintendent, or the Master Attendant, still his duties and his habits unfitted him for paying that necessary attention, which is recommended by Colonel Hamilton.†

First Supervisor  
of the Pearl  
Banks.

Sir Edward Paget's administration of the affairs of Ceylon lasted only nine months. It is acknowledged to have been as remarkable for its happiness, as it <sup>was</sup> for its brevity. His Excellency's able military services were required to command the armies of India. He left this Island deeply and sincerely regretted, and Sir Edward Barnes was appointed his successor.

Sir Edward Paget's  
short Govern-  
ment.

Sir Edward Barnes was acquainted with the various opinions entertained in Ceylon respecting the failure of the pearl fisheries for so many years, and he resolved to leave no stone unturned to investigate the subject. Before he left England to assume his high office in Ceylon, he succeeded in getting two diving bells ordered to be sent after him; he attended to our desire to be professionally employed at Ceylon when a vacancy occurred, but he failed in his application for a steam vessel for the service of the pearl fishery.

Sir Edward Barnes  
Governor.

Sir Edward Barnes arrived at Colombo and assumed the Government of Ceylon in January 1824. So great was His Excellency's desire to become acquainted with the state of the pearl banks, that notwithstanding diving bells were expected from England, he caused a wooden diving bell to be prepared by the Royal Staff Corps, and was present himself at its successful use on the banks in April 1825, when the writer of these pages arrived at Ceylon to assume the offices of Master Attendant at Colombo and Inspector of Pearl banks.

Arrival at Colombo  
in 1824.

To prevent plunder, a government vessel was kept on the banks during the season of the year that boats could visit them; and in the south west monsoon when the wind is too strong and the sea too high to remain on the banks, the guard vessel took shelter in Kodremalee bay, and the crew watched the approach of vessels from the neighbouring hills.

Guard vessel esta-  
blished on the  
Pearl Banks.

The cast iron diving bells arrived from London in June 1825; and the Master Attendant entered upon his duty on the pearl banks in March 1826, and commenced the use of the English diving bells under the inspection of Sir Edward Barnes, who attended the examination of the oyster beds.

Diving bells.  
Master Attendant.

It had been believed by many persons, that the native divers employed by Government at the examination of the banks, were subject to the improper influence of certain wealthy natives, who were suspected of employing boats and divers to rob the oysters beds, and that therefore the reports given by the divers could not be depended upon. It had also been said that the oyster beds were at some periods overwhelmed with drifted sand, which at other times passed away. To clear up these doubtful reports, appears to have been one, if not the only use of the diving bells;—for one native diver at a pearl fishery would collect more oysters in a day than could be obtained by all the men that could work in a diving bell.

The result of the experiments made by the diving bells proved creditable to the faithfulness of the general reports made by the native divers; and there appeared to be no reason to believe, that the oysters were subject to be covered by drifting sand. So soon as these points were cleared up, the diving bells were no longer used; but in order to insure the banks from all attempts at plunder, a government vessel kept constant watch over them.

From some of these banks the land is hardly to be seen from the small ship's deck, and it is not visible from the boats—nevertheless the Adapanaars professed with apparent confidence to distinguish one oyster bed from another, and the resident Supervisor seemed to entertain no doubt of their ability;—but on referring to the Chart the situations assigned by them were not

Adapanaars or Na-  
tive Headmen.

\* See Appendix Pages 55—56.

† It is believed, that Sir Edward Paget contemplated conferring the appointment, in the manner recommended by Colonel Hamilton, on the writer of these pages.







so satisfactory, and proved that the local knowledge of the Adapanaars did not make up for their want of experience as mariners and navigators. Their chief dependence appeared to be on the course they have steered from the "Doric," the depth of water and the nature of the bottom,—all very useful assistants to practical men,—but not in themselves sufficient guides to many of the places visited, nor to define the relative position of the oyster beds, many of which were of small extent.\* The full consideration of these circumstances confirmed the belief, that dependence could not be placed implicitly on the judgment of these men, and that some measures were necessary to prevent one bed of oysters being mistaken for another, which there appeared to be good reason to conclude had been the case, and that fisheries had been lost in consequence.†

Buoys and sea marks.

The land seen from the Aripo pearl banks being at a considerable distance, and having no striking objects upon it to answer as sea marks, it was considered that such buoys as are used for marking sand banks and dangers, would be useful in defining the relative position of the several beds of oysters:—but such buoys would also point out the oysters to plunderers, and further, they would not render distinguishing marks upon the land unnecessary—for, if the buoys should break adrift, which they were likely to do in the S.W. monsoon, it would be difficult to replace them with requisite correctness, without the aid of distinct marks upon the land.

The early setting in of the S. W. monsoon in April 1826, abruptly closed the inspection of the banks, and the Governor resolved to consider the best sites for erecting some columns to answer as sea marks, when we should assemble at Aripo in the succeeding October. Accordingly in October His Excellency took with him Captain Duvernet of the Royal Staff corps. The sites for the columns were agreed on, plans and estimates were prepared, and the requisite number of bricks ordered to be made of some clay found in the neighbourhood of Condatchy.

Chart of the Banks.

The incorrectness of the Chart on which the pearl banks were defined, was attended with much inconvenience, and the earliest opportunity was seized in March 1827, to measure the distances between the most conspicuous places on the sea coast off which the pearl banks lay, and prepare from such bearings and measurements as time and circumstances admitted of being taken, a rough chart upon which the oyster beds might be more correctly defined.

On some fine days towards evening on the pearl banks, it had been observed that the land could be seen more distinctly, and that some objects became visible, which by means of careful memoranda of their appearances might be rendered serviceable as sea marks. Several sketches of all the land in sight, at different stations on the banks, were made at the mast head of the guard vessel; and the more remarkable objects or knobs (which, when viewed through a telescope, or traced to the shore, generally proved to be large trees) carefully noted on the sketches. It soon became evident, that with such sketches, and memoranda of the changes in the appearances of the more remarkable objects as the position of the vessel was changed, it would be possible to distinguish the relative position of the oyster beds with accuracy, and render the erection of columns as sea marks unnecessary.‡

This circumstance, and an unusual wet season having flooded the newly made brick field, induced the Governor to suspend the erection of the intended columns.

\* See Appendix Page 57.

† Having been prepared by common report, to expect the Adapanaars were experienced fishermen and good Indian mariners, we were disappointed on finding they had no pretensions to such qualifications,—but we did not suppose they would be found equal to intelligent European fishermen. We know the latter enterprising men possess industry, energy and skill in a preeminent degree; and before education became so general, and navigation simplified by improvement in nautical science, it is wonderful how these indefatigable fishermen (many of whom could hardly write their names) navigated their snacks so correctly amid the dangers and the boisterous gales of the North Sea.

‡ The system of using objects on the land, either natural or artificial, as marks for avoiding dangers to navigation, has been practised in all ages by fishermen, mariners and pilots. But as the natural objects on the land seen from the Aripo pearl banks, were not sufficiently striking to general observation, the application of such natural objects for leading marks to refine particular oyster beds, proved a valuable acquisition, and by preventing mistakes, the fisheries became more confined to mature oysters, the number of fisheries increased, and the revenue benefited.

The sample of oysters taken to Colombo in 1827, was considered to be old enough to be fished in the following March. Accordingly in the spring of 1828, an extensive fishery took place on the Modregampaar—the south eastern of the Aripo banks.

Fishery in 1828.

Fourteen years had elapsed since an extensive pearl fishery had been attempted, and great and numerous were the changes which had taken place in the interval. The establishment of the fishery had been remodelled,—instead of a Superintendent remunerated by a commission on the amount of revenue obtained, a salaried resident Supervisor had been instituted, and the sale of the oysters and letting of the rents were assumed, with the general controul of the fishery, by the Commissioner of Revenue, as a branch of his general duty. All those European officers who had been employed upon former pearl fisheries, had retired from the public service,—but among the Burgher and Native servants of the Crown, there were several, who had been employed at pearl fisheries, and on them much dependence was necessarily placed in making the arrangements for the fishery.

The amount of revenue obtained from the fishery of 1828, was considered at the time satisfactory:—but the number of oysters landed was very great, and the prices obtained for them were low, in consequence of their age not being sufficiently mature.

The assembly of such a multitude of persons from distant parts of India, renders the services of a Magistrate indispensable, and as the resident Supervisor of the pearl banks was also Magistrate of the district, this latter duty prevented his attendance on the pearl banks while the fishing was going on; and his duty on the banks in consequence devolved upon the Inspector, who from that time assumed a charge over the oyster beds which was not contemplated in the written instructions of Government.† Instead of the resident Supervisor, it was the Inspector who selected the bed of oysters to be fished, and decided where the samples should be taken.

Supervisor and Inspector.

The fisheries were confined as much as possible to the small places where mature oysters lay, by such means the fisheries were continued almost yearly for a longer period than would have been the case had larger fisheries been held, as they were formerly, over beds of oysters of different ages.

## CHAPTER V.

*Commissioners of Inquiry—Sir Robert Wilmot Horton—Master Attendant as Inspector of Pearl Banks—Retirement of the Commissioner of Revenue—Desire for annual fisheries—The Admiral spares an Officer, who is made Supervisor of the Pearl Banks—He relieves the Master Attendant of the charge of the Banks—The Master Attendant required to visit and report on the state of the Banks—Last Fishery in 1837—Opinions of writers on the Pearl fishery—Errors corrected—Resignation of the Supervisor—Commander of the Steamer "Seaforth," Inspector of Pearl Banks—He is paid off, and re-engaged to command the Vessel as a Packet—Observations on the Oysters and on the Divers—Pearl fishery at Trincomalee—Writers on Political economy—Their objections answered.*

The system described in the foregoing chapter was progressing while the Commissioners of Inquiry were on the Island, but they were not made acquainted with the circumstance. It would appear they trusted to the official records on the subject; they certainly did not enquire of the Inspector, at that time, the only person who could have given them the best information, and he has regretted the circumstance, believing that few men are more competent than Commissioner Colebrooke, to form a correct estimate of the system he had then in progress.

Commissioners of Inquiry.

\* See Appendix Page 33.

† See Appendix—Mr. Secretary Lusignan's Letter Page 56.

# ACCOUNT OF THE PEARL FISHERIES.

On the arrival in Colombo in 1832 of the Report made to the Secretary of State by the Commissioners of Inquiry, on the affairs of Ceylon, it was seen that they recommended a change in the pearl fishery established, in the following words taken from their Report:\*

"Although from the experience of the present Master Attendant of Colombo as Inspector of the banks, his occasional assistance might still be useful, the present arrangement does not provide for that constant attention to the condition of the banks, which would mark the progress of the changes which gradually take place. I would recommend that an active and intelligent Naval Officer should be appointed to the sole duty of superintending the banks, and who should reside permanently at Aripo. A small establishment of boats and divers should be placed at his disposal for the protection and examination of the pearls. He would acquire that experience and information which would enable Government to derive the utmost advantage from the fishery with the least expense."

Sir Robert Wilmot Horton.

Master Attendant as Inspector of Pearl Banks.

In consequence of the above recommendation of the Commissioners, Sir Robert Wilmot Horton, the Governor, directed the Master Attendant to furnish copies of the information, which it was supposed he had, in his capacity of Inspector of pearl banks, communicated to the commissioners. But as the Master Attendant had not been applied to by the Commissioners for information on the subject, he could only submit to Government, a document which he had prepared to hand to the Commissioners, in case they should have required information from him.† In this document it is attempted to be shewn, that it is prudent there should be more than one officer acquainted with the oyster beds; not only to guard against the casualties incident to an unhealthy climate, but to insure a retention of that practical experience, which cannot be effectually secured by written records; and that the most sure and economical method of accomplishing this desirable change in the establishment, would be, to engage for a limited period a young sea officer of good qualifications to be an assistant to the Master Attendant in his duty upon the pearl banks. And when the limited period expired, if satisfactory evidence should be afforded of his fitness for all the duties connected with the pearl fishery, it would then, and not till then, be prudent to confirm him in the public service.

The above recommendations were not submitted to the Commissioners; but in reply to their enquiries, in reference to the improvement of Ceylon mariners, they were informed of the advantages which might be expected to result from the service of European officers, if they were employed on board the Government vessels, instead of Ceylonese; and that European sea officers "would make themselves acquainted with the pearl banks, whereby an increase of knowledge would be gained, instead of every new Inspector having to teach himself every particle of useful information."

It by no means follows, as a matter of course, that every officer of deserving reputation in the Naval or in the Merchant sea service, is likely to become a good fisherman, or that he has the patience and application indispensable for the successful performance of such peculiar duties as those of the Supervisor or the Inspector of the pearl banks *off the coast of Aripo*. The peculiar situation of these banks renders more than ordinary circumspection necessary in the selection of a professional officer for their superintendence.

Such were the considerations submitted to Government by the Master Attendant, and which, it is believed, induced them to postpone alteration in the pearl fishery establishment, for a period of three years after the Secretary of State had approved of the recommendation of the Commissioners of Inquiry, had abolished the offices of Master Attendant and of Inspector of pearl banks and changed the designation of the officer, who had performed these duties, to that of Harbour Master of Colombo,‡ and had provided a salary for a resident Supervisor at Aripo, and authorized an establishment of boats and divers for his use.

\* See Appendix page 64.

† See Appendix page 59.

‡ The designation of Harbour Master was *not* adopted in Ceylon in consequence of the representation of the Master Attendant of Colombo, who explained to the Governor, that it did not embrace the most important duties required of his office, relating to all matters connected with the sea, shipping, and navigation;—and that the Port of Colombo in strictness could not be said to have a harbour.

In the course of these three years the Commissioner of Revenue retired from the service, and the general superintendence of the affairs of the pearl fishery, and the sale of the oysters devolved upon the Government Agent of the Province, as a part of his general duty, in his capacity as Collector of all revenue within the limits of his authority.

Retirement of the Commissioner of Revenue.

The continued success of the pearl fisheries for so many years, had engendered an opinion, which had gone forth to the community uncontradicted, that the pearl banks off Aripo were capable of yielding annual fisheries under proper management, if carefully attended to and fished in regular succession,—and that this desirable object would be insured under an arrangement founded upon the recommendation of the Commissioners of Inquiry. In short, it was concluded, that a Naval Officer skilled in nautical surveying, and having no other duty to attend to, would mark the pearl beds with permanent buoys, and construct a correct Chart of the whole locality; shewing the relative situation of all these buoys, and of every pearl bed upon the banks: and that, with a Chart of this description, the Government Agent and the Auditor General could check the regularity of the proceedings of the Supervisor in fishing the oysters, and thereby insure “the utmost advantage from the fishery with the least expense”\*

Desire for annual fisheries.

Throughout the above theory, we trace excellent rules for the productive management of an Estate, the secure collection of the revenue of a district, and perhaps, for the productive management of the preserved oyster beds in England,—but it will be seen that such undertakings bear a very imperfect analogy to an Aripo pearl fishery, and that a system adapted for their management, no matter how perfect or captivating, would be found futile in the advantageous collection of revenue from these fisheries.

The Government of Ceylon were, nevertheless, induced to make application to the Naval Commander in Chief of the Fleet in the Indian seas, for the services of a good nautical Surveyor to transform the above interesting theory into sterling reality.

His Excellency, The Honorable Sir Thomas Bladen Capel readily spared an officer from the Fleet to superintend the Pearl Banks; and in October 1835, this officer, as resident Supervisor of the pearl banks, received the records of the pearl fisheries from the Assistant Government Agent, and the charge of the pearl banks from the Master Attendant.

The Admiral spares an officer, who is made Supervisor of the Pearl Banks.

On the occasion of giving over the charge of the oyster beds to the newly appointed resident Supervisor, we were engaged several weeks, explaining in detail their relative situations, and the order in which they should be fished. We had samples of oysters taken up from the oldest beds intended to be fished in March 1836. A sketch of the most remarkable objects on the land, as seen from the vessel's main top, and the leading marks and bearings, were submitted to the Supervisor, and he took bearings also, and soundings himself. Notwithstanding that he expressed himself perfectly satisfied with and thankful for the explanation afforded him, he considered it advisable to moor a buoy near the most valuable oyster bed, to remain as a mark until the intended fishery.

The New Supervisor relieves the Master Attendant of the charge of the Banks.

When the fishing season came round, the Supervisor discovered, that the buoy placed by him as a mark in October, had disappeared, and unfortunately the use of the sketch made in the main top, was not sufficiently familiar to his recollection to enable him to detect the Adapanaar's mistake in taking a bed of younger oysters for the more valuable one that should have been fished. This circumstance not being discovered throughout the fishery, occasioned further error, and, in the end, so much confusion, that the Supervisor reported at the close of the fishery of 1836, that there existed no prospect of another fishery upon these banks.

Fishery in 1836.

In consequence of the unfavourable report made by the Supervisor, we were directed by Government to proceed to the Aripo banks in October 1836, to examine into their state, and to report on the same, in reference to the condition in which they were delivered over to the Supervisor in October 1835. It was on this visit that the above error and its consequences to the oyster beds were discovered. We found the oysters nearly all dead upon the bed, which

The Master Attendant required to visit and report on the state of the Banks.

\* See Appendix page 55.

should have been fished, and was not fished in March 1836. We collected 800 live oysters from among numerous dead shells, to convey to Colombo in confirmation of the error committed. We had samples of oysters taken from the remaining beds, all of which appeared to have been partly fished in March by mistake. Upon these remaining beds a fishery was held in March 1837, and this pearl fishery is the last that has taken place in the Gulf of Manaar.

Last fishery in 1837.

The foregoing facts satisfactorily account for the abrupt termination of a series of successful pearl fisheries, which commenced in March 1828; and they no doubt accelerated the commencement of the unsuccessful interval, that has continued to this day. But most assuredly *they are not* the cause of there being no pearl fisheries on these coasts at this time, as many persons have erroneously concluded.

Opinions of writers on the Pearl fishery.

Another general opinion, with as little foundation on facts, has prevailed in Ceylon; and it is reported to have been credited by the Authorities in Downing Street; it therefore cannot be too plainly contradicted. It has appeared in the newspapers of the Colony, that Sir Robert Wilmot Horton caused the pearl banks to be over fished—"scraped and ruined"—for the purpose of swelling the revenue of Ceylon during his administration. Whatever gratification Sir Robert Wilmot Horton may have derived from the success of the pearl fisheries in his time, he most assuredly did not interfere in their management; and unless His Excellency had assumed the personal direction of the fishery, he could not have urged the officers entrusted with its management to any step, which in their opinion, would have been injurious to the continued success of the fisheries. We, who resided on the Island throughout Sir Robert Wilmot Horton's administration, know full well that the charge is without foundation; and we herein have shewn, that the banks were not "scraped and ruined." On the contrary we know that many beds of oysters have died off in the course of nature, some from having been left too long in the hope of obtaining the greatest quantity of pearl from them; and we have seen that in 1836, a bed was lost through error, the oysters having reached the maximum age and died upon the bank. We know that those beds which were not fished at all, could not have been "scraped and ruined," and we consider these facts are unanswerable evidence of the falsehood of the above charge against the administration of Sir Robert Wilmot Horton.

Error corrected.

The success of pearl fisheries in the Gulf of Manaar depends primarily upon natural events beyond the controul of man;—nevertheless we may, by the most vigilant attention and good management, watch the progressive workings of nature, and not fish up the oysters before they have reached maturity; nor, after they contain pearl, suffer them to die on the banks and the pearl to be lost. We may know the ages of every deposit of oysters upon the banks, and by letting the youngest remain undisturbed until the last; we may protract each successful period: and in corresponding proportion shorten the unsuccessful intervals. We may presume from past experience that unsuccessful intervals will continue to recur. We cannot promote or facilitate the production of pearl oysters. We cannot cause the spawn to settle down upon nourishing ground. These are events beyond the controul of man. The winds, the waves, and the uncertain currents of the ocean, carry the embryo over unlimited space. It is only when, in the infinite wisdom of the Creator of all things, the oyster brood descends upon banks suited to nourish and support it, that it comes within our limited power to watch its advancing age, and to fish up the respective deposits in succession as they approach the proper age: not letting them rest on the banks until they die off, and the pearl is lost; and carefully abstaining from disturbing those that are too young to contain it.

It must, we think, be obvious to all persons, who give attention to this subject, that in order to insure the greatest amount of revenue from the Ceylon pearl fisheries, the officer in charge of the banks should be thoroughly acquainted with every oyster bed, and give the most patient attention to every particular of this interesting duty during the seasons of inspections, as well as when the fisheries take place: so far the views of the late Colonel Hamilton and of the Commissioners of Inquiry were unquestionably right; but they do not appear to have been sufficiently aware of the circumspection necessary to be exercised in the selection of a professional officer not easily exchanged for another, possessing such peculiar

natural habitudes, as well as professional acquirements as are necessary to insure the desired success.

In 1839, the resident Supervisor of the pearl banks was induced to resign his office in consequence of ill health, and to proceed to England. The resignation of this officer appears to have been accelerated by the desire of the Secretary of State expressed, when confirming his appointment, that the Supervisor of the pearl banks, being a naval officer, should command the government vessel employed on the banks; and as the steamer "Seaforth" then building at Bombay for the use of the pearl fishery, would require an active Commander, it became necessary for the Supervisor to consider, and for the Government to know, whether he would be able to command the Steamer on this service.

Resignation of the Supervisor of the Pearl Banks.

The salary of the Supervisor was £500 per annum, and on his resigning his office, he was recommended to the Secretary of State for a pension of £100 per annum, and a commander engaged for the Steamer on £400 a year—[the pension of £100, and the salary of £400, being equal to the salary fixed for the resident Supervisor]—and in consideration of the salary of £400 per annum, the Commander of the steamer was required "to do the duty on the pearl banks which was formerly done by the Master Attendant of Colombo."

In October 1840, we were ordered to proceed to the pearl banks in the steamer "Seaforth," to induct the Commander of that vessel into the duties of Inspector of Pearl banks.\*

Commander of the Steamer "Seaforth" Inspector of Pearl Banks. He is paid off, and re-engaged to command the vessel as a packet.

In 1841, as there appeared to be no prospect of revenue from pearl fisheries for several years to come, the commander of the "Seaforth" was paid off, and re-engaged to command the same vessel (on reduced pay) as a steam packet to convey the overland mails between Colombo and Bombay. And as the pension of £100 a year for the late Supervisor, was not sanctioned by the Secretary of State, the whole fixed salary of £500 a year remains undrawn and the expenses of the Supervisor's establishment is saved.

The pearl oyster of the gulf of Manaar is unlike that of the Persian gulf and some other parts of the world: it in no way resembles the pearl oyster caught in Tamblegam bay, an arm of the sea extending from the great bay at Trincomalee; and it would appear to be the absence of the knowledge of these differences, that has led political economists and others into the prevailing errors on the subject of the pearl fisheries in the gulf of Manaar.

In the Persian gulf, and at Trincomalee, the divers seek for pearl oysters, as the divers of these shores seek for chanks, whenever the season or weather permits, neither fish requiring that care and attention which is indispensable for the profitable fishing of the Manaar pearl oysters.

Observations on the Pearl Oyster and on the Divers.

The fishermen on the coasts of the gulf of Manaar learn to dive for chanks (not for pearl oysters) for their daily bread, and it is their usual daily occupation. A pearl fishery to them, is a work of extraordinary interest, and they enter upon it with pleasurable feelings and with full expectation of considerable gain. Instead of toiling all day, and day after day, for five or six chanks, they look forward to a few days' cheerful labour, procuring the means of much comfort for themselves and their families.

The privilege of fishing for pearl oysters in Tamblegam lake, or bay, is generally rented by the year, and in 1841, the rent sold for £1,500; but the Renter complains of having lost money by his speculation, and says the oysters should not be disturbed for the next two years.

Pearl fishery at Trincomalee.

The cessation of the fishery would, no doubt, improve the price of the Renter's stock of pearl, and this consideration may influence his desire to have the fishery suspended: but from the appearance of some of the shells of the oysters lately taken up, it would seem, that they have not attained mature age; and if the fishery should be continued without intermission it may soon become of little value, if not be wholly destroyed.

The oysters are of a different description to those of the gulf of Manaar,—their shells are larger, both being nearly flat, and apparently affording but little room between them when closed, for the fish. They are found scattered over the lake, the general depth of which is

\* See Appendix page 67.

from six to eight feet; but in some parts of it, there are thirteen and fourteen feet water. They are most abundant near the shore, particularly opposite the mouths of the several creeks which run into the lake.

The success of the divers appears to be very uncertain. On the 21st of April 1841, one boat with a complement of seven divers picked up 700 oysters,—when another boat with only three divers brought on shore 2500. On the same day the number of divers employed ~~were~~ ninety two, in eighteen boats; and the number of oysters brought to land was 22,000.

The Tamblegam oysters of mature age contain more pearl than those of the gulf of Manaar, but the pearl is of a very inferior quality. The shells are larger, and they have sufficient substance to be applied to some of the purposes for which mother of pearl is used; but they are deficient in brilliancy and colour. In short, it is altogether a very different bivalve to the gulf of Manaar oyster, the shells of which, although so rich in brilliancy and colour, have been rejected in England, as too small and too thin for any useful purpose.

We are not in possession of sufficient information on the nature of the pearl oyster of the Persian Gulf\* to venture upon any detailed account of it; but the fact of the fisheries being continued whenever the weather admits, is sufficient to shew, that the fish is of a different kind to the oyster of the gulf of Manaar. In truth, that of the gulf of Manaar appears to be quite a peculiar fish. As before stated, it cannot be successfully translated to more safe and convenient beds, as the edible oysters of Europe are removed: but in order to insure the full produce of pearl the oyster beds require to be preserved and guarded with as much care and attention as any preserved fishery in Europe:—a fact, which must have been wholly lost sight of by writers upon political economy, when upbraiding the Government of Ceylon, (in reference to its pearl fisheries,) with retaining a monopoly injurious to the community and detrimental to the revenue of the Island. Such writers have assumed, that the gulf of Manaar pearl oysters do not require the care and attention bestowed upon edible oyster fisheries in Great Britain, whereas, it must be seen that, in order to derive the greatest benefit from them, they require a great deal more: and if government were to permit the Manaar pearl oyster, <sup>to</sup> be fished, as those are fished in the Persian Gulf, Trincomalee, and other places, and as chanks are fished, they would soon cease to be of value to any one. It is true, that a bed of mature oysters might be accidentally discovered, and turned to profitable account; but it is more than probable, that the oysters would be found and fished up, long before they became of value, or, not being found, die off, rich in pearl, quiescent on their native beds.

Writers on Political Economy.

Their objections answered.

## CHAPTER VI.

*Idoltrous Temples—The claims of their Priests refused—They appeal to the Secretary of State—The Secretary of State concedes their claims—Nature of Claims—Claims evaded—Mr. Lee's report—He shews the claims to be unfounded—Alms Oysters from the Divers—Influence of Romish Priests—Observations on the monopoly of the Pearl fishery.*

**Idoltrous Temples.** At the pearl fishery of 1832 several boats, in addition to the number stipulated in the contract with the Renter, were allowed to fish for the benefit of certain Idoltrous Temples in Hindostan. At the preceding pearl fisheries we had attended, this very doubtful privilege had been withheld by order of His Excellency the Governor Sir Edward Barnes, who considered it inconsistent with the bearing of a Christian Government to contribute towards the support of such Temples, and as they were not situated within the territory of Ceylon. they could have no political rights connected with its fisheries.

The claims of their Priests refused.

\* See Appendix page 67.

Notwithstanding the decided refusal repeatedly given to the Hindoo Priests, who were deputed by their respective Temples to urge their pretended claims upon the Superintendent of the Pearl fisheries, they unceasingly continued to plead, and at length they petitioned the Government of Madras, whose subjects they are, to support their claim to share in the Ceylon pearl fisheries and to urge its favourable consideration upon the Government of Great Britain. An appeal was accordingly made to the Home Government, supported by the Honorable the East India Company's authorities upon the supposed principle, that the privilege claimed by the Hindoo Priests was a concession made in favour of their Temples by both the Dutch and the British, on taking possession of these parts of India; and that it had been uninterruptedly enjoyed by them until the administration of the Government of Ceylon by Sir Edward Barnes.

They appeal to the Secretary of State.

In the absence of proof to the contrary, the Home Government viewed it as a political and religious right, which, in justice, should not be interfered with, and the Secretary of State for the Colonies instructed the Governor of Ceylon, to allow those Temples of Hindostan, that had previously enjoyed the privilege, again to share in the pearl fisheries of the Gulf of Manaar.

The Secretary of State concedes their claims.

After the receipt of the orders from the Secretary of State, the point to be established by the Priests was, whether they had previously enjoyed the privilege to the extent of their claim. The proof they adduced consisted in copper plates, called sannasses, with certain characters engraven upon them, (which had to be translated by the Interpreter to the fishery,) and supported by the evidence of persons, who had been present at former fisheries, and had seen boats employed fishing for the benefit of the Temples.

Nature of their claims.

The extent of the privilege claimed by the Priests consisted in the right to employ one or two boats for each Temple to fish upon the banks with the Renter's boats, free of payment to Government or to the Renter; but not to fish upon the banks after the Renter's period had expired, and the fishing continued on account of the Government, or as it is called, in "Aumonie."

The circumstance of the privilege being confined to the periods, for which the fishing of the banks was rented, strengthened a suspicion long entertained, that the Temples did not hold the privilege from any Government of Ceylon, native or European;—but from wealthy Hindoo merchants, who had formerly been the renters of these fisheries; and that the only concession made by former Governments of Ceylon would appear to have been, that they did not include such Temple boats as the Renters allowed to fish, in the number of boats they had paid for, but suffered them to fish in addition to the Renter's boats.

In those days when the fisheries were not so frequent, and were conducted upon a much larger scale, consisting of several hundred boats, and extended over a whole bank, the addition of seven or eight boats was comparatively of little importance among so many, either to Government or to the Renter; and as the Temple boats were distinguished by their respective banners in the general fleet, it is probable their presence had a beneficial effect in favour of the Renter, affording confidence and encouragement to his divers. But since it had been resolved to confine the periodical fishing to beds of oysters of mature age only, and not to extend the fishery over a whole bank, it became inconvenient at times, on account of the smallness of the beds, to employ more than fifty or sixty boats, and sometimes not so many. On such occasions, the addition of the Temple boats became a valuable and important consideration, and rendered it prudent on the part of Government to conduct the fisheries "in Aumonie," or on their own account, and to dispose of the oysters as they were brought on shore, in order to avoid the fishing on account of these Temples.\*

Claims evaded.

Much light has since been thrown upon this subject by Mr. George Lee, the Post Master General of Ceylon. With great industry and research, and with much public spirit and considerable ability, which have been acknowledged by the Secretary of State, this gentleman has

Mr. Lee's Report.

\* See Appendix pages 70—72, and 92.



selected and translated from the records of the Dutch in Ceylon, many interesting papers on the subject of the pearl fishery, and has satisfactorily shewn, that the Hindoo Temples and Priests never had the right, under any former Government, of sending boats to fish for pearl oysters free of payment; nor, that under any circumstances should they be permitted to do so in future under this Government.\*

Alms oysters from the Divers.

Besides benefiting by the above privilege, the Hindoo Priests are in the habit of collecting alms from the divers, amounting generally to about 245 oysters daily from each boat. At the fishery held at Calpentyn in 1832, the oysters were very scarce, and some of the divers objected to give the charity oysters to the Hindoo priests. On the complaint of the priests, who appeared to be under some impression, that the officers at the fishery had influenced the divers to cease giving the usual alms oysters, the boat people were assembled and publicly informed, that they were at perfect liberty either to contribute their oysters to the Priests, or to withhold them.

As Hindoo influence at the Ceylon pearl fisheries, since the practice of renting has been discontinued, has been rapidly on the decline, it is possible, that the Temples will soon cease to send deputations of Priests upon these occasions. But it is by no means certain, that these superstitious fishermen will withhold their alms oysters altogether, but transfer them to some other body of priesthood; and as the Parawa Divers are nearly all Roman Catholics, in all probability the Papist Missionaries will supplant the Hindoo Priests in obtaining alms from the Parawas.

Influence of Romish Priests.

Since the abolition of the revenue from edible fish rents, the Roman Catholic Priests have prevailed upon some of the fishermen of Negombo and Colombo to pay the rent, which they formerly paid to Government, to the Roman Catholic Church. This rent produced a yearly revenue of about £10,000,—but the Government of Ceylon believing it to be a severe tax upon the labour of an industrious and enterprising people, benevolently relinquished a revenue they could ill afford to spare. No sooner did they give it up, than the Romish Church succeeded in obtaining a large proportion of the benefit which had been thus relinquished by Government for the good of the Fishermen and the general consumers of fish.

Observations on the monopoly of the Pearl Fishery.

At the small fisheries of 50 or 60 boats, which had been found most advantageous, the Temple boats became a very serious tax; the oysters, which they took up, formed a large proportion of the whole fishery, and furnished one good reason of late for discontinuing the practice of renting the pearl fisheries; but it has not been acknowledged to have had such influence; indeed the chief reason which we have heard assigned for conducting the fishery upon Government account, and selling the oysters as they were brought on shore, lays claim to a principle of higher consideration, and demands from us some special notice in these papers.† It is assumed as an axiom; that selling the oysters by auction to the highest bidder encourages monopoly in the hands of the purchaser, or, as he is commonly called, the Renter; that it deprives persons of insufficient means from sharing in the profits of a first purchaser, and compels them to buy at second hand, and become sub-renters; and further, that selling the oysters by the thousand effectually banishes monopoly from pearl fisheries, and enables the most humble individual to share in the advantages of fortune in the speculation; and, that such proceeding is consistent with the duty of Government towards the people. This may appear to be exceedingly commendable; and that it is done in perfect sincerity there cannot be a question. But when we take into consideration the reckless habits and gaming propensities of the natives, and that speculations in pearl fisheries on a limited scale, are as uncertain as those in lotteries, the morality of both being exceedingly questionable, it becomes doubtful whether the bringing such speculations within the means of the poor, is not a public injury rather than an unmingled good: while at the same time, the mode adopted to effect this

\* See Appendix page 99.

† The fishery of 1799 appears to have been the first that was conducted upon Government account—vide Lieut Col. Robertson's report in the Appendix page

questionable object, is one which has a tendency to overthrow the legitimate right or influence of property, and to start a new principle in political economy—namely, that to put up any thing to public competition at a sale by auction, is the way to encourage monopoly. But whether this be the case or not, why should we be so desirous of discouraging monopoly if such monopoly is beneficial to the general community? It is true, that Mr. McCulloch and Miss Martineau, and some influential persons in Ceylon, object to such monopolies as the pearl fishery, and that the former writer declares it is of no value, “not equal to the expenses incurred in guarding, surveying, and managing the banks,” and that every one should be allowed to fish on paying a moderate license duty. But of what value are the opinions of such persons, no matter how eminent, when we know they are founded on error and misrepresentation? We have herein shewn, that the Gulf of Manaar pearl fisheries can only be made of general benefit to the community, by their being protected and preserved, or in the language of political economists, monopolized by Government. The Government of Ceylon are therefore the proprietors of a monopoly, or, I would rather consider them, the Trustees of a monopoly belonging to Ceylon, and so long as this monopoly is retained, it is the duty of the Trustees or Guardians of the interests of the community to adopt measures calculated to increase the revenue obtained from it, in order, that the taxes which bear directly upon the people may be lightened; and we should not take credit for opposing monopoly, while, in the performance of a public duty we are conducting one. Nor should we make a merit of that, which tends to deprive the wealthier natives of the legitimate influence of their property; to bring down an uncertain speculation within the means of the thoughtless poor; to place temptation before a people too prone to risk their substance on any game of chance.

These observations are not intended to be condemnatory of the system of fishing and selling the oysters on account of Government, if such is found to be the more profitable course: but are introduced to shew, that uncompromising opponents of monopoly often object to a mere name, and battle with a shadow; not considering whether such monopoly is the result of a bountiful Providence, or the work of man—natural or artificial; whether it be for the general good of the community, or whether it be otherwise. For the want of a proper regard to these distinctions, this Island has been, and is now, most seriously injured by measures founded on erroneous principles, by persons anxious beyond all question to do it service.

We would not be supposed to be favourers of monopoly, or of exclusive rights and privileges of some of the community to the injury of others;\* nor do we approve of trading Govern-

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\* If the policy which prompted the refusal of a Charter, limiting the liabilities of the shareholders in the late “Ceylon Agricultural Joint Stock Company” be sound, (and we do not question it) how very unsound must be that policy which conferred such chartered privileges upon a Company of strangers, who trade as cambists to the full as much in money with England and India, as other commercial establishments trade in it and general merchandize. This money trading company is therefore misnamed the “Bank of Ceylon.” We should not, however, so strongly object to its commercial speculations in money with other countries, though perhaps not the proper transactions of a local Bank, if they were conducted with no special advantages over other traders, as to the *Monopoly* in the money trade which has been conferred upon this company. It is allowed to issue paper money, founded upon no *real* security to the public. This paper moreover is stamped by the Government free of payment of the stamp duty, whereby the operation of the law of the land is suspended in its favour; and consequently its paper money becomes equivalent to a loan *without interest* (if not to a free gift) to the full amount which is thus put into circulation. These privileges and indulgences, as well as the limitation of the liabilities, are not enjoyed by other traders. They are such as no man, or body of men, should possess in Ceylon, or can possess without fearful risk in many respects of baneful consequences to the community: moreover, they are inconsistent with the general policy of its Government, as opposed to *MONOPOLY*, since 1833.

In the course of a few years, when Banknotes are circulated to all parts of the Island, let us suppose (a possible, we earnestly hope not a probable case, although we know the Bank of England has been in danger, and saved by a well known wealthy Capitalist) that the Bank, like banks of issue in other countries, should stop payment. It would then be in vain to enquire what security this Government had taken for its people's indemnity, before it permitted the issue to them of Banknotes, which it has not sufficient confidence to receive in payment of revenue, or for any other Government service.

Whatever may be the case in other places (with which we have nothing to do) it is our duty to consider the baneful effects of a superabundant money circulation (particularly fictitious paper) upon an insufficient producing population, depressing the value of money in regard to labour and the prices of all articles of produce and colonial manufacture for domestic consumption and use, and leading to over-trading, ruinous speculations, and extreme distress. If we consider these things dispassionately, it is evident that the issue of paper currency in Ceylon should have been rigidly confined to its Government; and as a greater amount of paper circulation is required for the convenience of the public, than is supposed by

ments. But when a beneficent Providence blesses a country with a peculiar benefit, it is right in the Government of that country jealously to preserve and monopolize such natural advantage for the good of its people generally, and not be induced to sacrifice it to popular clamour or delusive theory. Would that the natural growth of the finest Cinnamon had been preserved or monopolized to Ceylon, and the spice offered to the world at a price which would have been no temptation to cultivate it in other countries! The consequences of a contrary policy were foreseen by those who could not prevent it. These consequences now seriously depress the advancement and prosperity of Ceylon; they have done so for several years past, and have now produced a state of things, which, in a revenue or financial point of view, can hardly be more deplorable. Now we see the impolicy of a high export duty, acting as a bounty to induce other countries to cultivate cinnamon and compete with Ceylon. Now we see that the high export duty imposed at the opening of the trade, should have been yearly reduced until it came to about a tithe of the produce, which, as the land in Ceylon is not taxed as it is in less favoured possessions, might have been collected on the export of the spice. Now we see the impolicy of selling the Government Cinnamon plantations, while an exorbitant export duty is levied on their produce. And now there is but one opinion on this important subject; all persons call, and call wisely, for a reduction of the export duty, as the only means of preserving to Ceylon some of its natural advantages in producing the finest cinnamon in the world.

Ceylon has not only suffered in consequence of the application of delusive theories to its natural productions,\* but it has lost some thousands by the futile attempt to fix the rate of Exchange on England, and prevent fluctuation in the value of its currency. Thousands have been lost during the years this unsound financial scheme was wearing away by circumstances. We have seen the consequences of these false theories too plainly to yield at all times to the opinions of writers upon political economy, no matter how justly celebrated, and because these writers have condemned the Ceylon Government for preserving the monopoly of the pearl fisheries, it by no means follows that these fisheries should be abandoned and lost to both the Government and the community.

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Government to be necessary for its purposes, it could have met the pressing demands of the public, by judiciously supplying it, under certain careful limitations and restrictions, with Treasury notes on the mortgage of real, not speculative, property, charging for the same a moderate rate of interest, the payment of which would have resembled a tax on real property with the great advantage of its being paid voluntarily by the borrowers of the paper money from the Treasury.

J. S.

\* It has been remarked by high authority, that while the Charters of justice, transmitted from Downing street to the colonies in general, have worked well and been suited to the inhabitants, those sent to Ceylon—although drawn up with the greatest care and by the most able men—have proved so repeatedly defective, as at length to induce the Secretary of State to leave Ceylon, through its local legislature, to frame a Charter for itself. But even here, with all the local experience we possess, it will be found no easy matter:—nor is this to be wondered at, when we reflect, that Ceylon is not a Colony planted by Europeans; but, a conquered country with a climate inimical to European labourers, the inhabitants of which possess certain laws, usages, privileges and customs, in some measure peculiar to each tribe, and which have been guaranteed to them by treaties solemnly ratified by Great Britain. It is therefore in vain to attempt to treat these Indians as British colonists instead of a conquered people;—and it is this vain attempt, that has occasioned so much apparent inconsistency and difficulty in our rule in Ceylon. We profess to govern for the exclusive good of the natives of the country, and turn all our thoughts and actions to make the soil profitable to European adventurers. It is supposed, that Ceylon has been selected to prove the effect of new measures that were in contemplation for our government in India. Whether this be really the case or not, it is well for Great Britain, that the experiment has been tried where it is,—for if such measures were adopted by the government of India, they would sap the foundation of our Eastern Empire.

## **APPENDIX.**

## APPENDIX.

*Statement of Revenue accruing to the Government of Ceylon from the Pearl Fisheries from 1828 to 1837.*

1828.				
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Amount collections of the Pearl Fishery at Arippeo of 1828				
M. Rupees .....	327550	12	2 $\frac{3}{4}$	
Deduct charges .....	15594	10	1 $\frac{1}{4}$	£ s. d.
				<hr/>
Net Proceeds	311956	2	1 $\frac{1}{4}$	31195 12 3
1829.				
<hr/>				
Amount collections of the Pearl Fishery at Arippeo of 1829				
M. Rupees .....	407570	12	0	
Deduct charges .....	10304	15	7	.
				<hr/>
Net Proceeds	397265	12	5	39726 11 6
1830.				
<hr/>				
Amount collections of the Pearl Fishery at Arippeo of 1830				
M. Rupees .....	251915	0	0	
Deduct charges .....	8224	7	3 $\frac{6}{7}$	
				<hr/>
Net Proceeds	243690	8	8 $\frac{1}{7}$	24369 1 0
1831.				
<hr/>				
Amount collections of the Pearl Fishery at Arippeo of 1831				
M. Rupees .....	328758	0	0	
Deduct charges .....	11293	14	5 $\frac{4}{7}$	
				<hr/>
Net Proceeds	317464	1	6 $\frac{3}{7}$	31746 8 14
1832.				
<hr/>				
Amount collections of the Pearl Fishery at Karedivoe of 1832				
M. Rupees .....	£ 4581	0	0	
Deduct charges .....	711	1	7 $\frac{1}{4}$	
				<hr/>
Net Proceeds.....				3869 18 4 $\frac{1}{4}$

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## 1833.

Amount collections of the Pearl Fishery at Arippe of 1833	32059	10	11 $\frac{1}{16}$			
Deduct charges .....	7016	0	11 $\frac{1}{16}$			
Net Proceeds .....				£	s.	d.
				25043	10	0

## 1835.

Amount collections of the Pearl Fishery at Arippe of 1835	40346	0	9			
Deduct charges .....	2099	0	0			
Net Proceeds .....				38247	0	9

## 1836.

Amount collections of the Pearl Fishery at Arippe of 1836	25816	3	11 $\frac{1}{2}$			
Deduct charges .....	2280	8	1 $\frac{3}{4}$			
Net Proceeds .....				23535	15	9 $\frac{1}{2}$

## 1837.

Amount collections of the Pearl Fishery at Arippe of 1837	10631	4	9 $\frac{3}{4}$			
Deduct charges .....	1233	9	4 $\frac{1}{2}$			
Net Proceeds .....				9397	15	5 $\frac{1}{2}$
				£ 227131	13	3 $\frac{1}{2}$

*Statement of Revenue accruing to the Government of Ceylon from the Pearl Fisheries from 1799 to 1820.*

## 1799.

Amount collections of the Pearl Fishery at Arippe of 1799 .....	Str. Pagds.	94,254	16	62			
Deduct Charges and Commission .....	Pagds.	17972	16	5			
Remission .....	„	14096	9	0	32,068	25	5
					£	s.	d.
Net Proceeds Str. Pagds.		62,185	36	57.	or 23319	7	6

## 1801.

Amount collections of the Pearl Fishery at Condatchy of 1801 .....	Str. Pagds.	37556	31	1			
Deduct charges &c. ....		5501	44	2			
Net Proceeds Str. Pagds.		32,054	31	79	or 12020	5	0

1803.

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Amount collections of the Pearl Fishery at									
Chilaw of 1803.....	P. N. Pagds.	43159	29	3					
Deduct charges and Commission .....		2821	15	0					
Net Proceeds P. N. Pagds.		40638	14	3	or	12191	8	0	

1804.

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Amount collections of the Pearl Fishery at									
Arippo of 1804.....	P. N. Pagds.	190144	27	0					
Deduct charges and Commission .....		5796	12	0					
Net Proceeds P. N. Pagds.		184348	15	0	or	55304	8	0	

1806.

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Amount collections of the Pearl Fishery at									
Arippo of 1806.....	Rds.	386997	10	2					
Deduct charges &c. ....		12516	6	0					
Net Proceeds Rix dollars		374481	4	2	or	28086	2	0½	

1808.

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Amount collections of the Pearl Fishery at									
Arippo of 1808.....	P. N. Pagds.	242086	48	0					
Deduct charges and Commission .....		5643	45	0					
Net Proceeds P.N. Pagds.		236443	3	0					
or Rix Dollars .....		771507	1	2	or	57863	0	8½	

1809.

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Amount collections of the Pearl Fishery at									
Arippo of 1809 .....	P. N. Pagds.	73173	37	0					
Deduct charges and Commission.....		1759	41	40					
Net Proceeds		71413	49	40					
or Rix dollars		249288	7	2	or	18696	12	11½	

1814.

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Amount collections of the Pearl Fishery									
at Arippo of 1814 .....	Rds.	1202052	6	1					
Deduct charges and Commission .....		41443	1	3					
Net Proceeds Rix Dollars		1160609	4	2	or	87045	10	6½	

## APPENDIX.

1815.

			£.	s.	d.
Net Proceeds of the Pearl Fishery at Chilaw .....	4858	0	3½	or	364 7 1½

1816.

### Amount collections of the Pearl Fishery at

Arippeo of 1816 ..... Rds. 47361 10 1

Deduct amount refunded to the

Renter by order of Govt. Rds. 36984 11 1

Charges and Commission	....	6291	0	1 $\frac{3}{4}$
------------------------	------	------	---	-----------------

$$\underline{\hspace{1.5cm}} 43275 \ 11 \ 2\frac{3}{4}$$

**Net Proceeds Rds. 4085 10 2¼ or 306 8 9¼**

1820.

### Amount collections of the Pearl Fishery at

Aripipo of 1820.....	Rds.	34753	9	0
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Deduct Charges and Commission .....	5520	2	2½
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Net Proceeds Rds. 29233 6 1½ or 2192 10 3⅜

**£ 297390    0   11½**



*Notes taken at Condatchy on Tuesday the 15th, March 1831, on an enquiry made by order of the Commissioner of Revenue, of several respectable Natives, respecting the indications which mark the age of Pearl Oysters.*

Comarasamy Modeliar, Interpreter to the Fishery, states as follows: "I generally form my opinion from the size and appearance of the shells. When the oysters are too young to be productive of pearl, the edges of the shells are soft, but as they approach maturity the shells become harder and the soft rim is worn away. The hinges of the shells become thicker, and the groove or space at the back of the hinge, which admits of the oyster opening its shells, becomes wider and deeper as the fish becomes older.

"Pearls may sometimes be found in oysters between three and four years old. But oysters should not be fished before the sixth year of their age is completed, and nearer the end of the seventh year the better, if they continue healthy. After six years they are liable to die off suddenly. Oysters may have lived for nine years, but it is generally admitted that they seldom exceed seven.

"An opinion may be formed of the age of oysters, both by the quantity and quality of Pearl which they yield. The pearls found in young oysters are very small, and of a pale white colour, which improves in richness and brilliancy as the age increases up to the seventh year, after which, if the oysters do not die, the pearls begin to lose their beauty of colour.

"Oysters adhere firmly in clusters to each other, or to rocks on the Banks, until they are 5 years old. The divers sometimes find it difficult to separate them from the rocks. After the fifth year, they fall off from the rocks and become scattered, and are more easily collected by the divers."

Manaar Adapanaar states: "The colour of the shells changes with the age of the oysters, and the edges of the shells are worn away and become harder; the score at the back of the hinge becomes wider; the shells are increased in thickness, and soon after 5 years the upper part of the upper shell commences to be worm-eaten. The age of the oysters is readily ascertained by the appearance of the shells.

"Pearls are found in Oysters of 4½ years of age, not earlier. The time to fish is soon after the sixth year, because after that period they may die off quickly."

Cheminina Chetty, Merchant, confirms the above in most particulars; he however places no dependence on the colour of the shells, and prefers conclusions drawn from the quantity and quality of pearl which the oysters produce.

Young oysters have pearls sometimes of a yellow tinge. Old oysters have pearls sometimes of a pink tinge. Large pearls are never found in young oysters.

Cauder Saib, Merchant, has attended eight or nine fisheries, and considers there is no difference in the colour of pearls produced in old and in young oysters taken from the same bank.

Manuel Pulley, has attended every fishery since 1814, he confirms the opinion of the Adapanaar, and states, that the shells of young oysters are of a reddish colour.

*Report on the Pearl Banks of Ceylon from Manaar to Negombo, addressed to His Excellency Jan Schreuder, Councillor Extraordinary of Netherlands India, Governor and Director of the Island of Ceylon.*

Colombo 20th June 1757.

ESTEEMED SIR,

Having been directed by your Excellency some months ago to examine minutely the Pearl Banks of Arippe, and to ascertain whether any Regulation could be made respecting

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them that might conduce to the advantage of the Company, I have with pleasure fulfilled your Excellency's Commission, being previously furnished for that purpose by your Excellency with the annual Reports of Inspection, and having further prepared myself by frequent conversations with the several Natives who had acquired sufficient experience respecting the Pearl banks of Calpentyn and Negombo, and whom I summoned for the purpose of giving me information.

In order systematically to report that which appeared to me remarkable in what I learned from these persons, I shall for the sake of perspicuity enlarge,

1. On the number of banks ;
2. On certain peculiarities concerning these banks ;
3. On the approaching inspection.

I found the real information respecting the banks so confused, that I can well conceive how it has happened that so little profit has been derived during a whole century from a source from which the Company might have drawn considerable advantage. The Map and Report from which our information was to be taken, were beyond conception defective and confused, and far from what might have been expected from the experience of persons who have become grey in the service, which clearly proves that this valuable source of commerce has been regarded with indifference in this Island.

Twelve Banks only are mentioned in the Map : Bengale, Ariepeepaar (this bank is placed on the Map without a name,) Naadekoedouw, Amewoeloendaan, Condaatie, Jagerboomsebank, Modregamme, Great Bank, Karrechewel, Welenjochewel, Kankoeppanepaar, Bank of Kaymelle.

But it appears, on the other hand, from the annual reports and the verbal statement of the Natives who are experienced in the subject of the Banks, that on these Reefs there are above 20 other banks according to the following statement.

#### MANAAR BANKS.

Chewelpaar,	Perriepaar or	Condatjepaar,
Modregammepaar,	Great Bank,	Periepaar karre
Akepaar,	Anewoelendaanpaar,	Periepaar,
Calletoedelpaar or	Arippoeppaar,	Anewoelendaanpaar.
Jaggery tree bank.	Bangalepaar,	
Condaatjipaar,	Chewelpaar,	
Aripoeppaar,	Modregammepaar,	
Bangalepaar,	Kalledietepaar,	

#### CALPENTYN BANKS.

Caretiwoepaar,	Chinemoetele Koeletoopaar,
Karroekoekalliepaar,	Caretiwoepaar,
Allentoerepaar,	Korroekoekalepaar,
Motoewarretoepaar.	Allentoerepaar,

#### NEGOMBO BANKS.

Oelewittepaar,	Oelewittepaar,
Gakkampettie	Gakkampettie, and 74 pearl oyster rocks.

#### CHILAW BANKS.

Marawilpaar.	Karkepanepaar,
Wannattepaar,	Nawalkarrepaar.

I think it worth while to have these Banks properly delineated on a Map, so that we may not in future be subject to a similar error: the more so as I have been informed that the exact situation of the Manaar banks is known only to the Master Attendant of Jaffna, Mr. Daniel Geersz, and that with the exception of that person there are none here who could point out the Reef; if this be true, it is of sufficient importance that an accurate Map should be drawn up; and individuals selected for this service, either from the Marine Department, or from the Native Headmen of Jaffnapatam, as early as possible.

I shall now offer some remarks with respect to the places where these Banks are situated, namely, Manaar, Calpentyn, Chilaw and Negombo.

In the annual Reports of the inspection, and in the Map, eight Reefs at Manaar are generally noticed, namely the places mentioned above;—

Bengale, Ariepoebaar, Naadekoedoewe, Amevoeloendaan, Condatie, Jaggery-tree Bank, Modregamme, and Great Bank.

Although the names differ somewhat from each other, this is nothing novel, and further shews the necessity of an exact Map, on which the names of the banks may be accurately laid down and according to which all reports should in future be drawn up.

To these eight banks Saviel Martinyo and Caddeus Christovoe, both late Pattynghatyns of Manaar, have added the bank Periepaar Karre, differing according to their statement entirely from Periepaar, the latter being farther out in the sea than the former, by 12 or 13 and 14 fathoms.

To these nine banks is further added Akepaar, by Esteven de Lieme Harpenaar and Mira Kando Marcair, late Headmen of the Moors at Calpentyn, two able persons, and, according to my opinion, with sufficient experience on the subject of the banks. The number of banks is stated to be ten, unless these people have exaggerated, which I do not suppose they would have done.

This at least can be depended upon, that in the report made in the year 1755, Akepaar is also mentioned; consequently there are nine Reefs at Manaar—but in the latest report of inspection of the 25th. November 1755, no mention whatsoever is made of this bank Akepaar, which proves that this Reef was not inspected at the last fishery.

With regard to Periepaar, I have particularly to observe that several old people amongst the intelligent natives wanted to persuade me that this bank extends from Manaar to Negombo, and that at the latter place it has the name of Gakkampitte, whereas opposite Manaar it is situated in the sea, 13 or 14 fathoms out.

This statement seemed to me very plausible, because *Periepaar* signifies *Great Bank*, and is so named by our people also in the Map—although its circumference is much smaller than that of Arippe and Modregamme. As a proof that we have hitherto neglected to obtain an accurate knowledge of Periepaar, I must notice the omission to mention its depth in the Map, although it is the chief bank and mother of the reefs, which receive their young oysters from it, according to the statement of the most intelligent natives.

Opposite Calpentyn, or rather the Island of Carretivoe the following banks are only marked on the Map, Karreehewel, and Welengoechewel.

But the above mentioned Esteven de Lieme and Mira Kando Marcair have given in a statement of three Reefs, with which some Reports agree, namely Carretivoebaar, Karroekoe-kalliepaar, Alentoeroepaar.

These banks have been known from ancient times, but the people informed me that there are, besides these banks, two more valuable Reefs opposite Calpentyn, which have not as yet been discovered by any of our divers, and they undertook to point them out at the ensuing inspection, provided your Excellency would favor them with an opportunity to do so—which I promised should be given them, and I further told them that the employment was open to all, without respect of persons, on no other condition but fidelity, zeal and ability. This assurance encouraged them in such a manner, that they immediately told me that opposite to the flag-staff of Calpentyn, to the depth of 6, 7, 8 and 9 fathoms, was situated the bank

Moetoewarettepaar, 9 miles in circumference and another also opposite Calpentyn, and close to the land, Chinnemoetele Koelettepaar to the depth of  $4\frac{1}{2}$  to 8 fathoms, 6 miles in circumference. They undertook, at the same time, to point out not only these banks of Calpentyn at the ensuing inspection, but also if it meets with your Excellency's pleasure, the Negombo Reefs, Oolavittipaar and Gakkampittie, of which they had as thorough a knowledge as of the other extensive Oyster Rocks lying opposite to that place. In the report of the inspection made on the 6th March 1754, the banks are thus mentioned: Koerewenkodil, Narrekallie, Nagekadoe, Moetoe pande, and Karroekoepanne Periepaar; which differs from the native reports of the 18th February 1755 wherein the same banks are thus entered; Marawil, Oeloewitte, Ambelam, Karhepane, Wannatiepaar and Nawalkarrepaar.

The Interpreter to the Secretary of Police at this place attended the last inspection of these banks and declared to me that he possessed a thorough knowledge of their situation.

These are the reefs concerning which for some years so many disputes have arisen. The Kandians also dive here every year. According to the last report of the 18th February 1755, the King's Dhoney people informed our Commissioners, while on their last visitation, that they had been then occupied on the spot for four months, diving for oysters, which according to my humble opinion is allowing them too great a latitude, considering the *dominium maris* along the Coast around the Island legally appertains to the Company alone.

But I doubt of our ever being able to derive any considerable profit from the banks, supposing that the Kandians in no manner interfered with them, unless the King permits us to deposit the oysters on his ground, which I also doubt his allowing. These Reefs, as I have been informed, (with the exception of Oeloewittepaar) lie too far from the Company's nearest shore, insomuch that a whole day is required for the purpose of going to and from this spot, consequently I think it advisable, in order to avoid all unnecessary broils with the Court of Kandy, to dispense in future with the inspection of the banks of Chilaw entirely.

Opposite Negombo lie Reefs Oeloewittepaar and Gakkampittie.

The Natives who possess a knowledge of this matter say, that the latter Reef is the same Periepaar, or great bank alluded to above by me under the head of Manaar; that it extends from that place to this in a connected chain of flat rocks; they lie 12 or 14 fathoms deep, and have been inspected more than once, and great expectations were entertained from them during the last year. Three fishers of Negombo, Anthonan Siman, Francisco Fernando and Alfanso Fernando, with whom I conversed on the subject agreeably to your order, have undertaken to point out this reef, as also that of Oeloewittipaar and a number of other oyster rocks, at the ensuing inspection of the banks.

Allow me now to make some observations to your Excellency with regard to the ensuing inspection of the banks.

I think that this business should be undertaken by different parties; the inspection of the one party should be wholly directed to the extensive banks of Manaar, and that of the other to those of Negombo.

At Manaar, the Master Attendant of Jaffna should point out the banks, as was hitherto the practice; and as I have been informed that this gentleman is the only person who possesses an adequate knowledge of these banks, I think that orders should be sent to Manaar and Jaffnapatam, that on the occasion of the next inspection, some efficient person either from the navy or from the natives, be directed to accompany him, in order to acquire not only a theoretical, but also a practical knowledge of the business, so that, in case of his death or any other unforeseen event, we may not be left totally unacquainted with the position of the banks.

The European part of the commission of inspection should be people accustomed to the inconveniences of the sea, and who do not regard any difficulty in the execution of their duty, having the welfare of the Company as well as that of the public constantly in view; for I really think that it is principally owing to the superficial manner in which the commissioners generally perform their duty that many valuable banks have not been thoroughly examined and

inspected in the manner they ought to have been. Your Excellency must excuse me if I make use here of an old yet trite saying, "that with unwilling dogs we are to expect but a poor hunt."

It would be desirable that to each party of Inspectors a hydrographer should be attached to lay down the precise situation of the banks at Manaar, Calpentyn and Negombo in an exact manner.

The inquiry with regard to the point of difference concerning Periepaar and Periepaar karre might be referred to the inspecting commission of the banks at Manaar, as also the extent and depth of the former, as it does not appear in the Map.

In case these two Reefs really differ from each other, according to the assertion of the Native chiefs, and if Akepaar must also be considered as a separate bank, then we shall have to inspect in future 10 instead of 8 banks. The middle of September or the early part of October is said to be the best season for the purpose of visiting the banks.

The chiefs of Jaffnapatam and the Company's servants at Manaar and Calpentyn should receive early notice to provide the inspecting commission with the requisite Dhonies and to make all the preparations necessary.

The second set of Inspecting Dhonies of Calpentyn should consist of seven boats. This commission of Inspection should be entrusted to Esteven de Lime, Harpenaar, Mira Kando Markair, late head of the Moors, Pedroe de Lime, assistant Pattangatyn, together with Wayrawen, Harpenaar, now residing at Calpentyn, under the Superintendence of two European commissioners; the two former will point out the banks, Caretivoepaar, Karrakoeekallepaar, Alentoerepaar, Mottowarretoepaar, Chinemoettele Koelettepaar, at Calpentyn; as also Oeloe-wittepaar, Gakkampittie and a great many more Oyster-rocks opposite Negombo.

One of our Vessels should be assigned to each party for the purpose of remaining at the banks especially at nights, as it often happens that the banks cannot be fully inspected in one day, it being of no slight consequence to have them properly examined in every direction.

I have the honor to be, Sir, Your Excellency's

very obedient humble Servant

(Signed) S. A. HEMME.

*A Statement shewing the general practice of the Boat people employed at Pearl fisheries in sharing the Oysters which are allotted to the Boat and its crew.*

A Boat fully manned for the Pearl fishery has the following number of persons on board belonging to it viz:

10 Divers

10 Munducks, or rowers, who also attend the Divers when fishing

1 Toda, or boat keeper, to bale out the water

1 Tindal, Steersman, or Master

1 Sommanotty, or owner of the Boat, in all 23 persons. It sometimes happens, that the Owner does not go in the boat trusting to the Tindal for his share, and not unfrequently the boat belongs to the Tindal, which reduces the number of persons to 22. Besides these persons, the parties entitled to receive the Government three fourths share, send a Peon to watch that none of the Oysters are opened in the Boat.

The Sommanotty, Tindal and Toda share together;—they have the choice of the produce of five dives, or nets full, from each stone, selecting of course those nets which contain most oysters. Now as there are five stones to each Boat, these three persons have 25 nets of oysters set apart for them, three-fourths of which, they have to give to the Renter as the Government share, and the remaining one fourth is divided into three shares, each person having one.

There are 5 stones to each boat, each stone has two Divers and two Munducks—the oysters picked up by these two divers and two munducks are kept distinct from those picked

up by divers and munducks belonging to other stones, and the oysters previously taken by the parties before-mentioned ; so that when the boat reaches the shore.—the divers and munducks belonging to each stone carry their oysters into the Cottoo on the shore, and the owner of the boat, the Tindal and Toda carry their oysters into the Cottoo also.

Now as there are five stones in a boat, the oysters landed from one boat are displayed on the ground in six heaps, that is one heap for each stone, and the heap belonging to the Owner of the Boat, the Tindal and the Toda. The parties belonging to each heap divide it into four equal shares ; and the Renter, or the Officer entitled to receive the Government share, selects three shares out of the four from each of the six original divisions. These 18 parcels of oysters, being put together, comprise three-fourths of all the oysters fished by the divers of one boat, and are instantly removed from the spot by coolies employed either by the Renter, or by the Government, as the case may be, to their depository.

The Boat people are now left with six heaps of oysters, being one fourth of the whole brought on shore in the Boat.

The Tindal, Sammanotty and Toda, divide their heap equally between them.

The other five shares have each to undergo another deduction:

First, the privilege oysters to the Government Officers, at the following rates.

The Commandant	2 Oysters from each Stone.			
„ Master Attendant	2	do.	„	do.
„ Interpreter	2	do.	„	do.
„ Cutwall	2	do.	„	do.
„ Clerks in the Cutcherry	2	do.	„	do.
„ Shark Charmer	2	do.	„	do.
„ Buoy Boats	2	do.	„	do.
„ Number Man	1	do.	„	do.

75 Oysters from each stone or 375 oysters from each boat. These oysters are deducted by order of Government, and when Government place a peon in a boat, he also is allowed 1 Oyster from each Stone.\* Besides these deductions from the Fishermen, there is an old custom, enforced by the rich Hindoos, who are generally the principal speculators in the fishery, to collect from each stone, a quantity of oysters as tithes, or, as they call them, charity oysters, for the Hindoo Temples on the coast of India. This quantity varies from 12 to 48—it is extremely doubtful, whether the value of these oysters are always paid to the Temples ; but if it is, it is, nevertheless, a great hardship on the boat people, who are not Hindoos but Christians and Mussulmen. After all these deductions have been made, the divers and munducks divide what remains to *each* stone into three shares, each of the two divers take one share, and the two munducks have one share between them ;—so that the share of a diver is double that of a munduck, or boatman.

The above practice is continued for 5 days but on the sixth day, the boat-owner takes all the oysters from the crew of the boat, as his daily share would certainly not remunerate him for the expense of his boat and her fittings.

Suppose a boat came to the shore with the following quantity of oysters viz :

	Oysters.	Govt. share.	Boat people's share.
Stone No. 1.	2000.	1500.	500.
„ 2.	3000.	2250.	750.
„ 3.	2000.	1500.	500.
„ 4.	3000.	2250.	750.
„ 5.	4000.	3000.	1000.
Toda, Tindal and } Sommanotty..... }	600.	450.	150.

\* Since 1835, these privileges have been discontinued, and the officers of the fishery compensated by Government.

*Take for instance the oysters belonging to stone*

No. 1.....	2000
Deduct $\frac{1}{4}$ or Government share.....	1500
	<hr/>
	500
Ditto—Government Officers' privilege .....	75
	<hr/>
	425
Ditto—Charity oysters taken for the Temples	23
	<hr/>
Divide in 3 shares .....	402
	<hr/>
One Diver's or two Munducks' share of oysters	134

## GOVERNMENT ADVERTISEMENT

## PEARL FISHERY.

1. Notice is hereby given that a considerable Pearl Fishery will take place at Arippe in the Island of Ceylon on or about the 25th of February 1829, and that the Bank to be fished is the Chivilpaar East and South.

2. It is therefore recommended to all such Boat Owners and Divers as may wish to be employed at the said Fishery that they should be at Condatchy on or before the 10th February next.

3. The number of Boats to be employed will probably be Two Hundred for fifteen days, and will be put up to auction in convenient lots at Condatchy for the whole time allowed for fishing the Bank, if not previously sold in manner hereinafter to be stated.

4. The arrangements of this Fishery will be the same as have been usual on similar occasions.

5. The Biddings to be in Madras Rupees, but payments may be made in Ceylon Currency and other coins at the following rates.

## WEIGHT.

## Dwt. Grs.

52	56	Star Pagoda ( <i>old</i> ) .....	3 $\frac{1}{2}$	Madras Rupees each
45	82	—do. do. ( <i>new</i> ) .....	3 $\frac{1}{2}$	do. do.
52	14	Porto Novo Pagoda .....	2 $\frac{13}{16}$	do. do.
204	71	Sicca Gold Mohur .....	16 $\frac{7}{16}$	do. do.
180	„	Madras Gold Mohur .....	15	do. do.
180	„	Bombay Gold Mohur ( <i>new</i> ) .....	15	do. do.
178	„	Ditto do. ( <i>old</i> ) .....	14 $\frac{1}{2}$	do. do.
178	„	Surat Gold Mohur .....	14	Madras Rupees 7 Annas and 11 pice
191	91	Sicca Rupee ( <i>new</i> ) .....	1	Madras Rupee and 6 pice each.
179	66	do. do. ( <i>old</i> ) .....	15	Annas and 4 Pice each.
180	„	Bombay Rupee ( <i>new</i> ) .....	15	do. and 6 do.
178	„	Surat Rupee .....	15	do. and 3 do.

*Ceylon Currency at the rate of 16 fanams per Madras Rupee.*

6. Bills on the Agents of this Government in Calcutta, Madras or Bombay will in like manner be taken on Letters of Credit being produced to warrant the drawing of Bills on the said Agents.

7. Bills on England will also be taken, on the Agent of this Island, and the Honorable the Court of Directors calculating the Pound Sterling into Madras Rupees at the rate last reported by the Agents at Madras of the Exchange there.

8. The Terms of Sale, ready money.

9. The Fishery will be superintended by the Commissioner of Revenue assisted by the Supervisor and Inspector of the Pearl Banks.

10. And Notice is further given that the Commissioner of Revenue will receive sealed Tenders from such persons as may be desirous of becoming Purchasers of the whole of the Boats, and the highest offer, if approved of by Government, will be accepted.

11. A Deposit of 20 per Cent to be paid upon the signing of any contract entered into, and the Remainder by Instalments as has been usual.

12. No Tender will be attended to which does not express in words the exact sum offered in Madras Rupees for each Boat, or received after one o'clock on Saturday the 30th day of January next, nor any noticed unless the party, or an Agent for him, attends.

The following Statement of the produce of 3,156 oysters taken from the Bank at the recent Inspection is published for the information of such persons as may be desirous of becoming purchasers of the fishery and to enable the Public to form a judgment as to the correctness of the Value put upon the specimens of the Pearls.

By order of His Excellency the Governor,

(signed) JOHN RODNEY

Chief Sec. to Govt.

Chief Secretary's Office  
Colombo 25th November 1828.



## STATEMENT.

No. of Oysters taken in each Bank.	Description of the Bank	Size.	Quality and Quantity of the Pearls extracted.			VALUE OF PEARLS.			RATE OF VALUATION.		
				Chow	Kallingee	Manjady	Madras Rupees	Fanams of Ceylon at 16 per Rupee.		Pice.	
2,145.	Chivil paar East.	80th Basket	Annie 2 Pearls	12 320	0	100 320	1	3	0	At 11 P. N. P. per Chow	
		80th do.	Kayerrel 3 do.	7 320	0	90 320	0	8	0	At 8 do. per do.	
			Kalippo.....	0	0	180 320	2	11	0	At 12 do. per Kallingee	
		100th do.	Vadivoe .....	64 320	0	2100 320	9	8	0	At 7 do. per Chow	
		200th do.	ditto .....	3180 320	0	3180 320					
		400th do.	ditto .....	30 320	0	3					
		600th do.	Pearls .....	0	0	3160 320	7	10	0	At 2½ do. per Kallingee	
		800th do.	ditto .....	0	0	3					
		1000th do.	ditto .....	0	0	2					
			Tool .....	0	0	8	1	2	0		
			Peasel .....	0	0	240 320					
			Shell Pearls ...	0	0	0					
		Total			0	1	1290 320	22	10	0	
		Average produce of 1,000 Oysters						10	8	3	
1,011.	Chivil paar South.	50th Basket	Annie 1 Pearl	4 320	0	40 320	0	7	1	At 11 P. N. P. per chow	
		80th do.	Kalippo .....	0	0	1260 320	3	2	0	At 12 do. per Kallingee	
		100th do.	Vadivoe .....	36 320	0	1100 320	5	9	2	At 7 do. per chow	
		200th do.	ditto .....	220 320	0	2180 320					
		400th do.	ditto .....	12 320	0	80 320					
			Peasel Kuroal	0	0	1	0	12	0	At 5 do. per Kallingee	
		600th do.	Pearls .....	0	0	2					
		800th do.	ditto .....	0	0	280 320					
		1000th do.	ditto .....	0	0	80 320	4	6	0	At 2½ do. per Kallingee	
			Tool .....	0	0	260 320					
			Peasel .....	0	0	4					
			Shell Pearls ...	0	0	0	1	0	0		
		Total			0	1					0
		Average produce of 1,000 Oysters									

Musters of the Pearls may be seen at the Revenue Office.

Commissioner of Revenue's Office

Colombo, 19th November 1828.

(Signed) ROBERT BOYD

Commissioner of Revenue.

N

## GOVERNMENT ADVERTISEMENT.

## PEARL FISHERY.

Notice is hereby given that a Pearl Fishery will take place at Aripo in the Island of Ceylon, on or about the 1st of March 1836 and that the Banks to be fished are as follows:—

The North part of the Chivelpaar Estimated at 100 Boats for 3 days.

The South part of the Chivelpaar Estimated at 100 Boats for 4 days.

The Moderogammo Estimated at 100 Boats for 10 days.

It is therefore recommended to such Boat Owners and Divers as may wish to be employed at the said Fishery, that they should be at Aripo on or before the 20th of February next.

The number of Boats to be employed will be One Hundred for Seventeen days.

The Fishery will be conducted on account of Government, and the Oysters put up to Sale in such lots as may be deemed expedient.

The arrangements of the Fishery will be the same as have been usual on similar occasions.

All payments to be made in ready money in Ceylon Currency, or in the Coins and at the rates specified in the Government Advertisement of the 14th December 1833.

Bills on the Agents of this Government at 'Ten days' sight will in like manner be taken, on letters of credit being produced to warrant the drawing of Bills on the said Agents.

For the convenience of Purchasers the Treasurer at Colombo and the Government Agents have been instructed to receive deposits in money from such persons as may be desirous of becoming purchasers and the receipts of the Treasurer and Agents will be taken in payment of any sums due on account of the Fishery.

There is reason to expect that the Fishery may continue for a further time beyond that specified above.

By order of the Right Honble the Governor,

P. ANSTRUTHER

*Col. Secy.*

Colonial Secretary's Office,

Colombo, December 4th 1835.

## STATEMENT.

Number of Oysters taken from the Bank.	Description of the Bank.	Size	Quality and Quantity of Pearls extracted		Weight of Pearls extracted		Value of Pearls.			Rate of Valuation.	
			Chow.		Kallingee	Manjady	M. Rs.	A.	P.		
5,296	Chivilpear North	80th Basket	Annie ... 1 Pearl	4 320	.....	40 320	"	5	2 5	at 8 S. P. pr. Chow.	
		30th do....	Annatari.. 1 do.	46 320	.....	.....	.....	2	8	1	at 5 S. P. pr. Chow.
		50th do....	Kayarel.. 3 do.	45 320	64 320	.....	.....	3	2	3 5	at 4 1/2 S. P. pr. Chow.
		80th do....	do. .. 4 do.	19 320	.....	.....	.....	.....	.....	.....	
		30th do....	Kallipo.. 3 do.	.....	.....	.....	.....	.....	.....	.....	
		50th do....	do. .. 13 do.	.....	.....	.....	.....	.....	.....	.....	
		80th do....	do. .. 29 do.	.....	.....	.....	.....	.....	.....	.....	
		50th do....	Kurrel .. 17 do.	.....	.....	.....	.....	.....	.....	.....	
		80th do....	do. .. 20 do.	.....	.....	.....	.....	.....	.....	.....	
		20th do....	Message.. 2 do.	120 320	.....	.....	.....	.....	.....	.....	
		100th do....	Vadivo .....	.....	.....	.....	.....	.....	.....	.....	
		200th do....	do. ....	305 320	.....	.....	.....	.....	.....	.....	
		400th do....	do. ....	.....	.....	.....	.....	.....	.....	.....	
		600th do....	Pearls.....	.....	.....	.....	.....	.....	.....	.....	
		800th do....	do. ....	.....	.....	.....	.....	.....	.....	.....	
		1000th do....	do. ....	.....	.....	.....	.....	.....	.....	.....	
			Tool .....	.....	.....	.....	.....	.....	.....	.....	
			Peasel.....	.....	.....	.....	.....	.....	.....	.....	
			Shell Pearls 1 10	.....	.....	.....	.....	.....	.....	.....	
Average produce of 1000 Oysters			Total	13	.....	190 320	148 12	4 40	1 15		

5,507. } Chivilpear South		80th Basket	Annie	6 Pearl	44 320	10 320	3	13	2	at 8 S. P. pr. chow.
		50th do	Anatario	3 do.	45 320	240	6	8	3	at 6 S. P. pr. chow.
		80th do	do	9 do.	50 320	120	5	7	2	at 5 S. P. pr. chow.
		30th do	Samudayam	3 do.	86 320	10	3	1	2	at 4 S. P. pr. chow.
		80th do	do	2 do.	320 100 14 320	320 110	13	5	3	at 12 S. P. pr. Kallingee.
		50th do	Kayarel	3 do.	34 320	210	5	14	1	at 7 S. P. pr. Kallingee.
		80th do	do	4 do.	63 320	220	40	7	1	at 4 S. P. pr. chow.
		20th do	Kallipo	3 do.	29 320	320	16	15	2	at 1 S. P. pr. Kallingee.
		30th do	do	4 do.	160 320	160	7	14	"	at 3 S. P. pr. Kallingee.
		50th do	do	8 do.	110 320	110	103	2	3	
		80th do	do	11 do.	320 240	320	18	12	"	
		30th do	Kurrel	7 do.	40 320	40	7	14	"	
		80th do	do	10 do.	320 220	320	103	2	3	
		100th do	Vadivoe		16 320	16	18	12	"	
		200th do	do		182 320	182	7	14	"	
		400th do	do		1 320	1	103	2	3	
		600th do	Pearls		18 320	18	18	12	"	
		800th do	do		1 320	1	103	2	3	
		1000th do	do		11 320	11	18	12	"	
			Tool		12	12	103	2	3	
			Peasel		240 320	240	18	12	"	
			Shell Pearls 15 m.		7	7	103	2	3	
			Total		619 320	619	18	12	"	
			Average produce 1000 Oysters		79 5320	79	18	12	"	

Number of Oysters taken from the Bank.	Description of the Bank.	Size	Quality and Quantity of Pearls extracted		Weight of Pearls extracted		Value of Pearls			Rate of Valuation.
			Chow.	Manjady	Kallinglee.	M. Rs.	A.	P.		
4,928	Modregampear	80th Basket	Annie... 3 Pearls	20 320	.....	160	1	12	"	at 8 S. P. pr. Chow.
		30th do....	Annatari.. 2 do.	64 320	.....	320	5	12	3	} at 6 S. P. pr. chow.
		80th do....	do. .. 4 do.	88 24 320	.....	200	5	12	1 5	
		50th do....	Kayarel.. 2 do.	36 320	.....	170	3	1	2 4	} at 4 1/2 S. P. pr. chow.
		80th do....	do. .. 5 do.	63 27 320	.....	320	2	4	1 5	
		80th do....	Kallipo.. 10 do.	.....	.....	1200	"	11	3 4	at 5 S. P. pr. Kallinglee.
		80th do....	Kurrel .. 5 do.	.....	.....	270	20	7	1	} at 5 S. P. pr. chow.
		100th do....	Vadivoe .....	.....	.....	320	15	"	4 1 5	
		200th do....	do. ....	54 1 320	.....	6 160 320	15	"	4 1 5	} at 3/4 S. P. pr. Kallinglee.
		400th do....	do. ....	.....	.....	10 160 320	"	9	3 10	
		600th do....	Pearls .....	.....	.....	80 15 320	49	11	3 10	} at 3/4 S. P. pr. Kallinglee.
		800th do....	do. ....	.....	.....	80 10 320	10	1	2	
		1000th do....	do. ....	.....	.....	80 12 320	18	206	18 320	
					Tool	.....	.....	240 15 320	3 320	
			Peasel.....	.....	.....	280	11 520			
			Shell Pearls 4 240 320	.....	.....	206	18 320			
			Total	.....	.....	11 520	10 1 2			
			Average produce of 1000 Oysters	.....	.....	18 320	10 1 2			

Musters of the Pearls may be seen  
at the Colonial Secretary's Office.

Colombo, 4th December 1835.

F. J. TEMPLER.

JAMES STEUART.

WILLIAM CHAS. GIBSON.

## RULES BY WHICH PEARL DEALERS ASCERTAIN THE VALUE OF PEARLS.

The price of Pearls is expressed at a certain rate per Chow, which term has reference to the quality ascertained from the size, the form, the colour, and the weight.

The weights in use are called the Kallingee and the Manjadi.

One Kallingee is equal to 20 Manjadies each containing  $7\frac{3}{4}$  Grains Troy.

These weights, and the Chow also, are supposed to contain 320 fractional parts.

The size of the pearl is first ascertained by sifting them through holes in the bottoms of brass saucers, which saucers are called baskets by the people, each saucer in succession having holes of a less size. The saucers fit closely into each other, the upper one, which is necessarily the smallest, No. 1, is pierced with the largest holes. The Pearls are first put into the upper saucer No. 1, this saucer is then taken up and shaken for the pearls to fall through the holes in it, into saucer No. 2;—all these pearls which do not pass through the holes in No. 1 are considered of the first size. This process is repeated through all the saucers, usually 10 in number.

The size of the Pearls being thus ascertained in the first instance, each size is then carefully examined as to form and colour; and are then subdivided into classes and valued accordingly.

The valuation is expressed at so much per chow, and the next operation is to ascertain the quantity of chow each class of pearl contains.

Each class is then put into the scale and its weight ascertained in Kallingee or Manjadi. The weight, whatever it may be, is then reduced to its lowest denomination, that is into 320 fractional parts of a Manjadi;—and the square of the number of these fractional parts is then ascertained.

Three-fourths of the product being divided by 320, gives the quantity of chow, as for example :

$$\begin{array}{r}
 \text{3 Pearls weighing } \frac{240}{320} \text{ Manjadies.} \\
 \begin{array}{r}
 240 \\
 240 \\
 \hline
 9600 \\
 480 \\
 \hline
 \text{Divide by 4) } 57600 \\
 \text{Deduct } \frac{1}{4} \text{ 14400 } 3) \text{ the Number of Pearls} \\
 \hline
 \text{Fractional parts 320) } 43200 \left( \begin{array}{l} 135 \\ 320 \end{array} \right. \\
 \begin{array}{r}
 320 \\
 \hline
 1120 \\
 960 \\
 \hline
 1600 \\
 1600 \\
 \hline
 \end{array}
 \end{array}
 \end{array}$$

$\frac{45}{320}$   
320. — say  $\frac{45}{320}$

3 Pearls weighing 1 Kallingee  $\frac{240}{320}$  Manjadies

1 Kallingee is equal to 20 Manjadies.

320 Fractional parts

20 Manjadies

6400 -  
Add 240 the fractional weight of the Manjadi

6640 } Squared  
6640 }

265600  
39840  
39840

Divided by 4) 44089600 Divided by =  
Deduct  $\frac{1}{4}$  11022400 3) = the number of Pearls

320) 33067200 (103335

320 320) 34445 (107  $\frac{205}{320}$  chow.

1067	320
960	2445
	2240
1072	
960	205
1120	320
960	
1600	
1600	

*Observations by the Hon'ble ROBERT BOYD Esquire, Commissioner of Revenue, on Reports on the Pearl Fisheries.*

#### Mr. JONVILLE'S REPORT.

It appears from Mr. Jonville's Report that there are only two Banks, viz : Chivil paar and Perrie paar, which are productive of Oysters, although 7 or 8 Banks are pointed out ; and that fishing seldom takes place in water deeper than 8 fathoms. It also appears from the same report that the Dutch used Diving Bells which were not found to answer the purpose expected.

Mr. Jonville observes that oysters fished up from a rocky bottom are more productive of Pearls than the same number taken from a sandy bottom. He also says that it is an opinion among the fishermen and pilots that the bank nearest the point of Kodremale is covered with oysters to the height of a man, and that the top ones alone are alive and adds that the banks change their nature—that is, are sometimes rocky at the bottom, at other times sandy.

He also states that it is an opinion among the fishermen and what he assents to, that an influx of a certain quantity of fresh water into the sea, is necessary for the production of Pearls.

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### REMARKS ON THE ABOVE STATEMENTS.

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It may be asked in the first place, why only two out of eight Banks are found productive of Oysters; The most probable answer is, that the depth of water on these two is more favourable for diving than that on any others, and that the two from their situation are less liable than the others to the sweeping currents that scour the surface of the Banks, and carry oysters and every thing else on the surface away with them.

The inapplicability of the Diving Bell to fishing for oysters, arises from the difficulty of working such a Machine and from the small surface included within its circumference.

The reason of oysters fished up from rocky bottoms being more productive of pearls than those taken from a sandy surface, may be this, that, the oyster is in its natural state when attached by its *beard* to any substance, and that as rock from the inequality of its surface, offers many projecting points to which the animal may attach itself, it naturally thrives and does better in this situation than on a sandy surface where it has nothing to fasten itself to, and consequently is in an unnatural situation.

When oysters accumulate to such a height as they are supposed to do at the Bank nearest the point of Kodremale, it is evident that such banks cannot be swept over by strong currents, or that the agitation of the water by the winds cannot reach the bottom. But the death of the undermost oysters may be accounted for from the superincumbent weight of the upper ones, as the pearl oyster cannot live or flourish unless it has free motion to the extent that the length of its beard will allow it.

With respect to the observation of the necessity of the supply of a certain quantity of fresh water for the production of pearls in the oysters, there is nothing in such a supposition contrary to reason or analogy. For it is well known that there are certain animals that absolutely require brackish water for their existence, such for instance as live in the mouths of rivers, or within the influence of an influx of fresh water into the salt. Mr. Jonville thinks that the pearl itself is the product of a disease in the oysters and causes ultimately the death of the animals. There is no direct proof that this is the case, while it is evident that the animal has the power of elaborating a substance which lines the whole internal surface of its shell, of the same nature and appearance as the pearl, and consequently that the production of the pearl itself is one of its natural and healthy functions. The cause fixed by nature of the death of oysters is not known, neither is the duration of their life known.

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### OBSERVATIONS ON MR. TURNOUR'S REPORT.

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Mr. Turnour states that the Banks of Manar are 14 in number, that they occupy a space of nearly 40 miles in length and 24 in breadth.

He also says that the oysters are sometimes found in heaps, and that the small and middling sized pearls are found in the thickest part of the flesh of the oysters near the hinge, and that the largest pearls are found in the beard.

The two preceding facts imply the necessity of ascertaining with accuracy the limits of the Banks and a scientific examination of the situation of the pearl in the animal.

Mr. Turnour further states that 150 pearls have been found in one oyster, while 150 oysters have been opened without finding a single pearl.



This is a very extraordinary circumstance and if true goes far to prove that the production of pearl does not depend on the age of the animal, as in such a number the pearls must be of different sizes, and consequently be produced at different periods of the life of the animal. It also proves beyond a doubt that the production of the pearl is an incidental circumstance—or at all events that the pearl is not a necessary component part of the animal.

Mr. Turnour's observations on the certainty of succeeding in a fishing every year, and on the amount of money to be realized from that source, is unfortunately not borne out by experience.

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#### OBSERVATIONS ON MR. WILLIAM BOYD'S REPORT.

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Mr. Boyd seems to have confined his examination almost entirely to the Bank called Chivil-paar.

It appears that the divers in their first attempt on this Bank brought up each time from 40 to 50 oysters all ripe, and that the depth of the water was  $5\frac{1}{2}$  fathoms. The divers also brought up what they called dead oysters without pearls in them, and also oysters of what they called three years old. Does not this clearly prove that ripe, (by which is understood oysters containing large pearls) and unripe, (by which is meant oysters containing small pearls) and dead oysters, may be all found on the same Banks?

Proof will be found in this report that live oysters are always found attached to one another or to something at the bottom of the sea, while dead oysters uniformly are found loose and not attached to any thing. Would not this lead to the supposition that the oyster cannot live or flourish unless when it is attached?

Mr. Boyd inclines strongly to the opinion that the oyster dies at the age of about 8 years. He is however far too confident as to the certainty of succeeding in fisheries, and his opinion as to the preservation of the growing oysters is questionable. It is more than probable that the pearl oyster is produced in such quantity as would supply an incalculable quantity of Pearls, were the animal not destroyed by physical causes, or were that function by which it generates pearl not disturbed by its being swept away by currents from its adhesion.

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#### OBSERVATIONS ON DR. WRIGHT'S REPORT.

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This report affords a better illustration of the natural history of the pearl oysters than any thing that has been written or published on the subject; it goes far to prove that the animal cannot live unless when it is attached by its beard to some fixed points in the water and consequently that when it is severed from its attachment ~~that~~ it must soon perish.

Dr. Wright says that the rock forming the surface of the Banks is white coral, and that the oysters are generally found adhering to it in clusters and often adhering to one another. Here is another cause of their being severed from their point of attachment, for the cluster naturally grows heavier by the accession of new oysters, the whole sometimes amounting to 80 in number.

It is very strange that Dr. Wright, while he has fully proved the necessity of the animal or cluster of animals being attached to some fixed and immoveable point, proposes transplanting the animals to places convenient for fishing them when they arrive at maturity, forgetting that the very adhesion which he deems necessary for their existence, would be destroyed by this measure. For surely as the animal has not the power of regaining its adhesion after it is once detached, it cannot when once broken away from its attachment, fix itself again, and must either perish or be carried away by <sup>the</sup> current, a single oyster or cluster will be placed

under precisely the same circumstances in as far as situation is concerned, for the cluster must obey the force of the current as well as the single oysters.

The Doctor carries his speculation beyond justifiable limits when he says that the Chilaw and Aripo Banks will afford 4 or 5 fisheries in the seven years following the period at which he examined them. The uncertainty of seasons favourable for fishing would of itself refute this operation.

The Doctor is aware of the difficulty of fixing the age of the oyster, but forms his judgment on that point from the size of the pearl—might not the size of the shell be also taken into consideration?

#### OBSERVATIONS ON MR. SUTHERLAND'S REPORT.

This report embraces three examinations of the Banks made between the years 1810 and 1813. It is very circumstantial and diffuse, but does not afford much information either as to the natural history of the oyster, or the mode of fishing for it. There is one fact very evident in these examinations, which is, that the most valuable oysters were uniformly found in water from 5 to 6 fathoms deep. This is as much as saying that this depth of water is the most favourable for diving.

These examinations were followed by a productive fishery in 1813.

#### OBSERVATIONS ON CAPTAIN LAUGHTON'S REPORT.

This report embraces an examination of the Banks of Chilaw and Manar, and lays down positions, a knowledge of which must be of great advantage in all attempts at a pearl fishery. It may be observed here, however, that two things are essentially necessary for success in a pearl fishery. One is, a limited depth of water—seldom exceeding 7 fathoms, and the next is the accurate fixing the extent of surface of water of this depth. Soundings are particularly necessary for fixing the limits available for fishing, or rather for diving, for it is quite certain that diving cannot be effectually applied unless in a depth of from 7 to 8 fathoms water.

It appears that in almost all the experiments made by the divers employed with Captain Laughton, ~~that~~ oysters of from three to four years old were obtained—now as the oyster becomes heavier by growth and age, it is more liable to be detached by currents or the agitation of the water, and to be carried away into depths beyond the reach of the divers, when it has acquired a certain size than when it is young and small. If it be stated in opposition to this, that the beard of the oyster, by which it is attached, increases in strength proportionately to the size and weight of the oyster, it does not follow from this that the oyster may not be detached, as this event generally takes place from the breaking of the stem or branch of coral to which the animal is attached. This cause of the disturbance of the animal cannot meet with too much consideration. It will be found in all likelihood, to account for many of the circumstances which appear so puzzling in the history of Pearl fishery.

#### OBSERVATIONS ON MR. BISSET'S REPORT.

This report is the result of an examination of the Aripo Banks made in October and November 1815, and ends with a declaration that no oysters were to be found at the time on

some of these Banks. Oysters were however found on other Banks and it was determined that they should be fished in the ensuing spring—Mr. Bisset proceeds in the spring to the spot on which oysters were found in the preceding November, but to his utter astonishment finds that the oysters have disappeared. His conjectures and reasoning on this perplexing and annoying circumstance are well worthy of perusal.

The Banks on which oysters were found in November and from which they had disappeared in the March following are called Ralaponkpaar and Periaparkary. There can be no doubt whatever but that this extraordinary change took place, and that within the space of three months.

This circumstance proves to a demonstration that the Banks, especially the two in question, are liable to some cause, which either covers up the oysters, sweeps them away, or otherwise conduces to their disappearance. Among these causes, currents are the most likely to produce this effect, and the mode of attachment of the oysters, viz. to slender pieces of Coral and the little depth of water over the Banks favor this supposition. It would be very desirable however to have a series of observations made on the two Banks in question, with the view of ascertaining the depth of water on which they lie, the nature of their surface, and the course of current over them. It is not at all improbable but that oysters, which are deemed ripe and fit for fishing, may not grow on the spot where they are found, but be carried thither by currents, and that what is usually called a pearl Bank fit to be fished, may be an accumulation of oysters of what are called seven years old brought by currents to spots, with a depth of water over them which is within the limits of diving. This point might be cleared up by ascertaining whether or not the ripe oysters, as the seven years old, are found adhering to rocks or coral when they are picked up by the divers.

The removal of oysters, or at all events their disappearance, from the Banks examined by Mr. Bisset, taken in conjunction with other circumstances, ought to lead to two measures. One is, to make a minute inspection of the Pearl Banks twice a year, the other is to fish up ripe or valuable oysters wherever or whenever they are found. This may interfere with the system of selling the Banks to adventurers, but it is the only way to derive any thing like a certain revenue from pearl fishery.

It would be very desirable to have a person possessing a knowledge of nautical affairs, and also of a turn for natural history, stationed at Manar for at least two years—a person thus qualified would fix the precise position of the Banks and the depth of water over them—he would ascertain the course of currents, the influence of the winds, and even the effect of an influx of fresh water or the want of it. He would also ascertain the habits of the pearl oysters and clear up many points in their natural history, an ignorance of which is the cause of much confusion and embarrassment in the endeavours made to fish them.

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R. M. Sneyd Esq.

Collector of Manaar.

Chief Secretary's Office

Colombo, June 1. 1822.

Sir,

I am directed by the Governor to acquaint you that he has resolved that the Collector of Manaar shall be charged with watching over the preservation of the oysters on the Pearl Banks, under the denomination of Supervisor of the Pearl Banks and with an additional salary for that duty of Three Hundred Pounds per annum, to be drawn in a separate Fixed Abstract from the 1st instant.

I am further to inform you that it is intended, as soon as the Brig "Wellington" returns here, to send her to Aripo to cruise on the Banks extending her movements as far as the Southern point of Caretivo, and it will be your duty to take care she does keep the sea, in all weather when it is not absolutely impossible for a good vessel to do so.

Your own presence on board on these cruizes will be at least once a month required, in order that Government may be certain that the Master of the Vessel understands and performs his duty.

In the months of March and October a regular Inspection is to take place of the Banks off Condatchy and those off Calpenteen and Chilaw, for which purpose you will be supplied on due application to the Commissioner of Revenue, with boats from Jaffna, and the Interpreter of the Fishery will be sent hence to perform his duty under you.

The inspection of March will of course be the most complete because the period in which examinations can be conducted is the longest, and the Master Attendant of Colombo will on these occasions be sent down to lay down, by nautical survey, the projections in which your inspection is made, and to which your joint report will allude.

But as much information is expected by intermediate visitations of the Banks whenever the weather allows divers to go down, as to the progressive state in which the oysters are, and with the view of discovering if possible the causes of the many disappointments to which Government has been subjected, in its expectation of profitable fisheries, you are to take every opportunity, with the means which your district so well affords, of having the Banks examined in your presence and reporting results in the fullest manner to the Commissioner of Revenue for the information of Government.

The weekly reports, which the Master of the "Wellington" will be instructed to furnish will be sent by you to the Commissioner of Revenue, they are expected to contain information as to the state of the weather and appearance of the water, as well as of the number of Dhonies or other Vessels which have passed in sight of the Brig.

As Collector of Manaar, it is of course your duty to see that the Chank Renter's Boats do not encroach on the limits of the Pearl Banks from which the conditions of the rent cautiously exclude them. This duty therefore as far as regards the Banks of Aripo, it is unnecessary to press on your attention as Supervisor, but in respect to the Pearl Banks off Caretivo, it may be proper to acquaint you that you are to watch and instruct the Master of the Brig to watch over the conduct of the chank divers in that neighbourhood and to bring to conviction any person transgressing the conditions in this respect.

You will be furnished with a copy of the most recent Chart of the Banks and of the reports of examination of the Banks since the fishery of 1814; by combining the facts stated in which, with future observations, it may be in your power to put Government in possession of much useful information from time to time; which you will do through the Commissioner of Revenue under whose more immediate orders you are in this, as in the other Revenue duties of your Cutcherry, to consider yourself.

I have the honor to be, Sir,

Your most obedient Servant.

(Signed) G. LUSIGNAN

*Dep. Secretary.*

To

Colombo, November 1832.

Henry Tufnell Esq.

Private Secretary to the Governor.

Dear Sir,

It appears to me on further reflection, that His Excellency the Governor and the Honorable Members of Council are under an impression, that the finding of Pearl Oyster beds forms a part of the duty of the Master Attendant as the Inspector of Banks.

As I have been in the constant habit of attending to this particular service in common with that which is strictly my duty, it did not occur to me previously to explain the distinction.

It is nevertheless of importance, that the strict line of the Inspector's duty should be clearly understood. He is to ascertain professionally the correct position of such Oyster beds, as the Supervisor may have discovered and examined, so as to insure the same beds being readily found again; and at the fisheries, to see, that the same beds of oysters are fished, from whence the samples exhibited at the sale were taken.

The Inspector's duty being thus confined to furnishing the Supervisor with the bearing and sounding on the Banks for the purpose of being inserted in the official diary kept by the latter, and as the professional education of the Inspector would lead him to consider further *official* interference subversive of proper subordination, you will perceive, that although I have given every information in my power in a private form, and which information has been productive of equal good, my official silence is thus accounted for.

I further consider that I should state, that the place expected to be fished next March is of all others off Aripoo, the most difficult for a stranger to determine, and the importance of this particular difficulty, swayed powerfully with me, and on reflection induced me to decline His Excellency's considerate indulgence of permission to proceed to England in the "Morning Star."

I am, Dear Sir,

Your's faithfully

(Signed) JAMES STEUART.

The Hon'ble

Colombo, 1st. December 1830.

Commissioner of Revenue

&c. &c. &c.

Sir,

We have hitherto found the oldest oysters on the Southern parts of Aripoo Banks; and we commenced the first fishery in 1828 at that extremity advancing to the Northward every year. The few oysters brought from the place where the samples were taken last March, would appear to confirm this general rule.

The whole of the Banks are now covered with myriads of young oysters a few month's old;—but these young oysters are larger on the Southern Banks, than on Northern. Those on the Modregam, where we commenced the recent Fisheries, being as large as a half crown piece, whilst those on the North of the Chival are the size of a six pence.

Many of the dead shells found on the Bank intended to be next fished, are quite bright, (an evident proof of recent death) which induces me to believe the old oysters are dying very fast. I estimated the dead shells at nearly one third of the whole taken up. If we suppose a net to contain one parrah, I consider there would be half a parrah of good oysters, and half a parrah of dead shells mixed with young oysters of the size of a six pence.

The cause of the mortality may be owing to the want of protection from the strength of the current during the S. W. Monsoon, as the ridge which appears to protect the Southern Banks does not extend sufficiently Northward.

The extent of the ground from South to North, on which oysters are lying, agreeable to the sample brought down, is  $2\frac{1}{4}$  miles instead of  $1\frac{1}{2}$  miles as stated in the supervisor's diary.

With due allowance for the havock of death, I have every hope of a fishery being completed to the extent reported by the Adapanars.

Note. The duties of both the Supervisor and the Master Attendant or the Inspector, are clearly defined in the preceding letter.

As the oldest oysters lie to the South-ward, near where the last fishery ceased, I would recommend that the fishing should commence at that extremity gradually advancing to the Northward, until the prescribed number of fishing days is completed, and then all fishing to cease for the season.

As quantities of young oysters, which are mixed with older ones, must be taken up by the boats, it will cause great dissatisfaction to the renters, and render them clamorous for remission or compensation for the young oysters brought on shore mixed with the old ones.

I earnestly beg leave to call your attention to the propriety of making the state of the Bank known to those persons disposed to offer tenders for the Rent, and I would recommend that the rent should be sold free from all claims for remission or compensation. For unless this is the case, I much fear you will feel bound to grant their requests at the close of the fishery; and there may be great difficulty in collecting the latter Instalments of the rent.

The principle pursued by me in ascertaining the exact position of the oyster beds, will not admit of so glaring an error, as that apprehended by the Head-men and the Supervisor, in fixing the spots where the samples are taken up; and after having taken pains on the 17th. November to point out to the Adapanar the distance we were from the buoys placed where the 5006 oysters had been taken up, and his saying he could not see the land distinctly from his boat, I did not expect to see such a contradictory statement upon record, as appears in the diary of that day. Although it is of no immediate consequence, I respectfully make these observations, and offer them as my reason for declining to affix my signature to the Diary, and for forwarding, in lieu, an Extract from my own private Journal, and also, that my successor in office, on reading the records of the fisheries may not consider the opinion of the Adapanars, as recorded by the Supervisor, to be founded on a competent knowledge of the subject, instead of the fact; which is, that the supervisor is not aware of the extent of the ignorance of these headmen.

The oysters on the Karativo Bank are in a healthy state, and if their valuation render them of sufficient importance, they should be guarded by a small Vessel, on account of the ease with which the Bank may be found and plundered.

I have the honor to be

Sir, Your most obedient Servant

JAMES STEUART.

*Inspector of Pearl Banks.*

#### TRANSLATION OF A LETTER DATED 3rd MARCH 1835.

Let God give happiness to my dearest friend Don Jermimo Marian Patcheco Adapanar Maniagar of Manaar, I Lazero de Mell Periapattangettymoor, humbly state that on the 25th February Captain Mr. Steuart and his Lady arrived at the Doric, some tents also brought; on the 27th we went to inspect the south part of the Chivilpaar in  $6\frac{1}{4}$  and  $6\frac{3}{4}$  fathoms found a Bed of old oysters, which place we buoyed up on the 28th—but when we went to report, the (Inspector) Gentleman ordered us that he has already placed a buoy on the place which we have reported to be fished, and the same place is to be inspected to-morrow, accordingly we went and placed buoys on it and found it to be the very same place—if the gentleman did not place his buoy on it, it will be difficult to me and will take 2 days to find out the place for I had no bearings kept for it. Please let me know about your health.

(Signed) LAZERO DE MELL.

A true Translation (Signed) D. J. M. PATCHECO.

NOTE.—This letter is from the second headman, and addressed to the principal Adapanar, who was sick and absent. It is curious, inasmuch as it admits a mistake made by the Adapanars, in fixing on a wrong bed of oysters at least 2 mile South from the place whence the samples were taken in November and now intended to be fished.

To

P. Anstruther Esq.

Deputy Secretary to Government

&amp;c. &amp;c. &amp;c.

*Master Attendant's Office**Colombo 1st. October 1832.*

Sir,

In obedience to your letter of the 29th of September, calling my attention to the report relative to the Pearl fishery contained in the 44th and 45th pages of the Report of the Commissioners of Inquiry (which the Governor has reason to believe to be inaccurate on many points, as the Commissioners were not present at the Pearl fisheries, except Mr. Riddle who is not apparently a party to the report,) and as His Excellency can only suppose that this information was derived from me, on being examined with respect to my office as Inspector of the Pearl Banks, and is desirous of referring to the information with which I have supplied them—, I have the honor to request His Excellency will accept my positive assurance, that I was never personally examined by the Commissioners of Inquiry with respect to my office as Inspector of the Pearl Banks, and further that I was never called on for any information in writing on the subject, but, naturally expecting to be examined on this important part of my duty, I prepared sundry Memoranda in readiness to submit to the Commissioners of Inquiry—some of which were drawn up soon after the Pearl fishery of 1829, and framed to the best of my ability, to induce the Commissioners to institute further inquiry, rather than that my information should be received as correct. I have the honor to transmit a copy of these Memoranda (marked A.) by which his Excellency may infer, that had they been called for by the Commissioners of Inquiry, they would have led to more correct information on the Pearl fisheries.

Colonel Colebrooke has read a descriptive narrative, the result of my visit to the Pearl fisheries, which I drew up for the Ceylon Literary Society, and which appeared in the Colombo Newspaper some months since: having no copy at hand, I am unable to transmit one, but I believe I may safely trust to my memory, that there is no matter in that paper calculated to mislead any one.

Since having been honored with your letter of the 29th ultimo, I have read the Commissioners' Report on the Pearl fishery with the greatest attention, and have made a few remarks on the same, which I have the honor to transmit in Notes appended to an Extract from the Report.

On mature consideration I am induced to hope, that I may have been premature in arriving at the conclusion in Memorandum B, and that it may not be contemplated that I should be subordinate to the proposed Resident Superintendent, or that the Commissioners intended to reflect any censure upon me. If I am correct in this view of their report, I can have no objection to assist (as far as I am able) any officer who may be appointed to superintend the Pearl Banks.

I have &amp;c.

(Signed) JAMES STEUART  
Master Attendant of Colombo  
and Inspector of Pearl Banks.

## A

## MEMORANDUM WRITTEN AFTER THE PEARL FISHERY IN 1829

The necessity of having an active officer of sufficient nautical experience, to attend at the inspection of the Pearl Banks, is generally admitted by those, who have visited the Pearl Banks of Ceylon.

Many of these Banks lie at a considerable distance from the shore, and as the Land seen from them does not possess very distinct marks, it is next to impossible to fix the small spots where the oysters are found, with sufficient accuracy by compass bearings, so as to find them six months afterwards; and as buoys or beacons would mark the spots too plainly, and endanger the oysters being plundered, it is requisite, that the appearances of the land should be sketched, and the various alterations in those appearances should be carefully observed and noted, and not left to memory.

When I first came into Office, many old residents mentioned to me the importance of the Pearl Banks as a source of great probable revenue, and urged the necessity of my giving them particular attention: some of these persons said, that they had no doubt I should find great assistance from the Manaar and Jaffna Adapanaars or Headmen of the Fisher Caste; but to my no small disappointment, I found these men mere Interpreters of the reports given by the divers; and although they were possessed of old directions and courses to steer from the Doric to certain Banks where oysters are found, and incorrect compass bearings taken on the Banks for ages, they were quite incapable of fixing with any certainty on a particular oyster bed, and frequently returned to shore unable to find the one required. I soon discovered that instead of these Headmen being experienced fishermen like our intelligent Fishers at home, they did not even know how to direct the management of their Boats, and were in fact as before mentioned, merely the channel of communication between the divers and Government.

With this conviction on my mind, I set to work to make myself acquainted with the spots where oysters were found; and by questioning the Officers of the Government Vessels, I found their opinion respecting the failure of finding the oyster beds to coincide with my own. The attention this duty requires renders it necessary for me as Inspector of the Pearl Banks, to be absent from Colombo during most of the months of October and November; and part of February, all March, and part of April when a fishery takes place.

The Collector of Manaar is Supervisor of the Pearl Banks: this Officer also occasionally visits the Banks at the Inspections to receive the Adapanaar's reports, and he is unquestionably the Senior Officer of the Establishment.

It is the duty of the Supervisor to erect the temporary buildings for the fishery, when one is to take place, but this, I conceive, might be done by him as Collector of the District. In fact, I know of no necessary duty done by the Supervisor of the Pearl Banks, that he would not have to do as Collector of a District where any public work is about to take place,—for the sale of the Fishery is managed by the Head of the Revenue Department under the authority of Government.

The management of the Fishery is more important than is generally at first supposed, in consequence of the character of the natives, who are usually the purchasers; it requires a knowledge of the cunning plans of these speculators, with tact and firmness to protect the interest of Government.

The Head of the Revenue Department or some other experienced Officer should always be selected by Government to effect the sales, receive the money, and assume the general command and management during the fishery. The Master Attendant or Inspector of the Banks, should buoy the spots to be fished, and superintend the fishing of the Banks; he should also see that the fishing Boats are properly manned and equipped before they are engaged for service.

The Interpreter to the Officer in charge, the Cash keeper, and Police Peons should be Natives and Servants of the Ceylon Government.

The Collector or Magistrate of the District should have the sole charge of the Police on shore, and the arrangement for allotting out ground for temporary dwellings, bazaars, and cottos. And at the Inspections of the Pearl Banks, the Collector should furnish boats and every assistance his district affords.

The principal Civil Officer having the management of the Fishery, should have an allowance per day, equal to his extra expenses during his absence from Colombo, and also a small allowance should be made to the Master Attendant for the same purpose.



The Military Commandant should have the usual allowance to Commandants of Garrisons.

The Collector should also have a daily allowance during the Fishery, to commence on the arrival of the Troops, and cease on their leaving the fishery.

The Interpreter, Cashkeeper, all extra Clerks and Peons, should be paid extra for the time they are absent from their families: also the Adapanaars or Head fishers, should be paid extra for the time they are actually employed.

All expenses, on account of the Fishery, should be paid by the principal Civil Officer in charge, under the authority of Government. The casual expenses of Inspections, may be paid as they now are, by the Collector in whose district the inspection takes place, and by the Inspector of the Banks, forming unfixed contingent charges in the disbursements of their respective departments. The pearl fishery being an uncertain source of Revenue, by adopting this mode of expenditure a fixed allowance would be avoided.

I cannot help stating my anxiety to have some means adopted to check the extortion and tyranny exercised over the poorer people by the rich Natives, Native Officers and Peons employed at the Pearl fisheries. The difficulty the poor Natives have to encounter before they can obtain redress, renders their endeavours so hopeless, that they rarely attempt to seek it, and quietly submit to such acts of oppression as the European Officers would imagine to be quite impossible. To remedy this evil, no servant of Government should be allowed to speculate in the fishery, or be connected with other speculators under pain of dismissal from the service, or such other punishment as Government may think proper to inflict.

At the last fishery upwards of 400 boats assembled at Condatchy, 200 of which were employed; instead of the first 200, which arrived at Aripo properly equipped, being licensed to fish, those were licensed which paid the most money to the Native Officers who performed this duty; and while seven pagodas was the lowest sum paid, in some cases as much as 120 Rupees were extorted from the poor fishermen.

It may be proper to remark that the first of these complaints reached my ears when the Cholera Morbus had made its appearance, and seeing plainly how very much we were in the power of the rich natives, I thought I was consulting the interest of Government, to keep my counsel until after the fishery had closed; but the chief complaint I did not hear until my return to Colombo.

If the boats were examined by the Master Attendant's Department as they arrived, and the licenses issued to those found efficient; much of these evils would be remedied: and if the Collector of the District had the sole direction of the Police, the allotting of ground for temporary dwellings, bazaars and Cottoos, and personally visited them once during the fishery, and willingly attended to receive petitions, the system of bribery would be checked. By forbidding all servants of Government to speculate in the fishery, the Native Officers would not find it so much to their interest to smother the complaints of the oppressed.

I would strongly recommend, that the Cottoos should be more extensive and walled round with high walls, and no dwelling or hut of any kind (except the sheds within the Cottoos) should be within 200 or 250 yards of them. The only entrance to them should be towards the sea. This walled space to be sub-divided with sticks in the usual way and let off to the purchasers of Boats. I would also recommend a number of lamps to be fixed round the outside of the walls of the Cottoos to enable the sentries to see each other.

I would recommend, that a substantial small building should be built as an Office for the management of the fishery, in which there should be one particularly strong room for the deposit of Treasure belonging to individuals, in their own boxes, under their own keys and at their own risk. Government should not be accountable for the boxes or their contents thus deposited, but the key of this strong room should be kept by the Government Superintendent. The Depositors should have access to the room for a certain number of hours in each day.

The walled Cottoos and the strong room for the treasure, should be the only places where sentries should be posted, this would make property more secure and the duty much easier for the soldiers.

Persons choosing to build Cottoos at distant places, should not be led to expect any further protection than the regular fishery Police could afford them.

We have lately had two fisheries. In 1828, the oysters were sold by the 1000. In 1829, the privilege of fishing with 200 boats for 15 days, was rented to two Natives.

There is another plan which deserves attention, which is to put up the boats for sale in small lots; say 5 in each lot for a given number of days. Suppose 5 boats numbered from 1 to 5 were to be put up for sale to the highest bidder, and that the highest bidder in this case did not require so many as 5 boats, but that 3 were sufficient for his purpose; then if Nos. 1, 2 and 3 were given to him, the next five numbers, from 4 to 8, would form the next lot to be offered for sale, and so in succession. By such measures Government would benefit by these sales generally, instead of the Renter, who being a middleman, occasions a vast deal of inconvenience.

There are certain privilege oysters allowed to the Officers of the fishery by order of Government, which are taken from the fishermen's one fourth share of oysters, after the Government have taken their three fourth share.

This deduction from the fishermen being authorized by Government, is too frequently made a pretext by even Peons, under the badge of Office, for taking as much as they can collect from the unfortunate fishers. This evil practice may be discontinued, when an allowance is made to the Officers of the Fishery, as before mentioned.

There are many advocates for these privileges, and I am aware from the knowledge, and, I may say, experience which I have of fisheries in general, from the whale of the Southern sea to the Cod, Mackerel and Herring of the Northern, that the best way to insure success in fisheries, is for every one engaged in them to have a share. But these advocates forget, that the Officers of the Pearl fishery are not acting for themselves as individuals, but as the representatives of the Government, the principal sharer in the fishery; and therefore our pearl-fishery, like the whale fishery, is conducted on shares; the Government receiving  $\frac{3}{4}$  and the fishers  $\frac{1}{4}$ . If however in the wisdom of Government privileges should be adhered to, I then submit that it would be much better to give the Commandant the privilege of having one boat to fish for himself and his officers, another to the Master Attendant and his officers, another to the Native Head fishers or Adapanaars, and another to the clerks &c. of the Cutcherry, by which means these privileges would come out of the sea where they could not be missed, and not interfere with the fisherman's share.

### B

#### MEMORANDA ON READING THE COMMISSIONER'S REPORT.

*September 21st 1832.*

The recommendation of His Majesty's Commissioners of Inquiry, that a Naval Officer should be *stationed at Aripo* to superintend the Pearl Banks, would appear to be founded on superficial knowledge of the subject. And as it may, at some future time, be thought to convey censure on the Inspector, I am induced to offer some explanation in order to avoid apparent blame attaching to me. With this view I venture to make a few general observations on that part of the Report of the Commissioners, which relates to the Pearl fishery.

The idea of a resident superintending Officer at Aripo is by no means a new one; it was originally recommended by Colonel Hamilton, and it led to the appointment of the Collector of Manaar as resident Supervisor in 1822. I remember when the appointment of Superintendent of Pearl Fisheries was about to be abolished in 1822. I had the honor of being thought of by the distinguished individual,\* who then administered the Government of this Island, as a fit person to be made Resident at Aripo, in the manner it is now proposed by the

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NOTE.—Since 1835, no oysters have been taken from the Fishermen for the Officers of Government.

\* Sir Edward Paget.

Commissioner of Inquiry; but being at that time on my way from Bengal to England in command of the Ship "Eclipse" with passengers intrusted to my care, I did not feel myself at liberty to remain in Ceylon, and so the Collector of Manaar was appointed resident Supervisor. To the circumstances attending the communication I had with Sir Edward Paget in 1822, in reference to my employment under this Government, my present situation may, in a great measure, be attributed.

After more than seven years experience as Inspector of Pearl Banks. I pledge myself, that it is an error to suppose so little is known of them as to render a permanent Resident at Aripo necessary. And if the diaries of the many resident Supervisors have led to the conclusion drawn by the Commissioner, it is quite evident, that very little good has been effected by the last change which took place in the Pearl fishery establishment.

The idea entertained by the Commissioners, of a Colony of divers settling at Aripo is altogether, theoretical, but let it be supposed that they did settle, and (as proposed by the Commissioner) when not required on the Pearl Banks, (about 8 months in the year) they were employed in making and repairing Tanks, and following Agricultural pursuits; it would certainly follow, that want of practice in diving would render them unfit for the service when required, and that it would be soon found expedient to send to other places for divers, who follow their avocation the whole year round. It is clear that the Resident would find no use for his divers and boats on the Pearl Banks two thirds of the year, and his Establishment of Boats would be of less service lying on the beach during many months, than his divers would be in cultivating the soil.

It is well known that pearl fisheries have been held in many other parts of Ceylon, although more generally at Aripo than elsewhere; and I am of opinion that fisheries may be obtained in other places; but would a fixed resident at Aripo be a likely person to make these discoveries, or his boats and divers be always available at other places? Constant fisheries would no doubt be desirable, but it is a mistake to suppose that a fixed Resident would insure them, or that there are not difficulties in the way, of which the Commissioners appear to be quite ignorant—for instance, the Temples which claim the privilege of fishing with 10 boats at every fishery on the Aripo banks. Now 10 boats when the fishery consists of 200 boats is only 5 per cent on the fishery; but 10 boats when 50 or a less number are fishing, amount to 20 per cent and upwards.

Every thinking person who has visited a pearl fishery, is sensible, that the present fixed establishment is defective, but the remedy requires no increased fixed expense.

I much regret I did not volunteer all the information in my power to the Commissioners of Inquiry, when they were here, but fearing it might be received with an ill-grace from a subordinate officer, I was induced to refrain, in the hope of being called on for my opinion. From whence the Commissioners derived some of their information on this subject, I am at a loss to conjecture, particularly when I consider their mistake "that fishing boats are pressed," when at the very fishery alluded to (that of 1829) so extremely anxious were the Tindals to have their boats employed, that fees of 120 Rupees were offered for the purpose\*. And at this same fishery (notwithstanding that the Cholera Morbus hastened its close before the rent had expired) the Renters were considerable gainers, instead of having sustained a loss as supposed by the Commissioners.

I would recommend that the office of Supervisor of Pearl fisheries should be abolished; and the Collectors of Districts encouraged by a Commission on the revenue derived from the fisheries to collect information from fishermen, divers and others, where oysters may be found†. Such good information should be forwarded through the proper office to the Inspector of Banks, who (when the season admitted) should inspect and report on the same. The fishery might be sold in Colombo, or on the spot, as circumstances might direct, and the

\* See Boatman's petition page 10 in their respective districts

† In those days, the Collectors of Revenue were allowed 2 per cent on the amount collected, except on Cinnamon and pearls.

Collector of the District should conduct the affairs of it, under the direction of Government ; the fishing of the Banks being conducted as it now is, by the Inspector afloat.

The Government vessel, and the Colombo Boats, and means, should be sufficient for the purposes of inspections, with the Collector's assistance in furnishing divers and such native boats as might be found necessary. But for the better retaining of the information derived by the experience of an Inspector, which is not easily defined on paper, and to secure its being available in his absence or illness, I would recommend that a young sea-officer as an assistant, should, *in the first instance, be temporarily appointed*, to ensure an efficient officer being obtained before one is confirmed. An intelligent young Seaman possessing a moderate acquaintance with Mathematics and sketching, would very soon acquire sufficient knowledge to conduct inspections. Now this is really all the alteration required in the pearl fishing Establishment, to ensure no loss of pearl fisheries, and the Government better information (judging from the Commissioner's report) than they now appear to possess on record.

I confess I am not so fond of pearl fisheries as to desire means may not be adopted, that may render my attendance unnecessary ; but there are points pending the proposed appointment, which appear of the first consequence to me. Accustomed to the non-interference of the Supervisor where I am employed, it would now be extremely irksome to be second to any one of my own profession in this duty, and as I cannot afford to lose any portion of my income, (which is not altogether more than I was in the habit of making by my profession for years before I took office) I should be unable to rid myself of such unpleasant control.

It is a matter of surprize, that the Commissioners of Inquiry should have left this Island so ignorant of the abuses which take place at pearl-fisheries, and I can only attribute it to the circumstance, that the sufferers from these abuses are chiefly of the very lowest description of Natives and Inhabitants of the Indian Coast.

*Extract from the Report of Lieutenant Colonel Colebrooke, one of His Majesty's Commissioners of Inquiry, upon the Administration of the Government of Ceylon ; dated 24th December 1831.*

#### PEARL FISHERY.

The pearl fishery is a branch of revenue of too precarious a nature to be comprehended at present in any regular estimate of the annual supplies. The pearl banks, which are situated in the Gulph of Manaar, are superintended by the Collector of the District as "Supervisor," and by the Master Attendant of Colombo as "Inspector," who proceeds to examine the Banks when the south-west monsoon has abated. After an examination has been made of the oysters taken up from certain banks, it is decided whether a fishery shall take place in the ensuing months of February and March, before the commencement of the south-west monsoon. The growth of the pearl has not admitted of the banks being fished in consecutive years. The oysters have sometimes failed after inspection, the shells being found open (as in 1815), or they have suddenly disappeared from the Banks. Between the years 1820 and 1827 the fisheries were suspended. As they have since been carried on with less interruption, it is probable that an interval may soon recur in which no revenue from this source will be derived.

The average amount of revenue from the pearl-fishery, calculated on the occasional receipts during the last 32 years, is £14,662 per annum.

There are two small vessels in the Government service, one or other of which is stationed for the protection of the banks during the north-east monsoon when the weather is calm, and is also employed during the fishery. The boats of the speculators are allowed to fish on the appointed banks for a certain number of days, according to the terms of the contract.

Although from the experience of the present Master Attendant of Colombo as Inspector of the banks, his occasional assistance might still be useful, the present arrangement does not provide for that constant attention to the condition of the Banks which would make the pro-

gress of the changes which gradually take place. I would recommend that an active and intelligent naval officer should be appointed to the sole duty of superintending the banks, and who should reside permanently at Aripo. A small establishment of boats and divers should be placed at his disposal, for the protection and examination of the banks; and by constant examination of the pearls, he would acquire that experience and information, which would enable the Government to derive the utmost advantage from the fishery, with the least expense.

From the perusal of the reports of the several inspectors during the last thirty years, it is apparent that the occasional inspection of the Banks, although intelligently and zealously conducted, has alone been insufficient to secure these objects, and the adoption of the proposed arrangements may lead to a beneficial change in the management of the pearl fishery.\*

The pearl fishery has at former periods been a source of great prosperity to the district of Manaar, which is now deserted and impoverished. It still attracts a large assemblage of speculators from the Coast of India, and of labouring people who come over in search of employment.

From the fishery of 1829 the Government realized a profit of £39,000; but the speculators to whom it was sold, were considered to have sustained loss. It is thus a hazardous and precarious source of gain to the persons engaged in the fishery; and the benefit arising to the inhabitants of the district from the market afforded for their produce, is more than counterbalanced by the inconvenience to which they are subject. When a fishery is announced many of them are induced to remove with their families from the district to escape from the public services they are required to perform, and from the depredations committed on their property by Malabar people from the Continent.†

The pearl fishery is either carried on by the Government with its own establishment of boats, or by the sale to speculators of the privilege of fishing particular banks for a certain number of days. In either case, the inhabitants of the district are pressed with their cattle, to collect materials, and to construct temporary buildings for the accommodation of the Officers of Government and the Troops, and enclosures or Kraals to contain the oysters, when they are discharged from the boats. As they are detached from their trades or field labours in the season for the cultivation of the lands, the service is very unpopular; and instances have occurred where they have offered to pay the Headman to procure their exemption.‡

The Boats of the fishermen are also in requisition from this and the neighbouring districts. The divers generally come over from the continent of India; though some reside in Ceylon.

Minute of Government dated 16th November 1825. By the Schedule of rates fixed by Government in the year 1825, the established wages for labourers employed by Government in the district of Manaar is 3d per day.

Under the superintendence of a resident Officer, the pearl banks might become a constant, rather than an occasional, source of revenue. When the oysters on a bank are found to be mature, a fishery might be carried on without delay, if the season be favorable, by which means the loss of the pearls might sometimes be avoided. The renewal of small fisheries at

\* Notwithstanding the Commissioner conceives "it is possible an interval may soon recur, in which no revenue from this source will be derived;" he recommends a permanent establishment at Aripo! If he had fortunately extended his enquiries somewhat further, he would have found that much more is practically known than can be defined upon paper, and that the above expense is not necessary.

† One of the Partners in the Rented fishery of 1829 is now in Colombo, and will not dare to deny that he gained money by that speculation.

In a comparatively deserted and impoverished district any public work must be beneficial to the few remaining inhabitants, if they are properly remunerated for their labor and for the limited supplies they have it in their power to dispose of. If the rate of wages does not remunerate them for their labor, they will be unwilling to work; but the simple remedy for this, is to give them a rate of pay that will not only induce them, but others to come to the district to work. All forced labor being now abolished, these evils of the system may be considered at an end. But notwithstanding, while the evil existed, it appears that large assemblages of labouring people voluntarily came from the coast of Hindostan for employment; for there was no great temptation for such people to plunder.

‡ The Government have not the means of their own for carrying on a pearl fishery: they are obliged to hire boats even for the inspection of the banks.

intervals might render fewer preparations necessary, and make the speculation available to the inhabitants of Ceylon, who have latterly shewn a disposition to engage in it.\*

All labourers required should be voluntarily hired in other districts, if not procurable at Manaar, and the boats of the fishermen should not be pressed.†

The constant residence of the Superintendent at Aripo, where there is a good house belonging to Government, which might be appropriated to his use, might enable him to promote the settlement in the district, of many of the people who come over from the Continent during the pearl fisheries, and who, if lands were granted to them, might employ capital in repairing the ruined tanks. The inland navigation to Colombo would open a steady market for the surplus produce of the district, to which the recurrence of the pearl fishery would give a further stimulus. Besides the pearl fishery, other profitable branches of industry would be open to the inhabitants. The collection of choya root or madder, a production of the district, yielding a scarlet dye in much demand among the cloth manufacturers, was till lately monopolized by the Government, but is now made an open trade, the revenue of it having declined from £ 2000 to £ 200 per annum.‡

The Government still retains its monopoly of the sea-shells called "chanks," which are used as ornaments by the Hindus. The chank fishery, which in 1816 produced a revenue of £ 6,700, has declined to £ 37 per annum. As the divers from the coast can easily collect the chanks, and as they are also procured by digging for them in the Jaffna district, it has been difficult to protect the monopoly; and it would tend to promote the settlement on the coast of useful and industrious people, if this restriction were removed. The chank fishers are also accustomed to dive for the pearl oysters.

To

James Steuart Esq.

Master Attendant

Colombo.

*Colonial Secretary's Office, Colombo, 3rd October 1835.*

Sir,

Mr. Quintom being about to assume his duties as Supervisor of the Pearl Banks, I am directed to request that you will hand over to him all the documents connected with the Pearl Banks, as well as copies of all surveys in your possession, and you will give him every information in your power upon the subject of his duties.

It will be necessary for you to accompany Mr. Quintom to Aripo for the approaching inspection, which it is desirable to commence as early as possible.

The "Wellington" will be placed under Mr. Quintom's orders whenever her services are required on the Pearl Banks, and it will be necessary to furnish him, from your department,

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\* When oysters are found on the Banks of mature age, a fishery may be carried on as well with the present means, as by a permanent Establishment at Aripo. But it is certainly worth while to consider how far smaller fisheries may be practicable; and therefore some arrangement is necessary to get rid of the ten temple boats, which claim the privilege of fishing at every fishery on the Aripo banks, whether it be of large extent or small.

† The Commissioner cannot now allude to Boats employed to fish for pearl oysters, for such boat people are too anxious to be employed. But he has heard of boats being pressed to convey sticks and cadjans from Manaar to Salawatorre for the temporary buildings, preparatory for the fishery. An increased rate of boat hire will silence complaint on this head.

‡ This is an unusual compliment paid to Naval Officers, who are too frequently considered useless persons on shore, but our Commissioner expects a Naval Officer to effect, with fishermen and divers, that improvement in the productions of the country, which has not been effected by a Collector having official influence over the Native Headmen, land-owners and peasantry.

with an efficient establishment of boats for the use of his department. You will be good enough to communicate with Mr. Quintom on this subject and report to me as soon as possible.

I have the honor to be, Sir,

Your most obedient Servant

(Signed) P. ANSTRUTHER

Col. Secy.

James Steuart Esq.

Master Attendant of

Colombo.

No. 52.

Colonial Secretary's Office Colombo, 30th September 1840.

Sir,

I am directed by the Right Hon'ble the Governor to transmit the enclosed copies of letters addressed to the Government Agent for the Northern Province and the Commander of the "Seaforth," and to acquaint you that His Excellency has been pleased to associate you with the latter Officer in conducting an inspection of the Pearl Banks which is to take place next month.

The Governor feels assured that you will zealously cooperate in this service with the Inspector of the Pearl Banks, and afford Government the benefit of your long experience in that Department.

The Inspector has been instructed to afford you a perusal of his Journal and report, on which His Excellency will look for your observations, in addition to any report you may make yourself.

I have the honor to be, Sir,

Your most obedient Servant.

(Signed) GEORGE TURNOUR

Act. Col. Sec.

*An Account of the Pearl Fishery in the Gulf of Persia, by Lieutenant H. H. Whitelock, I. N.*

The *pearl fishery* commences in June, and is continued until the equinox in September. During this period the water is very warm, and seldom disturbed for any length of time by the wind. The weather is excessively hot, and rendered truly oppressive by the dense state of the atmosphere.

The pearl bank extends from Sharjah to Biddulph's island, a distance, in a straight line, of about 330 miles: the bottom is sand and loose coral, and the depth of water is from five to eighteen fathoms, but very irregular.

The number of boats that are employed in the fishery throughout is said to be 3000, which are principally fitted out from Bahrein and its dependencies, from the towns on the Pirate Coast, and from Lingar and Assalow on the Persian side, as the right of fishing is free to all in the Persian Gulf. The boats are mostly small, with a crew of about seven men. However, there are many Vessels that are about 50 tons, and have a crew of fourteen or twenty men.

The boats, that are sent to the fishery from the Pirate coast, are generally found in fleets, averaging from seven to twenty, employed about the islands formerly called Maude's Group, which is the widest part of the pearl bank: they seldom or never proceed higher than

the Island of Hallool. It is their custom to remain at sea until the boats are laden with oysters, and then to proceed to a convenient island to open the shells; and from the large heaps which I observed on Sir Beni Yas, Zurkoh, Surdy, and Seer Abonnaid, I conclude that these are found to be the most convenient islands for this purpose.

Above Hallool, and as high as Katif, the pearl bank at this season is literally covered with small fishing boats from Bahrein and its dependencies; and, not possessing here so many convenient places for opening their oysters, they are obliged to be continually running in and out of the port of Bahrein, but this is not of much consequence, as the best fishing ground is found in the vicinity of their own Coast.

When fishing, the Vessels anchor on the bank in various depths of water, from five to sixteen fathoms; and the crew commence the work by dividing themselves into two parties, as they are nearly all equal to the business of diving, which is described by the Arabs as the most fatiguing work. One party remains in the boat to receive the oysters, and to haul up the divers; the others strip naked and place their feet upon a stone weight, which is attached to the end of a line made fast at the other end to the boat: retaining hold of this with their hands, and being provided with a basket or net to put the oysters in, they are lowered down to the bottom by those on board; after filling the basket, which will contain seven or eight oysters,\* they jerk the line as a signal to the men on board to haul them up again, which is done as quickly as possible.

When diving they make use of a piece of horn to close the nostrils, to enable them to breathe longer, which likewise prevents the water getting up the nose; this is about the size and form of a common wine bottle cork, with a notch at one end cut in the centre, so as to fit remarkably well: they continue down about 40 seconds in ordinary depths of water. I never saw one of them remain above a minute. On rising to the surface, they cling to the boat for rest, for the space of about three minutes, before they dive again. In this way they continue at work by relieving each other, until their boat is filled with oysters.

When the fleet is laden, they direct their course to some neighbouring island, and secure their boats under its lee; the oysters are then landed from the boats, and the sails, oars, and yards are formed into tents, to protect fishermen from the insufferable heat of the day, and glare of the sand. We frequently visited their little encampments, and on some occasions bought a quantity of unopened oysters to try our luck, which they parted with at the rate of two dollars a hundred without much hesitation. I am inclined to think this is a fair valuation, as the result generally left it doubtful whether we had the best of the bargain; for from this quantity we usually obtained two or three small pearls worth about a dollar each, and I have known them to offer the money back again for them.

For opening the pearl oysters they use a common clasp-knife, and are very quick and expert: the pearl is found adhering to the cartilage, or hard part of the oyster which is attached to the shell.

During the fishing season the boatmen live on dates and fish: the latter are every where abundant and good. It is really an act of charity to add a little rice to their repast, for which they are always very thankful, and in return will give you every information they can, about the fishery.

On one of these occasions, I questioned them regarding the danger they incurred from sharks when diving, as they are exceedingly numerous. They said it was not uncommon to meet with accidents from them, but described the risk as nothing when compared to the danger they encountered from the Saw fish.† Many of the divers said they had seen people cut absolutely in two by these fearful monsters.

The Arabs describe the diving as very injurious to their health, and this usually shows its effects in their appearance. They are very much reduced, and suffer likewise from inflamed

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\* At the Munassar pearl fisheries, 50 or 60 oysters are sometimes collected into one basket or net.

† *Pristis Lath.*



eyes : for which disease they apply antimony as a remedy. I shall here observe, that the use of antimony applied to the eyelids is general, amongst both sexes, as they are always found provided with a small tin box, which is frequently inlaid with gilt and full of this powder. In using it, they smear the end of a smooth rounded piece of mother of pearl, and apply it to the inner part of the eyelid.

The islands afford perfect shelter to their boats during the strong north-west winds, which occasionally come on even at this season ; but unfortunately they are mostly destitute of fresh water. At Sir Beni-Yas there is a beautiful Lagoon with five fathoms water, situated on the South side of the Island ; the entrance into it is narrow, with only three fathoms water, but quite safe. It is much resorted to by the pearl fishermen, as the surface is always perfectly smooth, being entirely landlocked.

On the island of Surdy there are some wells of fresh water ; and it is to be regretted that there is not good anchorage. A ledge of coral rock extends about two cables' length from the island, with eighteen fathoms within a quarter of a mile of the shore, shoaling rapidly towards the beach : upon the margin of this vessels anchor, but it is too close in to be safe. The remains of a town are found here, and one or two buildings stand entire at the present day. It is much frequented by the Arabs, who dry their fish there in very large quantities.

The mineral specimens that I can call to memory as common to the islands are Trap, Volcanic Rock, Gypsum, Granite, Sandstone, Antimony, and Iron Ore.

The appearance of these islands viewed from a distance is highly interesting, owing to the very curious form of the hills and the variegated color which they present. A scientific account of them would, I dare say, afford much new information ; but I have merely alluded to them, with a view to convey a general idea of the islands.

The value in money of the pearls that are obtained throughout the Gulf during one season, is calculated at forty lacs of rupees.

During the <i>fishery</i> , Bahrein and its dependencies employ.....	2430 boats
Sharjah, Ras-el, Kheimah, ditto .....	350.
Abothubee and other towns of the Pirate Coast, about.....	350.
Towns on the Persian Coast, about.....	100.

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Total number of boats employed 3230.

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The smallest boats employ five men, and the largest about eighteen. The former are the most numerous ; therefore I think if the average number of men be estimated at nine to each boat, the result will give a very near approach to the correct number employed in the fishery.

Total number of boats employed .....	3230.
Average number of men in each boat .....	9.

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Total number of men employed ..... 29,070.

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Each boat pays a tax according to its size and the number of men, from one to two dollars to the Sheik of the place they belong to.

The crew are never hired for fixed wages, but have certain shares of the produce, regulated according to the expense and risk they incur in the outfit of the boat, or their expertness in the fishery as divers.

The Hindoo Merchants purchase up a great part of the pearls, and export them to India. It is supposed that three fourths of the produce <sup>are</sup> thus disposed of: the remainder is sent into Persia, Arabia and Turkey.

The Arabs in the Gulf consist of so many different tribes, and being generally actuated by feelings of animosity towards each other, from the recollection of former feuds, it is not to be expected that peace and order can be maintained amongst them during the fishery, as various parties are huddled together frequently on the same island, which they resort to for shelter, or

for the convenience of opening their oysters. Plunder and strife is therefore not uncommon, and it requires much vigilance on our part to suppress it, and to do this effectually, it is absolutely necessary to have two Vessels on the pearl bank for the purpose.

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### BOATMAN'S PETITION.

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Copy of a Petition from the Tindal of a fishing Dhony belonging to Tuticoreen, whose boat had been dismissed after the 7 days' fishing, instead of being allowed to fish during the term of the Rent, the time for which he had paid 120 Rupees as a bribe to the Native Officers employed to select the boats for the fishery in March 1829.

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"To

"James Steuart Esq.

"Inspector of Pearl Banks.

"The Petition of Tandle Swany of the diving boat

"No. 174 now cancelled."

"Humbly Sheweth,

"That your Honor's Petitioner fished the following number of Oysters,

1st. Day .....	25,000.
2d. do. ....	23,000.
3d. do. ....	55,000.
4th. do. ....	10,500.
5th. do. ....	19,100.
6th. do. ....	20,500.
7th. do. ....	25,200.

"He paid 120 Rupees for numbering his boat, which is now thrown out, therefore prays  
"for your protection."

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### MEMORANDUM AT CALPENTYN PEARL FISHERY IN MARCH 1832.

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Monday 5. Received written orders from the Commissioner of Revenue to allow the following Temple Boats to fish in addition to the fifty boats composing the fishery; viz, Ramisseram Temple, two boats; Wootiacosananga Temple, one boat; and Durbesaurem, one boat. About 9 this evening, Mr. Alvis and Comarasamy Modliar came to inform me, that another boat had arrived, with some Priests from the Pagoda of Trichindore, to request permission to fish with one boat during the fishery, and that they had examined their certificates, but could not find any one that had been granted at other fisheries than those in the district of Manaar; although the Modliar thought he had seen a Chilaw Certificate in possession of these priests when at Aripo last year. They enquired of the priests if they had ever attended at the Chilaw fisheries; they answered that they had, but had been refused their privilege, and they came now with a hope of better success.

Conceiving that we could ill spare Temple Boats at this small fishery, if clearly the right of the Temples, and as the confession of the Trichindore Priests amounted almost to a certainty, that their Temple was not entitled to any boats except at the Manaar fisheries, I ventured to forbid this Temple sending out a boat to fish, and wrote a note to Mr. Boyd to explain what I had done. Calm most of the evening.

Thursday 8. Mr. Templer the Collector of the District, on visiting the Cotoos heard several complaints made by the Divers, that the Cutwal had ordered 65 Oysters to be taken from each stone, instead of the 16 privilege oysters ordered by Government, the additional 49 being for Hindoo Churches. This Mr. Templer brought to the notice of Mr. Boyd, who sent for the Modliar to enquire into the same. The Modliar explained that the Cutwal had taken on himself to give notice that 65 oysters were to be deducted from each stone "as usual," and that the boat-owner had deducted them,—but they had not delivered the 49 to the Cutwal as yet. The Cutwal had been requested to collect these charity oysters for the Temples and he intended to receive them from the boat-owners. Mr. Boyd directed that those divers who objected to give these "charity" oysters might have them back again, and that the act of charity or alms-giving on the part of the divers should be voluntary;—he blamed the Cutwal for publishing any order of the kind and forbid him to collect the charity oysters in future. I am afraid this matter would not bear a very strict public enquiry.

Monday 12. On Saturday afternoon, some more Priests having arrived, they applied at the Cutchery for permission to fish, and on their being informed that their Sanasses had been granted for the fisheries at Manaar and Tuticoreen, and did not extend to the present fishery, they stated their poverty and disappointment, and said, that they were now deprived of every benefit, as the divers had objected to pay the usual tithe or alms; this tithe amounting to 245 oysters from each boat. They were told, we could not interfere between them and the divers, that in such matters the Government had no control. On their appearing to intimate, that the divers had withheld the tithe oysters on the understanding that Government wished them to do so, Mr. Boyd ordered the Tindals and Divers to be assembled, and when they had assembled he addressed them saying, he understood from the several Priests that the Temple Oysters had been withheld, and he requested to be informed on what grounds they had not been given as usual at other fisheries. The Tindals and Divers answered, it was in consequence of their very small loads that they could not afford to give them. They were then recommended to endeavour to come to some understanding with their Priests, to arrange a proportionate rate of tithe; and on the Tindals asking what number of oysters it was desired they should give, they were distinctly told that they must settle that with the Priests, but it was hoped they would come to some amicable settlement; the Priests expressed their unwillingness to comply with this recommendation and the Tindals also.

It appeared to be quite evident that the secret wish of the Tindals was to be rid of the Priests and to give no alms or charity whatever. And when it is considered that these reductions from their very small shares at this fishery are most severely felt by them, it is by no means surprising. At Aripo it is not uncommon for a boat to bring on shore 20,000 oysters; the Fisher's share, being  $\frac{1}{4}$  is 5000; therefore 245 oysters out of 5000 when oysters are only worth 10 Rupees per thousand, is no great matter, being only about 2 Rupees: whereas the boat loads at this fishery do not exceed 5000, which leaves the fishers but 1250, oysters, and 245 out of this small number, is a serious deduction, and a valuable one too, when oysters are selling at 20 Rupees per thousand.

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### MEMORANDUM.

26th December 1834.

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The privilege enjoyed by certain Heathen Temples viz., that of employing one or more boats at pearl fisheries, was discontinued by Sir Edward Barnes, but on the representation of the East India Company to the Secretary of State, an order came from home for the privilege to be restored to all the Temples which had previously enjoyed it. There are now 10 \* boats allowed to fish for the Temples at all pearl fisheries, on the Priests producing their Sanasses or Certificates of privilege.

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\* 9 in the Madras presidency, and 1 in Ceylon: the latter allowed once only.

It has been supposed by some persons, that the Madras Government were indirect gainers by the restoration of these privileges to the Heathen Temples. But I have since been told, that the correspondence on the subject with the Home Government leads to the conclusion, that these privileges are considered to be concessions to the Natives, which it would be impolitic to withdraw.

It is probable that the full extent of the circumstances attending these concessions is not correctly understood in London, and if a proper representation of the subject was made, some modifications would be the consequence; even if it should be thought inexpedient to withhold all further indulgence.

When these privileges were first granted, the practice of conducting the fishery of the Oyster beds was devoid of a system having for its object regular yearly fisheries. A whole bank was cleared at one fishery, on which many beds of immature oysters were destroyed which would have been productive in subsequent years. At these fisheries several hundred boats were employed every day, and the addition of 10 boats for the Temples, was, on such occasions, unworthy of consideration. But under an improved system, promising yearly fisheries on such beds only as became mature, it has been found expedient at times to fish with less than 50 boats. If to 50 boats the 10 Temple boats be added, the result is a most serious deduction from the proceeds of the Revenue from the Pearl Fisheries, and a much greater boon to the Priests, (who have not contributed in the slightest degree to the expense of preserving the Oyster beds or the arrangements for the fishery) than was ever anticipated.

It will be necessary to mention other perquisites of these Priests, when remarking on the oysters received from the Fishermen as privileges to the public Servants.

With respect to the indulgence enjoyed by the fisher Headmen or Adapanaars, that of allowing them to fish for themselves at Pearl fisheries:—such practice is objectionable, as the headmen with their divers and boats are employed in fishing for themselves instead of seeking for proper places on the oyster bed to be fished by the boats on the following day. There is something however in favour of this indulgence—which is, that it comes out of the sea, to the apparent injury of no person, and it insures to the fishing boats certain marks, to the very best of the knowledge of the headmen, where the oysters are good and plentiful, for it is natural for the headmen to place their own boats over the best places known to them. But the same advantage might be secured, by allowing the headmen to have distinct boats to fish for them, instead of the boats they go in themselves to carry on their duty.\* The Manaar Adapanaar has at times evinced a disinterestedness in not availing himself of this indulgence to the fullest extent, which has frequently attracted my attention.

The oysters taken as privileges have been fully treated on in a Memorandum of a Plan for the management of the Pearl fishery drawn up by me in 1829.

Although the privilege of receiving oysters is objectionable, it forms but a trifling tax on the fishermen, when compared with oysters extorted from them in the name of charity to certain Priests and Temples (in addition to the 10 boats already alluded to) and very frequently these collections are imposed in the name of 'Charity' by the wealthier boat purchasers and renters, and, it is to be feared, by the subordinate native public servants for their own benefit.

The Oysters authorized by Government to be received by their servants from each boat amount generally to 75, and when Government Peons are put into the boats 85.

The oysters demanded in the name of charity are generally 200, and not unfrequently amount to 340 from each boat.

The best remedy for these abuses would be, to forbid the Officers and Servants of the Fishery to speculate in Boats, Oysters or Pearls, as recommended in my memorandum of 1829, and strictly forbid them to receive fees or payment from any other source than the Government.

The tax on licenses to fish, imposed by Government on the Boat Owners was at one period paid as a fee of two pagodas each boat to the Master Attendant. Instead of this fee being

\* This is now the case.

remitted to the boat people, it has been increased and collected as a revenue by Government and appears a strange kind of welcome to the owners of boats, who accept the invitation held out by the Government Advertisement, to come themselves, or to send their boats to the fishery.

The Master Attendant now receives 10 oysters from each boat, the same number as the Commandant.\* These oysters generally fetch the highest price, as the Native who buys them (on a written paper from the Officer selling his oysters) has the chance of collecting a few more.

The Right Hon'ble

Sir R. J. Wilmot Horton

&c. &c. &c.

Colombo, 10th February 1834.

My Dear Sir,

With reference to the extract from Mr. McCulloch's Commercial Dictionary on the article "Pearls," which your Excellency has been pleased to favor me with, I cannot but regret that matter so contrary to fact, and inferences so unwarrantable should find their way into a work, on which so much labor and expense must have been bestowed, and to which so much credit is given. In making my observations I shall endeavour to confine myself to what has taken place since I have been in Office, a period of nine years.

The East India Company have no establishment for guarding, surveying, and managing their Pearl Banks off Tuticoreen, and, as may be supposed, they derive no revenue from Pearls worthy of consideration.

The expenses which are incurred expressly for the guarding, surveying, and managing, the Ceylon Pearl Banks during the last nine years may be estimated at £ 15,000.

The net Revenue paid into the Treasury, derived from Pearl fisheries in the same period being £ 145,000, shewing a clear profit or gain of £ 130,000 in nine years.

Mr. McCulloch has declared the contrary to be the fact in the following words—"that the sums for which the fishery is let do not equal the expenses incurred."

Incorrect statements of expenditure and receipts, obtained from sources which he may have had reason to rely on, may have misled Mr. McCulloch in the question of profit and loss; but it is difficult to conceive how a man, possessing the talent and information requisite to write a Commercial Dictionary, should be so unacquainted with the nature of such preserved fisheries. He should have considered whether there were preserved fisheries in England, and whether the laws, rules and regulations for such particular fisheries, were necessary or not.

Can it be supposed, if all persons were allowed to fish for pearl oysters that they could be restrained to wait the perfection of the Oysters? and unless they did wait, how great would be the loss of pearl! Oysters of 5 years old contain but little pearl, at six years the quantity of Pearl is doubled, and again doubled in another year, if the oysters remain so long alive.

It is not however so much the fear of destroying the breed of Pearl Oysters, which renders rules and regulations for the protection and management of pearl fishery so particularly necessary, but it is to ensure the best possible value being obtained from the Pearl being allowed to obtain perfection.

With respect "to the oppressive regulations enacted by the Dutch," I can safely say I am ignorant of any such oppression.

We have a guard Vessel on our Oyster beds; so have the people at Feversham, Whitstable and many other places. Offenders against the rules for the protection of the Pearl Oysters, must be convicted in a Court of Justice, before punishment can be inflicted in Ceylon, in the same manner as offenders against similar laws in England.

\* Discontinued since 1835.

# APPENDIX.

Here the power and management of the oyster fisheries are vested in the Government. In England, the general management and control are vested in Municipal bodies, who limit the season or period for fishing; and in some cases, the quantity of oysters each fisherman may fish daily during the season.

In England the expenses of protection and management are defrayed in various ways:— the Ceylon Government have only one way; a way so perfectly satisfactory to the Fishermen, that when a fishery is announced, more boats and more divers attend than are necessary. They come from the coast of India, as well as from the Ports of Ceylon, anxious to be employed on the terms which have been known for years.

The Divers remain under water when at work on the Pearl Banks, from 50 to 55 seconds. On one occasion I was present when a reward was offered to the Diver, who would remain the longest under water. The man who obtained the reward, was 87 seconds under the sea. The net is not fastened round the neck of the Diver, but is suspended to a cord and lowered from the boat; and when the Diver gives the signal by shaking the cord, the net is hauled up with its contents, by a man in the boat. The Diver is also assisted in his ascent to the surface by the same cord, which he can retain hold of, climb up, or forsake at his pleasure.

Divers are not generally more shortlived than other fishermen, boatmen, coolies, or labourers; indeed some natives believe that divers live longer than coolies or labourers at hard work.

It is a mistake to suppose the chief employment of Divers is at pearl fisheries any more than the chief employment of London watermen is in rowing Regattas: the watermen learn to row to get their daily bread; the Divers learn to dive and dive daily for their living; a pearl fishery is to them, what the Regatta is to the watermen: a kind of holiday recreation and profitable employment.

I am

Your Excellency's

Faithful and obedient Servant

(Signed) JAMES STEUART.

*Statement of the Expenses which may be considered as incurred on account of the guarding, surveying, and managing the Pearl Banks during the time I have been in Office, or a period of nine years.*

These expenses consist of the following Items viz.

The Supervisor's Pay per Annum .....	£ 200 0 0
The Inspector receives no Pay, nor any pecuniary allowance. He has hitherto drawn his pay as Master Attendant and Inspector of Pearl Banks. But by the new Schedule his pay is fixed as Harbour Master at Colombo and no mention is made of the duty on the Pearl Banks, or indeed many other duties unconnected with that of Harbour Master, of equal or more importance.	
The Interpreter's Pay per Annum .....	54 0 0
Hire of Inspection Boats and Pay to Headmen for { each Inspection } Attendance ..... { about }	150 0 0
Cost of Buoys for marking the oyster beds, each Inspection about .....	15 0 0
Diving Bell Establishment per Annum .....	47 10 6
For several years two Government Vessels were alternately employed guarding the Pearl Banks, and in other duties; such as the conveyance of Stores and Troops. Now we have only the smaller one, and she is occasionally employed on other Government duty. But as I am sure it is absolutely necessary to have a Vessel for the Pearl Banks, I include the annual expense of this Vessel .....	
	£ 855 2 0½

Extra men for the Government Boats belonging to the Master Attendant's Department at each Inspection .....	13 11 0
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From the above Statement of the several Items of expenditure, I deduce the following Estimate of expense of the Pearl Fishery Establishment for the last Nine Years viz.

1825. The Inspection in March was attended with considerable expenses, a Diving Bell was used the first time on the Banks. The expense may be estimated at .....	£ 350 0 0
No Inspection took place in October.	
1826. March Inspection .....	350 0 0
October do. ....	250 0 0
1827. March do. ....	250 0 0
October do. ....	250 0 0
1828. A fishery took place in March and the expenses were paid out of the proceeds. October Inspection .....	250 0 0
1829. A Fishery in March October Inspection .....	250 0 0
1830. A Fishery in March October Inspection .....	250 0 0
1831. A Fishery in March October Inspection .....	250 0 0
1832. A Fishery in March October Inspection .....	200 0 0
1833. A Fishery in March October Inspection .....	200 0 0
1834. There <del>were</del> neither Fishery nor Inspection .....	
Total expenses of the Inspections of the Pearl Banks when no } Fishery took place .....	£ 2850 0 0
Nine years' Pay to the Supervisor .....	1800 0 0
Do. Do. „ Interpreter .....	486 0 0
Seven years' expenses of the Diving Bell Establishment including incidental expenses .....	400 0 0
Nine years' expenses of one Government Vessel .....	7695 0 0
	<hr/> £ 13,231 0 0

If the Cost of the Diving Bells be included, the amount of the expenses may be taken at £ 15,000 for Nine Years.

*Statement shewing the probable amount which a Diver earned at a pearl fishery, consisting of 100 Boats employed 8 days, which yielded to Government £ 25,000.*

As the Government received three fourths of the oysters taken at the Fishery, and as these three fourths sold for £ 25,000, the one fourth which belonged to the Fishermen would amount to £ 8,333 6 8;—this sum divided by the number of boats employed, 100, gives £ 83 6 8 as the average amount to each boat for eight days fishing, or £ 10 8 4 for one day, which has to be subdivided as follows viz. .... £ 10 8 4

Deduct  $\frac{1}{6}$  for the Owner of the boat ..... 1 14 8 $\frac{1}{2}$

The Estimated amount of the contents of 6 Nets of Oysters from each Stone for the Toda, Tindal and Sommanotty, in all 30 Nets full, is considered to amount to one sixth of the Oysters taken up by one boat. This  $\frac{1}{6}$ , and the portion of Oysters to each of the 5 stones make six portions, and renders it necessary to divide the above sum by .....

	6/	£ 8 13	7½
This sum divided by .....	3/	1 8	11¼
gives a diver's share per diem....		0 9	7¾

Or for the eight days £ 3 15 4, which for 1000 divers, the number employed in 100 boats is £3,766 13 4.

## EXTRACT FROM MR. McCULLOCH'S COMMERCIAL DICTIONARY.

### ARTICLE "PEARLS."

"Pearls (Du. *Paarlen*; Fr. *Perles*; Ger. *Perlen*; It. *Perle*; Lat. *Margarita*, Rus. *Shemtschug*, *Perlii*; Sp. *Perlas*; Arab. *Looloo*; Cing. *Mootoo*; Hind. *Mootie*), are well known globular concretions found in several species of shell-fish, but particularly the mother-of-pearl oyster (*Concha margaritifera* Lin.). Pearls should be chosen round, of a bright translucent silvery whiteness, free from stains and roughness. Having these qualities, the largest are of course the most valuable. The larger ones have frequently the shape of a pear; and when these are otherwise perfect, they are in great demand for ear-rings. Ceylon Pearls are most esteemed in England.

"*Value, &c. of Pearls.*—Pearls were in the highest possible estimation in ancient Rome, and bore an enormous price. (*Principium culmenque omnium rerum pretii margarita tenent.* Plin. *Hist. Nat.* lib. ix. c. 35). Their price in modern times has very much declined; partly, no doubt, from changes of manners and fashions, but more probably, from the admirable imitations of pearls that may be obtained at a very low price. According to Mr. Milburn, a handsome necklace of Ceylon pearls, smaller than a large pea, costs from £170 to £300; but one of pearls about the size of peppercorns may be had for £15: the pearls in the former sell at a guinea each, and those in the latter at about 1s. 6d. When the pearls dwindle to the size of small shot, they are denominated *seed* pearls, and are of little value. They are mostly sent to China. One of the most remarkable pearls of which we have any authentic account was bought by Tavernier, at Catifa, in Arabia, a fishery famous in the days of Pliny, for the enormous sum of £110,000! It is pearshaped, regular, and without blemish. The diameter is 63 inches at the largest part, and the length from 2 to 3 inches.

"Much difference of opinion has existed among naturalists with respect to the production of pearls in the oyster; but it seems now to be generally believed that it is the result of disease, and is formed in the same manner as bezoar—(see Bezoar); pearls, like it, consisting of successive coats spread with perfect regularity round a foreign *nucleus*. In fact, the Chinese throw into a species of shellfish (*mytilus cygneus*, or swan muscle), when it opens, 5 or 6 very minute mother-of-pearl beads "strung on a thread; and in the course of a year they are found covered with a pearly crust, which perfectly resembles the real pearl. Milburn's *Orient. Com.*; Ainslie's *Mat. Indica*, &c.)"

NOTE.—In reference to the above Statement, it appears the 1000 Divers would share among them upwards of 11 per Cent of the whole value of the fishery. It may therefore be estimated, that in general the *divers alone* who are employed at pearl fisheries divide among them at least one tenth of the Oysters.



" Pearl Fisheries.—The pearl oyster is fished in various parts of the world, particularly on the west coast of Ceylon; at Tuticoreen, in the province of Tinnevely, on the coast of Coromandel; at the Bahrein Islands, in the Gulf of Persia; at the Sooloo Islands; off the coast of Algiers; off St. Margarita, or Pearl Islands, in the West Indies, and other places on the coast of Columbia; and in the Bay of Panama, in the South Sea. Pearls have sometimes been found on the Scotch Coast, and in various other places.

" The pearl fishery of Tuticoreen is monopolized by the East India Company, and that of Ceylon by Government. But these monopolies are of no value; as in neither case does the sum for which the fishery is let equal the expenses incurred in guarding, surveying, and managing the banks. It is, therefore, sufficiently obvious that this system ought to be abolished, and every one allowed to fish on paying a moderate license duty. The fear of exhausting the banks is quite ludicrous. The fishery would be abandoned as unprofitable long before the breed of oysters had been injuriously diminished; and in a few years it would be as productive as ever. Besides giving fresh life to the fishery, the abolition of the monopoly would put an end to some very oppressive regulations, enacted by the Dutch more than a century ago.

" *Persian Gulf.* The most extensive pearl fisheries are those on the several banks not far distant from the Island of Bahrein, on the West side of the Persian Gulf, in lat. 26°50' N, lon. 51°10' E; but pearl oysters are found along the whole of the Arabian coast, and round almost all the islands of the gulf. Such as are fished in the sea near the islands of Karrak and Corgo contain pearls said to be of a superior colour and description. They are formed of 8 layers or folds, whilst others have only 5, but the water is too deep to make fishing for them either very profitable or easy. Besides, the entire monopoly of the fishery is in the hands of the Sheik of Bushire, who seems to consider these islands as his immediate property. The fishing season is divided into two portions—the one called the short and cold, the other the long and hot. In the cooler weather of the month of June, diving is practised along the coast in shallow water; but it is not until the intensely hot months of July, August and September, that the Bahrein banks are much frequented.

" The water on them is about 7 fathoms deep, and the divers are much inconvenienced when it is cold; indeed they can do little when it is not as warm as the air, and it frequently becomes even more so in the hottest months of the summer. When they dive, they compress the nostrils tightly with a small piece of horn, which keeps the water out, and stuff their ears with bees-wax for the same purpose. They attach a net to their waists, to contain the oysters; and aid their descent by means of a stone, which they hold by a rope attached to a boat, and shake it when they wish to be drawn up. From what I could learn, 2 minutes may be considered as rather above the average time of their remaining under water. Although severe labour, and very exhausting at the time, diving is not considered particularly injurious to the constitution; even old men practise it. A person usually dives from 12 to 15 times a day in favourable weather; but when otherwise, 3 or 4 times only. The work is performed on an empty stomach. When the diver becomes fatigued, he goes to sleep, and does not eat until he has slept some time.

" At Bahrein alone, the annual amount produced by the pearl fishery may be reckoned at from £ 200,000 to £ 240,000. If to this, the purchases made by the Bahrein merchants or agents at Aboottabee Sharga, Rasul Khymack, &c. be added, which may amount to half as much more, there will be a total of about £ 300,000 or £ 360,000; but this is calculated to include the whole pearl trade of the gulf; for it is believed that all the principal merchants of India, Arabia, and Persia, who deal in pearls, make their purchases, through agents, at Bahrein. I have not admitted in the above estimate much more than *one sixth* of the amount some native merchants have stated it to be, as a good deal seemed to be matter of guess or opinion, and it is difficult to get at facts. My own estimate is in some measure checked by the estimated profits of the small boats. But even the sum which I have estimated is an enormous annual value for an article found in other parts of the world

“as well as here, and which is never used in its best and most valuable state, except as an ornament. Large quantities of the seed pearls are used throughout Asia, in the composition of majoons, or electuaries, to form which all kinds of precious stones are occasionally mixed, after being pounded, excepting, indeed, diamonds; these being considered, from their hardness, as utterly indigestible. The majoon, in which there is a large quantity of pearls, is much sought for and valued, on account of its supposed stimulating and restorative qualities.

“The Bahrein pearl fishery boats are reckoned to amount to about 1,500, and the trade is in the hands of Merchants, some of whom possess considerable capital. They bear hard on the producers or fishers, and even those who make the greatest exertions in diving hardly have food to eat. The merchant advances some money to the fishermen at cent. per cent. and a portion of dates, rice, and other necessary articles, all at the supplier's own price; he also lets a boat to them, for which he gets one share of the gross profits of all that is fished; and finally, he purchases the pearls nearly at his own price, for the unhappy fishermen are generally in his debt, and therefore at his mercy.”—(*Manuscript Notes communicated by Major D. Wilson, late Political Resident at Bushire.*)

“The fishery at Algiers was farmed by an English association in 1826, but we are ignorant of their success.

“The pearl fisheries on the coast of Columbia were at one time of very great value. In 1587, upwards of 697 lbs. of pearls are said to have been imported into Seville. Philip II had one from St. Margarita, which weighed 250 carats, and was valued at 150,000 dollars. But for many years past the Columbian pearl fisheries have been of comparatively little importance. During the mania for Joint Stock Companies, in 1825, two were formed;—one, on a large scale, for prosecuting the pearl fishery on the Coast of Columbia; and another, on a smaller scale, for prosecuting it in the Bay of Panama and the Pacific. Both were abandoned in 1826.

“The best fishery ground is said to be in from 6 to 8 fathoms water. The divers continue under water from a minute to a minute and a half, or at most 2 minutes. They have a sack or bag fastened to the neck, in which they bring up the oysters. The exertion is extremely violent; and the divers are unhealthy and short-lived.”

The Honble

The Colonial Secretary

&c.      &c.      &c.

Master Attendant's Office.

Colombo 21st November 1836.

SIR,

In pursuance of the Right Hon'ble the Governor's commands conveyed to me in your letter of the 9th of September, I have the honor to report for His Excellency's information, that I have examined the state of the Pearl Banks off Aripo, with the view of accounting for the deposits of Oysters which were found by me in 1834 and 1835, and of which several were not found by the Supervisor and Adapanaars at the Fishery of this year; and that I have ascertained that some of the places were not discovered by the Supervisor, owing to circumstances, which, in justice to that Officer, I feel bound to say, do not detract from his ability as a practical nautical Surveyor, nor from his zeal in the faithful discharge of his duty.

A sufficient quantity of Oysters has been found on No. 10, the N. E. Chival to warrant the expectation of a Pearl fishery next March with 50 boats for 10 days, and 5550 Oysters have been taken up, to be washed as a sample for ascertaining the value of those still remaining on this bed.

The Oysters on this bed, No. 10, bear a very small proportion to those contained in the Adapanaar's Estimate of November 1835, appended to my report, which estimate was not however framed from any examination at that period (for the weather did not admit of an examination), but with reference to their previous inspection.

The causes of this great diminution in the quantity of oysters are attributable, among other circumstances, to the following facts:

1st, The numerous rock fishes which abound on the Aripo Banks feed on the oysters, and while the oysters are young and the shells tender, the quantity devoured by these voracious fish must be very considerable.

The Seamen on board the Government Ship "Wellington," who are in the habit of catching these rock fish, commonly find pieces of pearl shells and even the flesh of the oysters in their stomachs,—from whence they have sometimes extracted pearls.

2dly. I have ascertained from such questions as I have put to the Adapanaars, and indeed to the Supervisor himself, that some of the boats at the last pearl fishery, did on some days fish beyond the assigned boundaries and take oysters from the N. E. Chival.

Such facts as I have above stated should, His Excellency will perceive, be taken into consideration when it is attempted to account for the decrease of the quantity of Oysters reported to be on the N. E. Chival, in addition to that mortality incident to all living creatures.

The Oysters now on the N. E. Chival, extend upwards of 2 miles north and south, and  $1\frac{1}{2}$  miles east and west. But they lie in detached spots, and do not, as formerly, extend over the whole space; and the divers employed at this examination, have brought up as many dead oyster-shells, as they have live oysters.

The practice pursued in former years, of fishing a whole bank with some hundreds of boats, was detrimental to regular moderate fisheries. And I am still of opinion, that it is only by a rigid adherence to fishing such particular beds of Oysters as may be mature on the Banks, however small, that any thing like constant revenue can be drawn from the Pearl fishery.

During the absence of the Supervisor and the Adapanaars from the fishing ground of the last fishery, upon an inspection of distant places, the fishermen wandered beyond the prescribed boundaries.

At the Fishery of 1835, I found difficulty in restraining the fishermen at all times, owing to a relaxation of the discipline which empowered the Officers of my Department to inflict prompt punishment on the offending parties in their own boats:—a salutary discipline, which I myself can testify was never abused, but which, the late changes affecting the Heads of Departments have done away with; and the Headmen and subordinate Officers of Government, have not moral courage to resort to the only means which could obviate the unjustifiable conduct of the fishermen. They fear the consequences of complaint to the authorities on shore. Nor was the Supervisor himself aware, at the time, of the extent of the injury done in his absence.

The bed of Oysters on the North Chival No. 2, [from which a sample was taken in 1835, and advertized to be fished at the last fishery] was actually fished, although not specially mentioned to have been so. I believe there may have been a few oysters only remaining on it,—but I am warranted in saying that it was fished by the boats when fishing the west and N. W. of the Chival. As it formed a continuous bed from the N. W. to the N. E. Chival, the boats passed at times over the whole range from one bed to the other, and it is ascertained that there are no oysters now remaining in this place.

I also believe that the fishery on the Modregam, No. 3, extended to part of the Chival on the East and S. E. and it was obviously on this account, that the fishery on this Bank was apparently more productive than was expected.

A sample of 3000 oysters has, under my directions, been taken from No. 5, the S. E. Chival, on which bed it was reported that no more oysters could be found at the last fishery;—and an Estimate has been made by the Adapanaars, that a fishery may be held on this bed next March with 50 boats for two days.

I regret that the bed of old oysters No. 1 on the South of the Chival, should have been overlooked at the last fishery. It is my duty to remind His Excellency, that I have on a previous occasion attributed such accidents to a want of the combination in one person, of professional science with local experience and practical knowledge in this particular pursuit.

The Adapanaars, having searched as directed by the Supervisor, found a few oysters which resembled those sought for, but as they could find no more, the search was abandoned with the full conviction that the oysters on the South Chival had died.

This bed has been carefully examined, but the number of oysters which remain alive upon it is so extremely inconsiderable as to hold out no prospect of its being productive at the next fishery. The oysters taken up by the divers during its examination, amounting to 830 have been preserved as a sample.

The bed of oysters No. 4, adhering to the Pinna shell on the North of the Perriapaar carra was fished as reported, and the remnant of a buoy placed near it by my direction in 1835, was found by the divers when taking up the oysters.

In attempting to make a more general inspection of the banks, which I undertook, in consequence of the indisposition of Mr. Quintom, I regret to state, that the weather did not admit of more than three days' examination, during which time, the deposits of young oysters found on the Banks were too inconsiderable to warrant any conclusions being drawn from them, as to future prospects on the Aripo Banks.

In carrying on the examination deputed to me, I have communicated fully with Mr. Quintom and cooperated with him as far as practicable,—have laid down buoys, and have furnished him with copies of my sketches of the land marks and compass bearings, in order that he may determine the position of the beds of oysters, from whence the samples have been taken, without difficulty.

I have the honor to be

Sir, Your obedient Servant

(Signed,) JAMES STEUART.

*Memorandum—Drawn up at the desire of The Right Honorable JAMES ALEXANDER STEWART MACKENZIE, on His Excellency's assuming the Government of Ceylon.*

Colombo, 12th December 1837.

I believe it is generally better when there is an intermediate professional authority between the Government and the Officer employed on the Pearl Banks. But the Officer holding such authority, should understand the nature and the service of the duty performed at sea.

All professional men are extremely tenacious of their position, and jealous of interference in the execution of their duties. To the want of due consideration of these circumstances, the revenue from pearl-fisheries has suffered great injury. It has also suffered from the want of system in fishing the Banks.

If we go back to the fisheries in former times, we find whole banks fished, without regard to the ages of the oysters on many of the beds within the range of the fishery; and there were long intervals of no fishery in consequence.

In those days, there was a Superintendent of the Pearl fishery—an office held by the Governor's Private Secretary without salary, but remunerated by a commission on the receipts of the revenue from the Fishery. The Master Attendant also assisted in the nautical parts of the duty, and received for so doing certain fees on the licenses granted to the boats for fishing on the banks during the fishery, and a number of oysters from each boat.

Certain parts of this system continued during the time that Sir EDWARD BARNES was Lieutenant Governor, whose Secretary, Lieutenant Colonel HAMILTON, having failed to obtain above £ 5000 revenue from the Banks, recommended that an Officer should be paid, solely to look after the Pearl fisheries.

Sir EDWARD PAGET acted partially on the recommendation of Colonel HAMILTON, and appointed the Collector of Manaar resident Supervisor of the Pearl fishery, on a fixed salary. This appointment of a Civilian, more than the loss of the fees on boats' licenses, offended the Master Attendant of that time; and he never hesitated to say, that he resolved to leave the success of the fisheries to the Supervisor's management; and confine himself to the professional duties actually required of him. From this time no fisheries took place until after I came into office; and indeed, the only one in my immediate predecessor's time, was the one before mentioned, as realizing only £ 5000 under the management of Lieut. Colonel HAMILTON.

On Sir EDWARD BARNES resuming the Government, he turned considerable attention towards obtaining a Revenue from Pearls; and when I arrived in Ceylon in April 1825, to take office as Master Attendant, he was personally attending an Inspection of the Pearl Banks. After my appointment, Sir EDWARD BARNES went with me to the banks on several occasions, and observed the interest I took in the fishery and the plans I adopted to insure success.

About this time, the promotion in the Civil Service affected the offices of Collector of Manaar and resident Supervisor of the Pearl fishery, so as to cause them to be held by *five* different individuals in succession, within the short space of three years.

Persons unacquainted with nautical matters and so frequently changed, were not likely to gain much knowledge of the Banks, or to perfect a system for managing them to advantage, while I, possessing practical knowledge of fisheries in general, and giving my attention to this in particular, soon became familiar with every oyster bed on the banks off Aripo.

The Collector of Manaar was also Provincial Judge of the District. The duties of these two Offices prevented his visiting the pearl banks at the time of the fishery to superintend their management and fishing;—the whole duty afloat, therefore, devolved on me, and brought with it a degree of discretionary responsibility, which has not been hitherto fully understood.

The Renter of a pearl fishery paid a certain consideration for the liberty of fishing a particular bed of oysters, with a certain number of boats, for a certain number of hours, on a certain number of *favourable* days. The Master Attendant had not only to decide on the suitable state of the weather for the boats to proceed to the banks, but to exercise his discretion as to the state of the weather during the hours of fishing, and to extend the period of fishing beyond the prescribed hour, to compensate the Renter for such portion of the allotted time, as might prove to be unfavourable—*time*—be it remembered, the cost price of which was often six pounds sterling per minute. Many overtures were made to me by the Natives to become a shareholder in the Rent. Their object was obvious. I felt the importance of my duty, but never shrunk from its execution; always giving an extension of time when I saw the justice of making the concession, and as rigidly withholding the same, when the weather was such as was contemplated by the spirit of the contract, between the Government and the Renter. And I have the happiness of knowing, that I gave the contracting parties the fullest satisfaction in the end. Such exercise of discretion may be open to objection—it must however rest somewhere; and while it rested on me, I felt perfectly at ease in doing impartial justice to the best of my judgment.

Defective as this system may be considered on general principles, yet the Pearl fisheries were successful, and promised to become almost a yearly source of revenue.

When the Commissioners of Inquiry came to Ceylon, I fully expected that they would question me respecting the Pearl Fishery. They however did not do so; and I have since regretted that I did not of my own accord, submit to them my private Memoranda and practical observations, of the existence of which they and the Government were ignorant. They read the official records and diaries which were penned by the former superintendents,

and by the different Collectors who were, and had been, the Supervisors. The perusal of such documents induced them to recommend, that a Naval Officer should be appointed Superintendent of the Fishery, who should reside permanently at Aripo. On the arrival of their printed Report in Ceylon which came previous to the orders of the home Government on the subject, the Government of Ceylon called on me for my opinion on the Commissioners' recommendation respecting the Pearl fishery. My replies are on record, containing in substance, that the appointment of a Naval Superintendent was not likely to realize the expectations of the Commissioners, and suggesting the appointment of a young sea officer under me to become acquainted with the system I had pursued. I subsequently suggested, that if a Naval Officer should be appointed Superintendent of Pearl Fisheries he should not permanently reside at Aripo, but be placed in command of a good vessel capable of carrying 5 or 6 boats with crews and divers, as ships fitted for the whale fishery carry their boats and crews, in order, that Pearl Banks might be searched for on all parts of the coast of Ceylon; and when the ship should not be required on the special duty of the Pearl fishery, she might be usefully employed in conveying Troops and Stores from one part of the Colony to another.

Sufficient confidence was placed in my opinion, to delay the appointment of a Superintendent of the Pearl Banks, until some time after the conducting of the sale of Pearl Oysters devolved on the Government Agent. This gentleman was desirous of possessing himself of information on the service afloat; to convey a clear understanding of which, to a person unacquainted with my profession, I found more difficult than the performance of the duty itself; and failing, as I believe I did, to make my system clearly understood, (a system which although possessing nothing particularly new in general science, was nevertheless new in its application to the Pearl Banks, and to which application of it, is mainly attributable the success under me of the Pearl fisheries,) it was deemed expedient for the Government to avail themselves of the existing sanction from home, and to fill up the appointment of a supervisor from the Navy. By this means, I was relieved of a duty I had successfully pursued,—which, had I been serving private persons, or public bodies, would have made me independent, but serving as I did, nominally under the Collector of Manaar, I did not receive even sufficient acknowledgment to shew my friends, (had it not been otherwise known to them,) that I had done my duty. In a word, I did the work, the Collector had the pay, while success would, most probably, be attributed to chance, or accident. Such was the consequence of a defective system in this case, I blame no one; I only regret the circumstance.

If I should not be promoted to an office requiring less physical activity than my present duty, it may become matter for consideration whether the large net sum of money amounting to £227,131-13-3 $\frac{1}{4}$  derived from the pearl banks, while under my actual management, although nominally under the supervision of the Collector of Manaar, should not have an influence in my favor, whenever it becomes necessary to replace me by a younger Officer.

Since I have been relieved of the care of the Pearl Banks, the Aripo Banks have been again exhausted, and unless some Oysters be discovered on some other part of the Coast there is, I regret to say, no prospect of an early Pearl Fishery, which renders further observations, particularly in reference to the mode of the sale of the oysters, for the present unnecessary.

When Mr. Quintom came to take charge of his office as Supervisor of the Pearl Banks, he brought with him the recommendation of Vice Admiral Sir BLADEN CAPEL, and certificates of his skill in nautical surveying. His knowledge of this art and his zeal in the service, are not therefore to be questioned. Yet at the fishery in 1836, he omitted to fish one whole bed of mature Oysters, other beds were fished by mistake, and very extensive injury was done to the Oyster beds intended to be reserved for future fisheries; and after the fishery of 1836, notwithstanding the state of the Banks when he took charge of them, he reported officially, that there was no prospect of a fishery in 1837. Which report induced the Government to direct me by letter dated the 9th. September 1836 to proceed to the Pearl Banks, specially to ascertain the cause of the above failure. The result of my visit to the banks and its consequences are set forth in my report dated 21st. November 1836, and which proves the errors

committed at the fishery of 1836; errors which, be it remembered, did not result from want of professional aid or zeal for the service. I also obtained samples of oysters shewing that a fishery should be announced for 1837. This fishery took place in March 1837, and produced a revenue of £ 10,631 4 9 $\frac{1}{4}$ . These facts shew clearly that if blame could not attach to the Officers of the Fishery, the system must be faulty, and but for the late change in it, the revenue from the Pearl Banks would not have terminated so abruptly.

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*Extract from a Report on Ceylon affairs made to the Right Honorable HENRY DUNDAS, Secretary of State for the Colonies in August 1799, by Lieut. Colonel DAVID ROBERTSON.*

#### PEARL FISHERY.

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The Revenue arising from the Pearl Fishery is the next in importance to that derived from the Cinnamon. The Banks from which the Pearl Oysters are taken are fourteen in number interspersed between Chilaw and Manaar in a space extending from North to South forty miles, and from East to West about 24 miles in the part that is the broadest, and in a depth of water that varies from three to fifteen fathoms.

Previous to the commencement of a Fishery, the banks were examined towards the latter end of October when the winds and currents are in general moderate between the breaking up of the South west and setting in of the North east monsoon, and from two hundred to a thousand oysters taken from each of them, which were opened examined and caused to be valued by the Superintendent of the Revenue. When from his report a fishery was determined upon, it was made known by public notice and offered to be let on particular terms to the highest bidder, and preparations for its taking place began about the beginning of January, when the weather assumes a settled appearance, by constructing near Aripo, at the expense of Government, bungalows and cadjan huts for the accommodation of the civil and military whose services were required at the fishery, and for the reception of the Renter and his attendants. The beach between Aripo and Condartchi was also cleared of the old oyster shells and regular lines marked out where the numerous adventurers, who were expected from all parts of India to speculate at the fishery, might build their bankshalls and huts.

The Farm of the Pearl Fishery during the management of Mr. ANDREWS was always advertized to be let, and sealed proposals were directed to be sent to him stating the sums that would be given and the securities that would be found; and under the sanction of the Madras Government it was granted to the highest bidder, who has constantly been CUNDAPPA CHETTY of Jaffnapatam in his own name, or some of his family in their name for him. The farm being thus granted to the highest bidder all the divers that offered themselves and were accepted of, became the servants of the Renter, and together with the boats that were employed, were totally at his disposal and he let or kept any number of the boats with their proportion of divers, and also enjoyed the immense privilege of retaining to himself the choice of any number of the best boats and divers that he was inclined to speculate with, and disposed of the others in whatever manner he judged best and most advantageous.

Ever since the conquest of Ceylon we have considered the Pearl fishery as consisting of thirty fishing days for one hundred and fifty boats, or four thousand five hundred-boat load of oysters, but as the weather and other causes which will be mentioned, seldom permitted thirty effective fishing days in a season, it was necessary to allow more than 150 boats to fish, in order to complete the farm, which was reckoned as finally closed whenever the 4500 boat load of oysters were collected, but as the uncertainty of our retaining Ceylon caused the Madras Government to consider it as advisable to draw as great a revenue as possible from it, whilst it remained in our possession, an agreement extremely detrimental to the Banks has subsisted between the Madras Government and the Renter of the Pearl fishery; that on

the conclusion of the Farm when the 4500 boat loads of oysters had been taken, he should have the permission of continuing the fishery, if the weather allowed it, for a daily payment of so much per boat in proportion to the rent and on the terms of the original farm. Those boats whose divers had become incomplete from death, sickness or desertion were fished in *aumanée* \* (under management) the oysters being counted by persons appointed by the Superintendent and paid for by the Renter at the exchange of the day, for the price of the pearl oysters continually vary during the course of the fishery. With these views and intentions it will easily be imagined that the boats employed greatly exceed the number of 150, and it was estimated that they amounted to fully three hundred.

The boats employed at the Fishery are of the same construction as those that have been commonly used in Ceylon from time immemorial, the planks of which are sewed together with strong twine made from the cocoa nut,† and the interstices are filled up with dammer, a kind of pitch, and the bottoms of the outside of the boats covered with a thick coat of the same substance. The lightness of the construction gives an astonishing elasticity and pliability to the sides of the Vessel whilst at the same time it is of sufficient strength to resist the severest weather. They have only one mast with an enormously large sail, and are in general about one ton in burden.‡ To prevent the accidents that might arrive to the Divers by striking against the bottoms of the boats when rising from their dive, a kind of scaffolding of oars and other pieces of wood is projected from each side of the boat, and to these scaffolds the diving cords are fixed. Independent of the crew that is required for its navigation, ten divers and five diving stones are put into each pearl boat, and to each of the diving stones, besides the ropes used for letting them down and pulling them up, a loop of strong rope is fixed for the diver to put his foot in when sinking. A net which is tied to his neck and kept distended by a piece of rattan or bamboo, and a rope fastened round his waist form all the accoutrements of the diver, and thus equipped,§ he puts his foot into the loop of the diving stone, the cord of which being let go, he finds himself in a moment at the bottom, when he immediately quits the diving stone, which is drawn up to be in readiness for his fellow diver, two being attached to each diving stone, and he proceeds without loss of time to collect and throw the oysters into his net. The desire to be restored to the air he communicates by his waist rope, which serves to haul him up, and the contents of his nets are conveyed into the boat, while he remains hanging like an amphibious animal to the outside of it until he has recovered breath sufficient to enable him to go down again. There are divers who do not require rest in the boat oftener than two or three times during six hours' work, and a famous diver has been known to go down upon trial, but not to take up oysters, thirty times in an hour, one minute up and the other down. They all say that they dive with much greater ease and convenience when their ears and nose have begun to bleed, but the exertion is so severe that in general they do not live long. ||

About the middle of February the Superintendent of the Revenue and the Guard for the Pearl fishery accompanied by the Renter and his attendants took up their residence at the bungalows and huts constructed near Aripo, and the lines that were marked on the beach were filled up with the huts and bazaars built by the various adventurers who were assembled waiting with anxious expectation for the calm that intervenes between the end of the North-East and the beginning of the South West monsoon. This calm which commonly lasts from thirty to thirty five days generally commences early in March, and is absolutely necessary for the taking of the pearl oyster, as it is only during its continuance that the sea is sufficiently

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\* In *Aumanée*—means on account of Government. J. S.

† The planks are no longer sewed together in these boats, but are well nailed to strong timbers.

‡ One ton in burden, is evidently an error, as a boat so small would not carry the crew of a fishing boat. J. S.

§ This is not the modern practice of the Divers and it is doubted if it ever were their practice at the Manaar pearl fisheries. See Mr. Le Beck's Account of the Fishery 1797 Page 91 J. S.

|| Since this Account was written, the divers at Pearl Fisheries have acquired a more free and easy manner of doing their work. J. S.



clear and free from currents to permit the divers to work in a depth that varies from three to fifteen fathoms. Deducting from these thirty or thirty five days the sundays that intervene, (for the divers, who are all Christians \* will not work on that day,) and the days that the boats are prevented from going out by too much wind from the North in the beginning of the season, and from the South towards its termination, besides accidental squalls and bad weather during the fishery, these causes are assigned for additional boats being employed to complete the term of thirty days.

This calm having taken place, the Fishery commences after a variety of superstitious customs still adhered to by the Natives, by the signal of a gun fired at midnight, when the Pearl boats set off conducted by the Pilot, and about six o'clock in the morning arrive at the place of their destination between five and six leagues from the shore and almost out of sight of land. Here they make the best use of their time until noon when another signal gun announces that they have fished the prescribed length of time and that they must return to the shore, where, if the sea breeze is strong they arrive at three o'clock, and if slight, about six in the evening. On the arrival of the boats on shore the oysters are divided into four parts by the divers, from which the boat holders choose three parts and the fourth is the property of the divers but if they are, as is most commonly the case, of unequal skill, the division into four parts is made on board the boat on the produce of each of the five stones, in order that the two divers attached to each stone may receive the just reward of their industry and skill. The proprietors of the boats who pay the crew and all the sailing expenses receive as a remuneration for that and the use of the boat the diver's share every seventh day of the fishery.† From the time that the boats have landed and the distribution of the oysters take place until midnight, is all the space that the divers and crew have for taking their victuals and for sleeping, but it is to be observed that the divers can sleep on board the boat during the passage to and from the banks, and that the crew can have a similar refreshment during the time allotted for diving.‡

The shape of all pearl oysters is nearly the same, being of an irregular oval with a segment cut off at a right line at the point of the junction of the two shells which are smooth on the outside, and they grow either on a sandy bottom or adhere to little detached pieces of rock from which the slightest effort is sufficient to separate them. They are also sometimes found in a form which the Arepans (native fishermen) style cables of oysters, of which an experienced diver takes advantage by coiling the whole into his net.

The small and middling sized pearls are found in the thickest part of the oyster at the point of junction of the two shells, and the larger ones almost quite loose in that part called the beard. Owing to the position of the large pearls, and to the oysters being always found gaping, the boat holders have to guard with the utmost vigilance and attention against their being stole by the divers and boats' crews, as by gagging the oyster they can feel for the Pearls with their fingers, and swallow or otherwise conceal them. One hundred and fifty pearls including seed pearl have been found in one oyster, and a similar number of oysters taken at the same time and from the same bank have been opened without one pearl being found. The pearl oyster is said to require from seven to nine years to come to maturity § in which state it only remains a short time when it casts its contents into the sea and dies, and the same effects are produced by their being violently shaken on the banks by the operation of the divers, or by any other cause. This singular peculiarity is generally believed by those Europeans and Natives, who are best informed regarding the pearl fishery, and it is in some

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\* Many divers are Mahomedans. J. S.

† This would not now be sufficient remuneration, and the Divers have to give up a much larger proportion of the fourth share of Oysters to the boat owner and the crews. J. S.

‡ As regards the crew, this is a mistake, they have to attend on the divers while they are at work, and frequently to remove the boat. J. S.

§ It is now ascertained with tolerable accuracy, that seven years is the maximum age of the pearl oyster. J. S.

degree confirmed by the well known impossibility of transplanting a bed of pearl oysters, which is so easily done with the common eating oysters. \*

The production of the pearl in the pearl oyster is by many regarded as arising from disease, as pearls are never found in the common oyster, whereas by others and with greater probability, the pearl oysters are considered as a distinct species of oysters, and that the production of the pearl is an original inherent quality. This supposition is not more strongly corroborated by the pearl itself than by the difference of the form and shape of the pearl oyster shells from the common ones,† but at the same time so uniform in its own species that no marked deviation of form has been found in the many millions that have been taken, and the want of the Pearl which occurs in the pearl oyster may be attributed to disease, or to that extreme delicacy that causes it to cast its contents and die when violently shaken. The meat of the pearl oyster is also quite different from the common oyster, being white, slimy and tasteless, and is not eaten except by some of the natives of the poorest and lowest castes.

The oysters when brought on shore are deposited on mats in the open air, and when beginning to putrify are thrown into a canoe or any other large vessel filled with salt water, where they remain until putrefaction has dissolved the meat and separated the shells, ‡ which are then taken out and carefully examined previous to their being thrown away, as the smallest excrescence of pearl is worth wrenching off either for being employed in medical preparations, or to be burnt into lime to be eaten with the paun and the beetle nut by the principal natives. Pearls of a considerable size are sometimes found attached to the shell and being carefully detached and filed, are strung with the perfect pearls, as the convex part of the pearl which was in contact with the shell is of the same size and perfect form with the part which projects beyond the surface of the shell. Pearls of this description, but not so perfect at the point of contact with the shell, serve the jeweller equally well for the purpose of setting as the perfect pearl. The pearl is composed of thin strata or coats which are easily removed without injuring those below which retain all their lustre, and pearls of a large size and perfect form, but discoloured, are bought at a low price in the hopes of their becoming valuable, which they sometimes do by removing one or more of the upper strata. The finest and what is considered as the true shape of the pearl is a perfect round of a pure clear and brilliant white colour free from every foulness, spot or stain, and the surface smooth and glossy as the natural polish that they have when taken cannot be improved or heightened by art. The shells being all examined and thrown away the water is drawn off and the pearls picked out from their mass of putridity, and being washed and bored are ready for sale in their full beauty and perfection without any further preparation being required.

The operation of boring the pearl is performed by the natives in the most dextrous manner and with the rudest and simplest instruments. A small block of wood of a conic form with the base uppermost, and three holes in the inverted summit to receive the same number of sticks broken from a tree or pulled from a hedge forms a tripod of a foot high, at which the workman sits upon his haunches, the plane of the inverted summit is cut into holes of various sizes to receive the pearls and measures about four inches in diameter. A well tempered needle fixed in a reed forms his auger, and a bit of bamboo with a few inches of common string a bow to give it play. The right knee advanced to a line with the tripod sustains a broken cocoanut shell containing some water from which the little finger of the right hand during the to and fro motion of the latter supplies the water required to temper the heat of the friction. §

\* It is now not believed, that the mere taking up of some pearl oysters from a bed, would cause those left untouched to die; for part of the bed of oysters not fished in 1829 was fished in 1830, and the oysters found wonderfully more rich in pearl. But if the oysters were actually torn from the rocks, and left on the bed, there is no doubt they would soon die. J. S.

† And by its byssus.

‡ The Oysters are left in heaps to putrify, and are not put into canoes to be washed until the meat is wholly decayed. Canoes or other vessels could not be found to contain the oysters of a fishery, except for the mere purpose of washing away the filth from them. J. S.

§ The top of the block of wood, which is supported on three legs, is indented with small holes of various sizes to receive the pearls, which are tightly forced in to be retained during the process of drilling. J. S.

The pearls are arranged by the native jewellers into seven classes distinguished by different names, from the perfect pearl to the most rugged and uneven, and this mode of arrangement is facilitated by all the pearls being put into and sifted through thin brass basons, the bottoms of which are perforated with round holes of different sizes in regular gradation from No. 1 to No. 7. Those pearls that wont pass through the holes in the bason No. 1 are the largest, and so in proportion as they wont sift through the holes in the intermediate basons to No. 7 and all those that pass through the very small holes in the last number are regarded as the refuse and seed pearl and are sold by weight, whilst those that are found in any of the seven basons are sold either in strings or separately according to their size, their colour or the demand of the market. This method of arranging the pearls in seven classes is also practised by the Arabians in their pearl fishery in the Persian Gulf, but whether they adopted it from the Cinghalese or they from the Arabians is uncertain.\*

The proportion of perfect pearls that is found is so inconsiderable, that notwithstanding the high price that they are sold at, they are estimated as constituting no more than one eighth part of the produce of the fishery. Those of an extraordinary size are seldom got as the three largest perfect pearls that have been found since the English commenced fishing, and which were all taken in the year 1797, did not exceed half an inch each in diameter.†

The modes of speculating in this strange kind of lottery are various and depend upon the wealth and the spirit of enterprize of the adventurers. As the Renter generally lets out part of the boats, the adventurers may either purchase them from him, or, if their funds wont admit of this, they can buy shares of boats from the boat holders or from the divers. They may also purchase pearls after they have been washed and bored, or buy the oysters as they come from the boats and before they have been examined. This last is in general the method followed by the poorest adventurers who constitute the most numerous proportion of the immense crowds attracted to the Fishery from all parts of India, to the amount it is calculated of near four hundred thousand, as they can purchase from one fanam's worth of oysters to any extent, but their funds for trying their good fortune seldom exceed five or ten pagodas, and it may be supposed they are in general unfortunate, as in all lotteries the loss constantly falls on the poorest class of speculators. But as it almost constantly happens in every fishery that some few of them on these slender capitals gain two or three hundred pagodas each, others are again tempted to return in the ensuing season in the sanguine hopes of experiencing the same good fortune. Various other methods of speculating besides these are followed, but it is impossible to detail them as they depend on the prices of the shares of the boats, of the oysters and of the pearls which constantly vary during the course of the fishery.

The daily average of the produce of the boats has varied considerably, in the three fisheries, that of the 1796 being estimated at (12,000) twelve thousand oysters per boat daily, in the year 1797 at (8,000) eight thousand, and in the year 1798 at (10,000) ten thousand. The average price at the two first fisheries was  $6\frac{1}{2}$  Pagodas for 1000 oysters, and at the last  $7\frac{1}{2}$  Pagodas for the same number.

The revenue received by the Madras Government from the three pearl fisheries amounted, by Mr. ANDREWS the Superintendent of the revenue's accounts to P. N. P. 810,295 8 41 as per table No. 1, ‡ on which sum it is estimated that on the same fisheries the Renter and

\* The present practice of classifying pearls is described in this work—Page 50.

† Pearls half an inch in diameter are not met with now. J. S.

‡ TABLE No. 1.

	P. N. P.	F.	C.
Revenue from the Pearl Fishery in 1796 .....	989	26	12 31.
ditto from ditto in 1797 .....	3306	20	4 74.
ditto from ditto in 1798 .....	3807	48	28 6.
Total amount of the Revenue from the Pearl Fisheries for three } years—Porte Nova Pagodas.....	810,295	8	41.

adventurers cleared each as in table No. 2 \* in which the fanams and cash in Mr. ANDREW'S account are not included. This calculation is however formed on the supposition that the Renter lets out all his boats; but it is well known that in all the fisheries he did not let out more than one third of the number and speculated with the rest, but taking it at the more moderate calculation of one half, which is certainly within bounds, the half the adventurers gain as stated in No. 2. ought to be subtracted and added to the Renter's profit as per table No. 3.† But as it must be considered that the Renter by the terms of his cowl, had the right of retaining all the best boats and divers, and as the gain of the adventurers in No. 2 is calculated on the produce that was received from the bad boats and divers, it may be reckoned that the Renter's proportion collected in the quickest sailing boats and by the best divers amounted to one third more, so that the real produce of the pearl fishery and the Renter's profits will be found to be nearly as stated in No. 4.‡

\* TABLE No. 2.

1796.		P. N. P.
Rent paid to Government.....		98926.
Premium at which the Renter sold the boats at fifty per cent profit on the rent.....	}	49463.
Gain of the Adventurers on the above sum at the com- puted profit for that year at 100 per Cent .....		148389.
Total amount of the Fishery in 1796.		296778.
1797.		P. N. P.
Rent paid to Government.....		330620.
Premium of the Renter 33½ per Cent .....		110203.
Gain of Adventurers 50 per Cent .....		220411.
Total amount of the Fishery in 1797.		661234.
1798.		
Rent paid to the Government.....		380748.
Premium of the Renter 25 per Cent .....		95187.
Gain of Adventurers— 25 per Cent .....		118983.
Total amount of the Fishery in 1798		594918.
Rent paid to Government for three years .....		810294.
Renter's profit for the three years .....		254853.
Gain of the Adventurers in three years .....		487783.
Total produce of the Pearl Fishery for the three years 1796, 1797 and 1798.....		1552930.

† TABLE No. 3.

	P. N. P.
Government Share in the three fisheries.....	810294.
Renter's supposed profit .....	498744.
Gain of the other Adventurers.....	243891.

Total produce of the three fisheries 1552930.

‡ TABLE No. 4.

	P. N. P. F. C.
Rent to Government.....	810294 0 0.
Renter's real profit .....	661338 15 40.
Adventurers' real gain .....	243891 0 40.
Real Total produce of the Pearl Banks in the years 1796, 1797 and 1798 .....	1715523 16 0.

From this sum of P. N. P. 810,294 arising to Government must be deducted the five per cent commission allowed to the Superintendent of the revenue and the assistant Collectors on this as well as every other branch of the revenue (except cinnamon) collected in Ceylon, and the expenses stated by Mr. ANDREWS as attending the management, as in No. 5,\* the clear balance to Government from the Pearl Fisheries is 742,929 21 36, so that the real profits of the Renter CANDAPAH CHITTY were only 81,591 5 7 less than the revenue received by Government.

In the memorial respecting the Pearl fishery sent to His Excellency the Governor by the Honorable George TURNOUR, Lieutenant in the 19th Foot, Commandant of Manar and generally employed in the command of the guard at the Pearl fishery, it is calculated that the Renter employed on his account two thirds of the boats used at the fishery, and the produce of the fishery is also stated at a considerably higher amount as in table No. 6.† than it has been done by the Superintendent of the revenue, so that on the same basis of calculation as in No. 4. the total and real produce of the pearl banks by Lieut. the Honble GEORGE TURNOUR's statement amounted as per table No. 7.‡ When from this sum of Porto Nova Pagodas 990,000 the commission to the Collectors and the expenses stated by Mr. ANDREWS is deducted it will appear by No. 8.§ that the Government actually received P. N. P. 16350 15 44 less from the fishery than the real profits of the Renter amounted to.

In consequence of the immense profits that had been gained by the Renter CANDAPAH CHITTY and the variety of abuses that had been found to arise from this mode of farming

\* TABLE No. 5.

Commission of 5 per cent on 810294 the amount of the Pearl Fisheries, to the Superintendent of the Revenue and to the Assistant Collectors of revenue .....	405141	8	0
Expenses by Mr. Andrews' statement attending the pearl fishery in 1796 .....	5203	4	52
Ditto in 1797 .....	1918	3	15
Ditto in 1798 .....	12729	17	57
Total of the Commission and other Expenses of the three fisheries .....	67364	23	44

† TABLE No. 6.

Revenue from the Pearl Fishery in 1796 .....	150000
Ditto from Ditto in 1797 .....	360000
Ditto from Ditto in 1798 .....	480000
Total amount of the Pearl Fisheries for three years by Lieut. Turnour's Statement .....	990000

‡ TABLE No. 7.

Rent to Government .....	990000
Renter's real profit .....	930000
Adventurers' real gain .....	205000
Real produce of the Pearl Banks in 1796-1797 and 1798 .....	2125000
	P. N. P.

§ TABLE No. 8.

Rent to Government .....	990,000
Commission to the superintendent and the Collector of the revenue on 990,000 at 5 per cent .....	49500
Expenses for the Fisheries as stated by Mr. Andrews .....	26850 15 44
	76,350 15 44
Clear produce to Government of the Pearl Banks .....	913,649 29 36
Real Profits of the Renter .....	930,000 0 0
Renter's Profit more than Government revenue .....	16,350 15 44

the Pearl Fishery, His Excellency the Governor determined to fish the Pearl banks in the year 1799 on account of Government, the boats to be disposed of by public auction to the highest bidder, who was to pay two thirds of the boats hire in advance, and the other third at the expiration of the first twenty days of the fishery, and the strictest impartiality was directed to be observed in the distribution of the good boats and divers, so that every adventurer might have a fair and equal chance of getting the best. In order that this plan might be properly conducted HUGH CLEGHORN Esq. Secretary to Government, JOHN McDOWALL Esq. Deputy Secretary, and Lieut. the Honble GEORGE TURNOUR were appointed Commissioners to superintend the Fishery, and the boats when I left Colombo on the 5th of March 1799 were by the reports received from them beginning to be disposed of by them at Arippeo at an average of 1920 Pagodas a boat which from the great number of adventurers repairing to and then at Arippeo there was reason to hope that the remainder would be disposed of at nearly the same rate; but estimating that the usual number of 300 boats employed at the Fishery were sold at an average of only P. N. P. 1700 per boat it would then afford the greatest revenue that Government has as yet received in any one year from the Pearl banks.\*

Besides an increase of revenue, this mode of conducting the Fishery will enable Government to ascertain the real produce of the Pearl Banks which it was always the interest of the Renter to conceal and at the same time tend to prevent the banks from being exhausted by more boats being employed than the Commissioners allowed, as from the number of the boats licensed to fish, and the names of the proprietors being now made known and fixed up for public information at the Cutcherry of the Commissioners it will evidently become the interest of all owners of boats and of every person concerned in them to prevent any one from fishing who has not permission for so doing, which in former fisheries it was almost impossible for the Superintendent of the revenue to cause to be done. Notwithstanding these and other advantages likely to result to Government from this change of system, I would not be surprised to find that for one or two fisheries it would not answer, as it will be the interest and consequently the endeavour of CANDAPPAH CHITTY and his family, and of all their adherents, to do every thing in their power to prevent it succeeding in the hopes of its reverting to the former method of being farmed; and as at present their influence must be considerable over all the boat proprietors and divers, their exertions and representations, and that dread of novelty and of innovation which is so prevalent amongst all natives of India may prevent many persons from speculating for some time at least in the fishery when conducted on the present plan, but every thing the most favourable may be expected from it when the adventurers will have obtained a more thorough knowledge of the fairness, the impartiality, and the liberal principles of Mr. NORTH's system and from the exertions and abilities of the Commissioners appointed to superintend its execution.

It was apprehended that by the fishery in the year 1799 and from the rapacious manner in which those of the years 1796—7 and 8 had been conducted that the Banks would have been so exhausted as to have required a respite for some years, but it appears from an accurate survey made by Mr. CLEGHORN and Lieut. the Honble GEORGE TURNOUR in October last that regular fisheries may be calculated upon to commence in the year 1802 and that the Banks of Chilaw may also be expected to furnish a fishery for next year, but this cannot be thoroughly ascertained till October next as the survey of those banks in the year 1798 was interrupted by some unusually windy weather.

Claims for a proportion of the produce of the Pearl banks have been made from various quarters, which it will become requisite for Government to decide upon. The principal one is by the Nabob of the Carnatic of one sixth, as Lord PARAMOUNT, and the others are of two boats on account of the Church† at Ramiseram, of four stones or  $\frac{4}{5}$  of a boat from JAARDAR

\* These expectations were not realized—the net proceeds of the fishery of 1799 was *Star* Pagodas 62,135. J. S.

† Hindoo Temple.

TALIEVAN Prince of the Parrawas or fishermen residing between Ramiseram and Tuticoreen, and of one fifth of a boat each to the Pilot and Arripannars, Ceylon fishermen who were employed to survey the banks and conduct the fishing boats to the places fixed upon to be fished. Other churches of less celebrity than that of Ramiseram also claim certain small rights, amongst which two may be mentioned whose demands are supported by grants engraved on plates of copper given to them by the Rajah of the opposite coast before the Mahomedan invasion of the Peninsula. The claim of the Nabob is that which appears the most unwarrantable as well as the most burthensome, but as those of the others seem better founded and are only to a trifling amount it may perhaps be prudent not to reject them as the influence of many of the claimants over the divers and fishermen is very considerable.

Some small vessels well manned and armed with a few guns will be required to be constantly employed at all seasons of the year to prevent the Pearl Banks from being plundered and disturbed, and to guard the fishery from being interrupted or molested by any French cruizers that might run up the Gulf of Manar, and it will also be necessary to take some steps to obviate the inconveniences that may hereafter result from many of the Arripannars and divers residing during the greatest part of the year on the Coromandel Coast, and being perhaps prevented from coming to the Fishery at the proper season by the jealousy or discontent of the JAARDAR TALIEVAN under whose authority they now are, which might be done by inducing them to settle near Aripipo, by granting them lands free of all taxes for some years, by an allowance of a certain quantity of paddy to each family until the ground was cleared and cultivated, and by facilitating the progress of agriculture in that part of the country by repairing an old ruined tank near Manar. But His Excellency the Governor will be better able to determine upon and arrange all those matters from the information that he will receive in his visit to the Fishery on his way to Madras.

The total produce of the Pearl Banks may henceforward, calculating from the year 1802 be estimated as forming a clear Revenue to Government of three lacks of Star Pagodas, or Rix Drs. 1,200,000,\* as the expenses of management will be included under the head of civil charges.

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## AN ACCOUNT OF THE PEARL FISHERY IN THE GULF OF MANAR.

IN MARCH AND APRIL 1797.

BY HENRY J. LEBECK Esq.

COMMUNICATED BY DOCTOR ROXBURGH.

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From the accounts of the former Pearl fisheries at *Ceylon*, it will be found, that none have ever been so productive as this year's. It was generally supposed that the renter would be infallibly ruined, as the sum he paid for the present fishery was thought exorbitant, when compared with what had been formerly given; but this conjecture, in the event, appeared ill-founded, as it proved extremely profitable and lucrative.

The farmer this time was a *Tamul* Merchant, who for the privilege of fishing with more than the usual number of donies, or boats, paid between two and three hundred thousand *Port-novo* pagodas; a sum nearly double the usual rent.

These boats he farmed out again to individuals in the best manner he could; but for want of a sufficient number of divers, some of them could not be employed.

The fishing, which commonly began about the middle of *February*, if wind and weather allowed, was this year, for various reasons, delayed till the end of the month; yet so favourable was the weather, that the renter was able to take advantage of the permission granted by the agreement, to fish a little longer than the usual period of thirty days.

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\* £ 120,000. The Rix Dollar in those days being considered equivalent to two Shillings. J. S.

The fishery cannot well be continued after the setting in of the southern monsoon, which usually happens about the 15th of *April*, as, after that time, the boats would not be able to reach the pearl banks : and the water being then so troubled by heavy seas, diving would be impracticable; in addition to which, the sea-weed, a species of *Sucus*, driven in by the southerly wind, and which spreads to a considerable distance from the shore, would be an impediment.

Many of the divers, being Roman Catholics, leave the fishery on *Sundays*, to attend divine service in their church at *Aripoo*, but if either a *Mahomedan* or *Hindoo* festival happens during the fishing days, or if it is interrupted by stormy weather, or any other accident, this lost time is made up by obliging the Catholics to work on *Sundays*.

The fear of sharks, as we shall see hereafter, is also another cause of interruption. These, amongst some others, are the reasons that out of two months, (from February till April,) seldom more than thirty days can be employed in the fishery.

As this time would be insufficient to fish all the banks, (each of which has its appropriate name, both in Dutch and Tamil,) it is carried on for three or four successive years, and a new contract annually made, till the whole banks have been fished, after which they are left to recover.

The length of time required for this purpose, or from one general fishing to another, has not yet been exactly determined; it was, therefore, a practice to depute some persons to visit the banks annually, and to give their opinions, whether a fishery might be undertaken with any degree of success.\*

From various accounts, which I have collected from good authority, and the experience of those who assisted at such examinations, I conjecture, that every seven years such a general fishery could be attempted with advantage, as this interval seems sufficient for the pearl shells to attain their growth. I am also confirmed in this opinion, by a report made, by a Dutch Governor at *Jafna*, of all the fisheries that have been undertaken at *Ceylon* since 1722; a translation of which is to be found in *WOLFE'S Travels in Ceylon*. But the ruinous condition in which the divers leave the pearl banks at each fishery, by attending only to the profit of individuals, and not to that of the public, is one great cause, that it requires twice the above mentioned space of time, and sometimes longer, for rendering the fishing productive. They do not pay the least attention to spare the young and immature shells, that contain no pearl; heaps of them are seen thrown out of the boats as useless, on the beach between *Manar*† and *Aripoo*: if these had been suffered to remain in their native beds, they would, no doubt, have produced many fine pearls. It might therefore, be advisable, to oblige the boat people to throw them into the sea again before the boats leave the bank. If this circumspection, in sparing the small pearl shells, to perpetuate the breed, was always observed, succeeding fisheries might be expected sooner, and with still greater success: but the neglect of this simple precaution will, I fear, be attended with similar fatal consequences here, as have already happened to the pearl banks on the Coast of *Persia*, *South America*, and *Sweden*, where the fisheries are by no means so profitable at present as they were formerly.

Another cause of the destruction of numbers of both old and young pearl shells, is the anchoring of so many boats on the banks, almost all of which use differently formed, clumsy, heavy, wooden anchors, large stones &c. &c. If this evil cannot be entirely prevented, it might, at least, be greatly lessened, by obliging them all to use anchors of a particular sort, and less destructive.

This season the *Seewel* Bank only was fished, which lies above twenty miles to the westward of *Aripoo*, opposite to the fresh water rivers of *Moosalee* *Modragam* and *Pomparipoo*. It has been observed, that the pearls on the north-west part of this bank, which consists of rock, are of a clearer water than those found on the South-east, nearest the shore, growing on corals and sand.

\* A gentleman, who assisted at one of the last visits being an Engineer, drew a chart of the banks, by which their situation and size are now better known than formerly.

† *Manara*, properly *Manar*, is a *Tamil* word and signifies a sandy river, from the shallowness of the sea at that place.



*Condatchy* is situated in a bay forming nearly a half moon, and in a waste, sandy district, with some miserable huts built on it. The water is bad and brackish; and the soil produces only a few, widely scattered, stunted trees and bushes. Those persons who remain here during the fishery, are obliged to get their water for drinking from *Aripoo*, a village with a small old fort, lying about four miles to the northward. Tigers, porcupines, wild hogs, pangolines, or the *Ceylon Armadillos*, are, amongst other quadrupeds, here common. Of amphibibia, there are Tortoises, especially the *testudo geometrica*, and various kinds of snakes. A Conchologist meets here with a large field for his enquiries. The presents which I made to the people employed in the fishery, to encourage them to collect all sorts of shells which the divers bring on shore, produced but little effect; as they were too much taken up in searching after the Mother-of-pearl shells to pay attention to any other object. However, my endeavours were not entirely useless: I will specify here a few of the number I collected during my stay; different kinds of *pectines*,\* *palium porphyreum*, *solen radiatus*,† *Venus Castrensis*, Linn.‡, *Astrea hyotis*§, *Ostr. Forskolii*, *Ostr. Malleus*⁴, *mytilus hirundo*, Linn.⁵, *Spondilus crocius*, *pholas pusillus*, Linn.⁶, *mitra episcopalis*, Linn. *lepas striata*, Pennanti, (vide zool. Brit.) *patella tricarinata*, Linn. *bulia perfecta maculata*⁷, *harpa nobilis*, *porcellana salita*, Rumph.⁸. *Strombus scorpio*, and others of inferior kinds. Amongst the *zoophytes*, many valuable species of *spongia*, *corallina*, *satularia*, &c. a great variety of sea stars, and other marine productions, that cannot be preserved in spirits, but should be described on the spot. These, as well as the description of the different animals inhabiting the shells, are the more worthy of our attention, and deserve farther investigation, as we are yet very deficient in this branch of natural history.

During the fishing season, the desert, barren place, *Condatchy*, offers to our view a scene equally novel and astonishing. A heterogeneous mixture of thousands of people, of different colours, countries, casts, and occupations; the number of tents and huts, erected on the sea shore, with their shops or bazars before each of them; and the many boats returning on shore in the afternoon, generally richly laden: all together form a spectacle entirely new to an *European* eye. Each owner runs to his respective boat as soon as it reaches the shore, in hopes of finding it fraught with immense treasure, which is often much greater in imagination than in the shell; and though he is disappointed one day, he relies with greater certainty on the next, looking forward to the fortune promised him by his stars, as he thinks it impossible for the astrological predictions of his *Brähmen* to err.

To prevent riot and disorder, an officer with a party of *Malays* is stationed here. They occupy a large square, where they have a field piece, and a flag staff for signals.

Here and there you meet with brokers, jewellers, and merchants of all descriptions; also suttlers offering provisions and other articles; to gratify the sensual appetite and luxury. But by far the greater number are occupied with the pearls. Some are busily employed in assorting them, for which purpose they make use of small brass plates, perforated with holes of different sizes; others are weighing, and offering them to the purchaser; while others are drilling or boring them, which they perform for a trifle.

The instrument these people carry about with them for this purpose, is of a very simple construction, but requires much skill and exercise to use it; it is made in the following manner: the principal part consists of a piece of soft wood, of an obtuse, inverted, conical shape, about six inches high, and four in diameter, in its plain surface; this is supported by three wooden feet, each of which is more than a foot in length. Upon the upper flat part of this machine are holes, or pits, for the larger pearls; and the smaller ones are beat in with a wooden hammer. On the right side of this stool, half a cocoanut shell is fastened, which is

\* Scallops. † Radiated razor shell. ‡ Alpha Cockle. § Double cocks-comb.

⁴ Hammer oyster; these were pretty large, but many broken, and some covered by a calcareous crust. It is very probable that, among these, there may be some precious white ones. ⁵ Swallow muscle. ⁶ The wood piercer.

⁷ Diving snail, (Grew, Mus.) ⁸ Salt-coury, Kl.

filled with water. The drilling instruments are iron spindles, of various sizes, adapted to the different dimensions of the pearls, which are turned round in a wooden head by a bow. The pearls being placed on the flat surface of the inverted cone, as already mentioned, the operator sitting on a mat, presses on the wooden head of his instrument with the left hand, while, with his right, he moves the bow which turns round the moveable part of the drill; at the same time, he moistens the pearl, occasionally dipping the little finger of the same hand into the water of the cocoanut shell, with a dexterity that can only be attained by constant practice.

Amongst the crowd are found vagabonds of every description, such as *Pandarams*, *Andee* or *Hindu* monks, fakirs, beggars, and the like, who are impertinently troublesome. Two of these wretches particularly attracted the attention of the mob, though their superstitious penance must have disgusted a man of the least reflection: one had a gridiron, of one and a half foot long, and the same in breadth, fastened round his neck, with which he always walked about; nor did he take it off either when eating or sleeping: the other had fastened round that member, which decency forbids me to mention, a brass ring, and fixed to it was a chain, of a fathom in length, trailing on the ground; the links of this chain were as thick as a man's finger, and the whole was exhibited in a most scandalous manner.

The pestilential smell occasioned by the numbers of putrifying pearl fishes, renders the atmosphere of *Condatchy* so insufferably offensive when the south west wind blows, that it sensibly affects the olfactory nerves of any one unaccustomed to such cadaverous smells. This putrefaction generates immense numbers of worms, flies, moschettoes, and other vermin; altogether forming a scene strongly displeasing to the senses.

Those who are not provided with a sufficient stock of money, suffer great hardships, as not only all kinds of provisions are very dear, but even every drop of good water must be paid for. Those who drink the brackish water of this place, are often attacked by sickness. It may easily be conceived, what an effect the extreme heat of the day, the cold of the night, the heavy dews, and the putrid smell, must have on weak constitutions. It is, therefore, no wonder that of those who fall sick, many die; and many more return home with fevers, fluxes, or other equally fatal disorders.

The many disappointments usually experienced by the lower classes of men in particular, make them often repent of their coming here. They are often ruined, as they risk all they are worth to purchase pearl shells; however, there are many instances of their making a fortune beyond all expectation. A particular circumstance of this kind fell within my own observation: a day labourer bought three oysters\* for a copper fanam, (about the value of two pence,) and was so fortunate as to find one of the largest pearls which the fishery produced this season.

The donies appointed for the fishery are not all procured at *Ceylon*; many come from the Coasts of *Coromandel* and *Malabar*, each of which has its distinguishing number. About ten o'clock at night, a gun is fired as a signal, when they sail from *Condatchy* with an easterly or land wind, under the direction of a pilot. If the wind continues fair, they reach the bank before day, and begin diving at sun rise, which they continue till the west or sea breeze sets in, with which they return. The moment they appear in sight, the colours are hoisted at the flagstaff; and in the afternoon they come to an anchor, so that the owners of the boats are thereby enabled to get their cargoes out before night, which may amount to 30,000 oysters, if the divers have been active and successful.

Each boat carries twenty one men, and five heavy diving stones for the use of ten divers, who are called, in *Tamul*, *kooly kärer*: the rest of the crew consists of a tandel, or head boatman, and ten rowers, who assist in lifting up the divers and their shells.

The diving-stone is a piece of coarse granite, a foot long, six inches thick, and of a pyramidal shape, rounded at the top and bottom. A large hair rope is put through a hole in

\* The *East India* pearl shell is well known to be the *Matrix perlarum* (mother of pearl) of RUMPHIUS, or the *Mytilus margaritiferus* of LINNÆUS; consequently the general term pearl oyster must be erroneous; however, as it has long been in common use, I hope to be excused for continuing it.

the top. Some of the divers use another kind of stone, shaped like a half moon, to bind round their belly, so that their feet may be free. At present these are articles of trade at *Condatchy*. The most common or pyramidical stone, generally weighs about thirty pounds. If a boat has more than five of them, the crew are either corporally punished or fined.

The diving, both at *Ceylon* and at *Tuticorin*, is not attended with so many difficulties as authors imagine. The divers, consisting of different casts and religions, (though chiefly of *Parrawer*\* and *Musselmans*;) neither make their bodies smooth with oil; nor do they stop their ears, mouths, or noses, with any thing, to prevent the entrance of salt water. They are ignorant of the utility of diving bells, bladders, and double flexible pipes. According to the injunctions of the shark conjurer, they use no food while at work, nor till they return on shore, and have bathed themselves in fresh water. These *Indians*, accustomed to dive from their earliest infancy, fearlessly descend to the bottom, in a depth of from five to ten fathoms, in search of treasures. By two cords, a diving stone, and a net, are connected with the boat. The diver, putting the toes of his right foot on the hair rope of the diving stone, and those of his left on the net, seizes the two cords with one hand, and shutting his nostrils with the other, plunges into the water. On reaching the bottom, he hangs the net round his neck, and collects into it the pearl shells as fast as possible, during the time he finds himself able to remain under water, which usually is about two minutes. He then resumes his former posture, and making a signal, by pulling the cords, he is immediately lifted into the boat. On emerging from the sea, he discharges a quantity of water from his mouth and nose; and those who have not been long inured to diving, frequently discharge some blood; but this does not prevent them from diving again in their turn. When the first five divers come up, and are respiring, the other five are going down with the same stones. Each brings up about one hundred oysters in his net, and if not interrupted by any accident, may make fifty trips in a forenoon. They and the boats' crew get generally from the owner, instead of money, a fourth of the quantity which they bring on shore; but some are paid in cash, according to agreement.

The most skilful divers come from *Collish*, on the coast of *Malabar*: some of them are so much exercised in the art, as to be able to perform it without the assistance of the usual weight; and for a handsome reward, will remain under water for the space of seven minutes: this I saw performed by a *Caffry* boy, belonging to a citizen at *Karical*, who had often frequented the fisheries of these banks. Though Dr. HALLEY deems this impossible, daily experience convinces us, that by long practice, any man may bring himself to remain under water above a couple of minutes. How much the inhabitants of the South sea Islands distinguish themselves in diving, we learn from several accounts; and who will not be surprised at the wonderful *Sicilian* diver, NICHOLAS, surnamed the FISH.†

Every one of the divers, and even the most expert, entertain a great dread of the sharks, and will not, on any account, descend until the conjurer has performed his ceremonies. This prejudice is so deeply rooted in their minds, that the Government was obliged to keep two such conjurers always in their pay, to remove the fears of their divers. Thirteen of these men were now at the fishery from *Ceylon* and the Coast, to profit by the superstitious folly of these deluded people. They are called in *Tamul*, *Pillál Kadtár*; which signifies one who binds the sharks, and prevents them from doing mischief.

The manner of enchanting consists in a number of prayers learned by heart, that nobody, probably not even the conjurer himself, understands, which he, standing on the shore, continues muttering and grumbling from sun-rise until the boats return: during this period, they are obliged to abstain from food and sleep, otherwise their prayers would have no avail: they are, however, allowed to drink, which privilege they indulge in a high degree, and are

\* Fishermen of the Catholic religion.

† According to KIRCHER, he fell a victim amongst the *Polypes* in the gulph of *Charybdis*, on his plunging, for the second time, in its dangerous whirlpool, both to satisfy the curiosity of his King, Frederic, and his inclination for wealth. I will not pretend to determine how far this account has been exaggerated.

frequently so giddy, as to be rendered very unfit for devotion. Some of the conjurers accompany the divers in their boats, which pleases them very much, as they have their protectors near at hand. Nevertheless, I was told, that, in one of the preceding fisheries, a diver lost his leg by a shark; and when the head conjurer was called to an account for the accident, he replied, that an old witch had just come from the coast, who, from envy and malice, had caused this disaster, by a counter-conjuration, which made fruitless his skill, and of which he was informed too late; but he afterwards shewed his superiority, by enchanting the poor sharks so effectually, that, though they appeared in the midst of the divers, they were unable to open their mouths. During my stay at *Condatchy*, no accident of this kind happened. If a shark is seen, the divers immediately make a signal, which, on perceiving, all the boats return instantly. A diver who trod upon a hammer oyster, and was somewhat wounded, thought he was bit by a shark, consequently made the usual signal, which caused many boats to return; for which mistake he was afterwards punished.

The owners of the boats \* sometimes sell their oysters, and at other times open them on their own account. In the latter case, some put them on mats in a square, surrounded with a fence, others dig holes of almost a foot deep, and throw them <sup>in</sup> till the animal dies; after which they open the shells, and take out the pearls with more ease. Even these squares and holes are sold by auction after the fishery is finished, as pearls often remain there, mixed with the sand.

In spite of every care, tricks in picking out the pearls from the oysters can hardly be prevented. In this the natives are extremely dexterous. The following is one mode they put in practice to effect their purpose: when a boat owner employs a number of hired people to collect pearls, he places over them an inspector of his own, in whom he can confide: these hirelings previously agree that one of them shall play the part of a thief, and bear the punishment, to give his comrades an opportunity of pilfering. If one of the gang happens to meet with a large pearl, he makes a sign to his accomplice, who instantly conveys away one of small value, purposely in such a manner as to attract notice. On this the Inspector, and the rest of the men, take the pearl from him: he is then punished, and turned out of their company. In the mean time, while he is making a dreadful uproar, the real thief secures the valuable pearl, and afterwards the booty is shared with him who suffered for them all. Besides tricks like these, the boat owners, and purchasers, often loose many of the best pearls while the dony is returning from the bank; for, as long as the animal is alive, and untouched, the shells are frequently open near an inch; and if any of them contain a large pearl, it is easily discovered and taken out by means of a small piece of stiff grass, or bit of stick, without hurting the pearl fish. In this practice they are extremely expert. Some of them were discovered whilst I was there, and received their due punishment.

GMELIN asks if the animal of the *mytilus margaritiferus* is an *ascidia*? See LINN. Syst. Nat. tom. I. p. vi. 3350. This induces me to believe that it has never yet been accurately described. It does not resemble the *Ascidia* of LINNÆUS, and may, perhaps, form a new genus. It is fastened to the upper and lower shells by two white flat pieces of muscular substance, which are called by *Houttuin*,† *ears*, and extend about two inches from the thick part of the body, growing gradually thinner. The extremity of each *ear* lies loose, and is surrounded by a double brown fringed line. These lie almost the third of an inch from the outer part of the shell, and are continually moved by the animal. Next to these, above and below, are situated two other double fringed moveable substances, like the bronchiæ of a fish. These *ears* and *fringes* are joined to a cylindrical piece of flesh, of the size of a man's thumb, which is harder, and of a more muscular nature, than the rest of the body. It lies about the centre of the shells, and is firmly attached to the middle of each. This, in fact, is

\* These are the individuals who farm one or more boats from the renter; and though they are in possession of them only during the fishery, they are commonly called the owners of the Boats.

† Vide Houtt. Nat. Hist. Vol. I. p. xv. p. 381. seq.

that part of the pearl fish which serves to open and shut the shells. Where this column is fastened, we find on the flesh deep impressions, and on the shell various nodes of round or oblong forms, like imperfect pearls. Between this part and the hinge (*cardo*) lies the principal body of the animal, separated from the rest and shaped like a bag. The mouth is near the hinge of the shell, enveloped in a veil, and has a double slap or lip on each side; from thence we observe the throat (*æso-phagus*) descending like a thread to the stomach. Close to the mouth there is a carved brownish tongue, half an inch in length, with an obtuse point; on the concave side of this descends a furrow, which the animal opens and shuts, and probably uses to convey food to its mouth.\* Near its middle are two bluish spots, which seem to be the eyes. In a pretty deep hole near the base of the tongue, lies the beard (*byssus*,) fastened by two fleshy roots, and consisting of almost one hundred fibres, each an inch long, of a dark green colour, with a metallic lustre; they are undivided, parallel, and flattened. In general, the *byssus* is more than three quarters of an inch without the cleft, (*rima*;) but if the animal is disturbed, it contracts it considerably. The top of each of these threads terminates in a circular gland, or head, like the *stigma* of many plants. With this *byssus* they fasten themselves to rocks, corals, and other solid bodies; by it the young pearl fish cling to the old ones; and with it the animal procures its food; by extending and contracting it at pleasure. Small shell fish, on which they partly live, are often found clinging to the former. The stomach lies close to the root of the beard, and has, on its lower side, a protracted obtuse point. Above the stomach are two small red bodies, like lungs; and from the stomach goes a long channel, or gut, which takes a circuit round the muscular column above mentioned, and ends in the anus, which lies opposite to the mouth, and is covered with a small thin leaf, like a slap. Though the natives pretend to distinguish the sexes, by the appearance of the shell, I could not find any genitalia. The large flat ones they call males; and those that are thick, concave, and vaulted they call females, or *pedochippy*; but on a close inspection, I could not observe any visible sexual difference.

It is remarkable that some of these animals are as red as blood, and that the inside of the shell has the same colour, with the usual pearly lustre; and though my servants found a reddish pearl in an oyster of this colour, yet such an event is very rare. The divers attribute this redness to the sickness of the pearl fish; though it is most probable that they had it from their first existence. In the shade they will live twenty four hours after being taken out of the water. This animal is eaten by the lower class of *Indians*, either fresh in their curries, or cured by drying; in which state they are exported to the coast; though I do not think them by any means palatable.

Within a mother-of-pearl shell I found thirteen *murices nudati*, (vide CHERNITZ's New System, Cabt. Vol. XI. Tab. 192, F. 1851 and 1852) the largest of which was three quarters of an inch long; but as many of them were putrid, and the pearl fish itself dead, I could not ascertain whether they had crept in as enemies, or were drawn in by the animal itself. At any rate, turtles and crabs are inimical to these animals, and a small living crab was found in one of them.

The pearls are only in the softer part of the animal, and never in that firm muscular column above mentioned. We find them in general near the earth, and on both sides of the mouth. The natives entertain the same foolish opinion, concerning the formation of the pearl which the ancients did. They suppose them formed from dew-drops in connection with sun-beams. A *Brâhmen* informed me that it was recorded in one of his *Sanscrit* books, that the pearls are formed in the month of *May*, at the appearance of the *Sooatee* star, (one of their twenty seven constellations,) when the oysters come up to the surface of the water to catch the drops of rain.

\* The depth at which the pearl fish generally is to be found, hindered me from paying any attention to the locomotive power, which I have not the least doubt it possesses, using for this purpose its tongue. This conjecture is strengthened by the accurate observations made on *muscles*, by the celebrated REAUMUR, in which he found that this member serves them as a leg or arm, to move from one place to another. Though the divers are very ignorant with regard to the economy of the pearl fish, this changing of habitation has been long since observed by them. They allege, that it alters its abode when disturbed by an enemy, or in search of food. In the former case, they say, it descends from the summit of the bank to its declivity.

One of the most celebrated conchologists\* supposes, that the pearl is formed by the oyster in order to defend itself from the attacks of the *pholades* and *boreworms*. But we may be assured that in this supposition he mistakes; for, although these animals often penetrate the lower layers of the pearl shell, and there occasion hollow nodes, yet, on examination, it will be found, that they are never able to pierce the firm layer with which the inside of the shell is lined. How then can the pearls be formed as a defence against exterior worms, when, even on shells that contain them, no worm holes are to be seen? It is, therefore, more probable, these worms take up their habitations in the nodes, in order to protect themselves from the attacks of an enemy, than that they are capable of preying on an animal so well defended as the pearl fish is. It is unnecessary to repeat the various opinions and hypothesis of other modern authors; it is much easier to criticise them, than to substitute in their place a more rational theory. That of REAUMUR mentioned in the Memoirs of the *French Academy* for 1712, is the most probable, viz., that the pearls are formed like bezoars, and other stones, in different animals, and are apparently the effects of a disease. In short, it is very evident, that the pearl is formed by an extravasation of a glutinous juice, either within the body, or on the surface of the animal: the former case is the most common. Between one and two hundred pearls have been found within one oyster. Such extravasations may be caused by heterogeneous bodies, such as sand, coming in with the food, which the animal, to prevent disagreeable friction, covers with its glutinous matter, and which as it is successively secreted, forms many regular lamellæ, in the manner of the coats of an onion, or like different strata of bezoars, only much thinner: this is probable; for if we cut through the centre of a pearl, we often find a foreign particle, which ought to be considered as the nucleus, or primary cause of its formation. The loose pearls may originally have been produced within the body, and on their increase may have separated and fallen into the cavity of the shell. Those compact ones, fixed to the shells, seem to be produced by similar extravasation, occasioned by the friction of some roughness on the inside of the shell. These and the pearl-like nodes have a different aspect from the pearls, and are of a darker and bluer colour. In one of the former I found a pretty large, true oval pearl, of a very clear water; while the node itself was of a dark bluish colour. The yellow or gold-coloured pearl, is the most esteemed by the natives; some have a bright red lustre; others are grey or blackish, without any shining appearance, and of no value. Sometimes when the grey lamella of a pearl is taken off, under it is found a beautiful genuine one; but it oftener happens, that after having separated the first coat, you find a worthless impure pearl. I tried several of them, taking one lamella off after another, and found clear and impure by turns; and in an impure pearl I met with one of a clear water, though in the centre of all I found a foreign particle. The largest and most perfect pearl which I saw, during my stay at *Condatchy*, was about the size of a small pistol bullet; though I have been told since my departure, many others of the same size have been found. The spotted and irregular ones are sold cheap, and are chiefly used by the native physicians as an ingredient in their medicines.

We may judge with greater or lesser probability by the appearance of the pearl-shells, whether they contain pearls or not. Those that have a thick calcareous crust upon them, to which *serpulæ* (sea tubes) *Tubuli marini irregulariter intorti*, *Crista-gali Chamar laxuras*, *Lepas tintinabulum*, *Madreporee*, *Millipore*, *Cellipore*, *Gorgontæ*, *Spongix*, and other zoophytes are fastened, have arrived at their full growth and commonly contain the best pearls; but those that appear smooth, contain either none, or small ones only.

Were a naturalist to make an excursion for a few months to *Manaar*, the small island near *Jafna*, and the adjacent coast, he would discover many natural curiosities still buried in obscurity, or that have never been accurately described.

Indeed, no place in the *East Indies* abounds more with rare shells than these: for there they remain undisturbed, by being sheltered from turbulent seas, and the fury of the surf.

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\* The Rev. Mr. Chemnitz at Copenhagen.

I will just name a few of them; viz. *Tellina foliaca*, LINN.\* *Tell*, *Spenglerii*, *Arca culculata*†, *Arca Noë*, *folen anatinus*, LINN. *Ostrea Isogomum*, *Terebullum*, *albidum*, *striatum*, *Turbo scalaris*‡, *Bula vola*, LINN||. *Vexillum ingritarum*. &c. Amongst the beautiful conc shells; *Conus thalassiarachus*, *Anglicanus cullatus*§, *amadis thassiarachus*, *congeneralcis*, LINN. *c. capitaneus*\*\*<sup>††</sup>, *c. miles*††, *c. stercus muscarum*, *c. reteareum*, *c. glaucus*|||, *c. cereola*, *regia corona murus lapidius*, *canda erwenia societas cordium*. There are many others besides those already mentioned, equally valuable and curious.

The great success of the Rev. Doctor JOHN in conchology, when at *Tuticorin*, assisted by G. ANGELBECK, with a boat and divers, and the capital collections made by his agents, whom he afterwards sent there with the necessary instructions and apparatus, may be seen in CHEMNITZ's elegant cabinet of shells, in 4to. (with illuminated plates); and how many new species of Zoophytes he discovered, we learn from another German work by ESPEER, at *Erlangen*, the third volume of which is nearly finished.

Colombo Marandahn July 16.—1838.

SIR,

Referring to your letter of the 23rd March, I have now the honor to submit a Report on the claims of certain Indian Temples to employ boats, free of the payment of purchase money, at the Pearl Fisheries of this Island, and in doing so, I must commence by requesting that you will assure the Right Hon'ble the Governor that I am deeply sensible of the honor conferred by his selection of me for this duty, and that I have endeavoured to perform the task with the diligence and zeal for which he has kindly given me credit.

The voluminous appendices§§ which accompany this Report might render almost superfluous my entering into a detailed statement of the acquisition of the Pearl Banks by the Dutch, the nature of the claims of the Indian chiefs and Temples, and the manner in which their claims were (in my opinion, most erroneously) admitted by the first English Government of this Island. Yet as these papers are to be placed before the Executive Council, and are so voluminous as to require more time than can perhaps readily be devoted to them, I have thought it necessary to lay as succinctly as possible before His Excellency the conclusions to which I have arrived, after the perusal of almost every document on the subject which I could find among the Dutch Records; and with the same view, namely of enabling the members of the Executive to come more speedily than they otherwise could, to the decision required of them, in addition to the copious extracts which I herewith forward, I have formed from them such selections as more strikingly bear upon the subject, and have underlined the portions of those selections to which I desire most particularly to call attention. I have also the honor to return the volume of Official correspondence transmitted to me with your letter of the 23rd. March, with a few analytical remarks on some parts of its contents.

I am not aware that there exist any records of the Portuguese Government in this Island; had that been the case, I should have been anxious to trace the state of our Pearl fisheries at the time when a European nation first held sway here; yet, in some degree to supply the deficiency, I have taken from Ribeyro's History of Ceylon his description of the Fishery at Condatchy, with which document my second volume of Extracts commences—the first being entirely taken up with a narrative of the war between the Dutch and the Naick of Madura in 1669, which embraces the history of the Parruas and Moors, two races by whose assistance the Fisheries were mainly conducted. The same paper describes fully the origin of the Establishment of the Portuguese on the Coast of Madura, and it will thence be seen that they "kept for themselves the *pearl fisheries*, the Sovereignty over the Parruas, their villages and

\* The golden tong. † Mo. nkscape. ‡ Royal stair case. || Weaver's shuttle. § Red English Admiral

\*\* Green stamper. †† Great sand stamper. ||| Caps. Gottw.

§§ The appendices and extracts alluded to in this report are not printed.

"harbours, whilst the Naick, who had been a subject of the King of the Carnatic, made himself master at the same time of the lands about Madura, and, in a short time afterwards, of all the lower Countries from Cape Comorin to Tanjore, expelling and rooting out all the princes and land-proprietors, who were living and reigning there."

The Netherlands East India Company, having obtained possession of some places on Ceylon, first entered into a trading treaty with the Naick in 1664; but it was not till 1658 that they became possessed of Tuticoryn, which they took by force of arms from the Portuguese and Parruas. By this success the Dutch company succeeded to the rights, previously possessed by the Portuguese, "over the Coast, as well as to their authority over the sea-ports, the Christians, the *Pearl fisheries*, and all thereunto appertaining; in fact to all that the Parruas first had, and the Priests and Portuguese afterwards possessed." The Parruas became the Company's subjects "and were most especially bound to assist them in all Pearl fisheries," and a treaty concluded between the Naick of Madura and the Governor VANDER MEYDEN in 1660 placed the Parruas and all other Christians in subjection to the Dutch Company.

In 1663, it appears that the Armane, the Theuver and the Head Moor of Cailpatnam had a certain number of boats free in the Tuticoryn fishery, but it is added "if any other party claims besides these, it is without any right or authority to do so." At that time the Dutch had not yet tried the Manaar Banks, nor did any fishery take place at Aripo till 1667—8. The second fishery occurred in 1669, the third in 1691. I have been able to add a list of the 385½ free stones admitted at this latter fishery. They include 96½ for the Prince of Madura, 59 for the Theuver, and the remainder for the several headmen of the divers—the value of these 385½ stones is reckoned at £530.

In 1694, the number of free stones was 389½, valued at £660, and from the Report made by the Commissioners of that fishery to the Ceylon Government, it appears that "the Agents of the Naick and Theuver represented that they ought to have some stones free for the benefit of the Pagoda at Ramenacoil, and the Theuver said this was a very ancient custom, and pretended that the Portuguese always granted 12 boats," but the Commissioners add "as no precedent of this was to be found the request was politely rejected." The Agents for the same princes preferred a similar request in the following year, but with no better success; it was refused "as a matter fallen into disuse." These are the first instances in which I find any mention made of the Temples, nor was the request repeated till 1699 when the Agents who were sent by the Dutch to the Court of the Catta-Theuver, to settle the terms of a Commercial treaty, having for its principal object the obtaining of a monopoly of the Cloth trade in Madura, were solicited to induce "the Governor to grant 20 free stones for the profit of the pagoda at Ramenacoil in every pearl fishery, in the same manner as it had enjoyed them in the time of the Portuguese." But those Agents, not having powers to grant this favour, referred the applicant to the Governor De HEERE. The Theuver accordingly presented his request through the Commissioners of the Fishery of 1699, who obtained the following reply: "We cannot agree to grant to the Pagoda at Ramenacoil 27 stones gratis, as is said to have been the custom in the time of the Portuguese; no such practice having either existed at that period, or since our possession. If any thing were to be spared or presented, it would be better to bestow it on the Leper hospital, now about to be erected here for hundreds of human beings suffering under affliction, than on a heathen pagoda." The request is more courteously, but not less firmly rejected in a reply given to the Theuver himself.

In 1722, Governor J. A. RUMPF asserts the Dutch Company's Sovereignty over the banks from Cape Comorin, North, to Negombo, South, and, in his instructions to the Commandant of Jaffna, adds, "as to the Theuver's request of 27 free stones for the Pagoda of Ramenacoil, His Excellency may give as much as he pleases from those 60 stones granted to him, or from the valy which he receives from his own subjects."

The last Fishery which took place in Aumane, or on account of the Government, was in 1732. Up to that date 96½ free stones had been conceded to the Naick of Madura, and 60



to the Theuver, and certain less numbers to the various Pattangatyns or headmen of the several races of divers employed. The object of these concessions had principally been that no obstacle might be raised to prevent the Boats and Divers resorting freely to the banks, as without their aid the Fisheries could not take place. In 1740, however, Governor VAN IMHOFF, on quitting Ceylon, left a memoir for the instruction and guidance of his successor, which included remarks on the Pearl fisheries of the Island, doubting how far they really gave any profit to the Company, or whether that profit was not overbalanced by disadvantages, which had not been taken into account.

On becoming Governor General of Netherlands India in 1744, M. VAN IMHOFF called particular attention to that memoir, and desired to be informed whether it would not be advisable to discontinue the open Fisheries, and preferable to rent them out to one single individual. Governor STEIN VAN GOLLENESSE contends in a very interesting document, for the advantage of this latter plan, and combats all the objections which had been raised to oppose its being adopted.

The Fishery of 1746 accordingly took place on this new footing, all free boats were then abolished, for, as the Governor states "this privilege seems to have been merely conceded "because the greater number of the dhonies and people required at a public Fishery come out "of their country, and these will not be necessary if the diving takes place with a limited "number of persons; the right may therefore be withdrawn." His Excellency accordingly conveys instructions to the Commissioners of the Fishery that "if it should happen that "the NABOB or Theuver should send their Ambassadors to be present at this fishery, and "to take care of their pretended rights, they are not to be allowed to land, but some armed "boats well filled with men and ammunition must be sent to meet them, and they must first "be warned in a friendly manner to depart, and if this be ineffectual the matter must be "treated more seriously." &c. &c. The Fisheries of 1746, 1747, 1748 and 1749 were rented out respectively for £12,000—£21,400—£38,580 and £68,375, and that of 1750, which was a fishery of six days only, for £5940, but in none of them is any claim made on the part of the NAICK and THEUVER for themselves, and of course still less for the Temples to whom they had given portions of their own privileges. But at Tuticoryn, in 1749, the Company becoming anxious for its "*defenceless linen factories*" agreed to give the Naick "even 30 or 35 divers," but, say the secret instructions, "if the Catta Theuver, or any other "Native Chief should request a similar concession, you must refuse it flatly."

I now beg to call attention to the document No. 32, being translation of a Resolution passed in the Council of Ceylon on the 27th. March 1766, as it contains details of the concessions which had been made in the Pearl fisheries to the NABOB and Theuver, and was drawn up to meet claims, not brought forward by the Temples, but by the parties themselves under whose grants the Temples now institute their ill-founded pretensions. It will be seen that the Council considered it clearly proved "that these Princes could not base their claims to a share in "the Manaar fisheries on any treatise or agreements concluded between them and the Company"—and that the most natural reasons of these concessions having been granted appeared to be "the assistance given by their people and their dhonies to the Fishery, and to lead them "to give reciprocal advantages in the Tuticoryn trade."

It being thought advisable to continue to the Naick his ancient privileges on account "of the defenceless state of the Dutch Residencies on the Coast, a new collection of Cloths &c." it was proposed to reduce his number of divers from 96½ to 15, as the fisheries had in 1722 admitted 3227½, and in 1732, 4,651½ divers, whereas in 1766 they only consisted of 600. But afterwards when it was found that "the NABOB might cause the Dutch Company greater "loss by embarrassing its affair than it would gain by withholding from him the share "he claimed in the fishery," it was agreed to admit his former number of 96½ stones. But for the Theuver, through whom it must be remembered the Temples chiefly claim, no such consideration was entertained—a treaty concluded with that chief in 1767 allows him "to have "in every full fishery in the Pearl banks between Manaar and Calpentyn, on the Ceylon "Coast, five boats, *at the same price at which the Renter has contracted for his boats &c. &c.*"

"in return for which he conceded to the Ceylon Government, for himself and his heirs, to all eternity, the possession of the Channel of Pamben."

In 1768, the last Fishery took place in the Dutch times; it was unsuccessful on account of the weather—in that fishery there were violent disputes between the NABOB's envoy and the Dutch Commissioners, the former having come to Aripo attended by a large party of armed Sipahis; the Theuver paid the stipulated price for his five boats; and no mention whatever is made of the Temples. The Governor and Council say to the Commissioners "We expressly forbid you by these presents to allow to the NABOB's envoys more than ten dhonies; and with respect to the Theuver, to depart one hair's breadth from what is given him by our treaty (of 1767) and we order you to abide most closely by these instructions, even should they happen to put a stop to the fishery; and if force is employed on their side, you will meet it with force &c."

Though no fishery occurred from 1768 to the time of our possession of the island in 1796, yet various inspections of the banks took place, and various negotiations were entered into with the Nabob of the Carnatic, who had succeeded to the rights both of the Naick and Theuver. The acquisitions gradually made by the English in the Southern parts of India encroached to an alarming extent on the commercial monopolies of the Dutch. With a view of securing their advantageous cloth-trade, which even at the late date of 1787, gave a clear profit of 60,000 Rixdollars to their Company, they agreed to give the NABOB (and to him only) in a full fishery from 20 to 35 boats, not however to contain more than 96½ stones, and the number both of boats and divers was to be lessened when the fishery was a limited one.

I shall not however enter into the details of these Treaties; as none of them were even ratified, no fishery took place during their negotiation, and they do not mention the Temples. I merely submit the Journal of an unsuccessful mission of Mr. SLUYSKEN in 1770 to the Court of the NABOB, in which a passing allusion is made to old Temple-claims, of which that envoy states his entire ignorance; "it may perhaps be the case, says he, that under the King TURCO-MALE-NAYKER, the pearl fisheries were held in the manner your Highness details in the following paragraphs but there exists nothing to prove all this—but, on the contrary, all the documents which can be produced shew, that the Hon: Company became independent proprietors of the Pearl banks by force of arms, and have been always acknowledged as such, and the Fisheries, have ever been conducted by the Company without opposition or discussion."

Mr. SLUYSKEN, Mr. DOTT, Mr. BLAAUWKAMER and Mr. BUCHANAN, were all successively engaged in negotiations which ended without advantage to either party; but in which it was the Company's aim to gain security for their cloth monopoly at Tinnevely &c. and that of the NABOB to obtain a larger proportion in the Pearl fisheries. I cannot avoid however inviting particular notice to the important letters from Governor FALCK to the NABOB, which form Nos. 42 and 43 of the Extracts herewith transmitted, and in which His Excellency, after allusion to the concessions formerly made, but totally withdrawn in 1746, adds "the Company, in the exercise of the same independent authority, consented to give that number of free stones again to the ARMANIE (the Court of the NABOB) but gave no boats again to any other party."

I shall now, for the sake of brevity, only beg attention to the documents numbered from 44 to 75, which occupy the years between 1770 and 1795, and which include instructions from the Batavian Government to their subordinates in Ceylon, respecting the claims of NABOB and the demands of the Kandyan Court—and which also embrace a correspondence between the NABOB, Sir ARCHIBALD CAMPBELL (in the NABOB's behalf) Mr. BUCHANAN, and Governors FALCK and VAN DE GRAFF—and I shall at once go over to a consideration suggested by the correspondence between the Government of Madras under Lord HOBART and that of Ceylon under Mr. VAN ANGELBEEK, bearing the late date of 1795.

I have already mentioned the importance to the Dutch Company of the Cloth trade on the Madura Coast;—the monopoly of that trade had been guaranteed to the Dutch by several commercial treaties the first of which appears to be dated in 1690; for the sake of that trade, concessions in the Pearl fisheries beyond any former precedent had been made to the NABOB; Sir ARCHIBALD CAMPBELL had, if not in his capacity of Governor of Madras, yet as a private

gentleman filling that eminent place, guaranteed the performance of a treaty to be concluded with the NABOB through his Agent Mr. BUCHANAN—and still, when the English influence predominated over that of the Dutch, and when a remonstrance was made by the latter to the English Government of Madras against the interference of its subjects with the monopoly conceded to them by ancient treatise, what is the answer given? “You observe,” say Lord HOBART and his Council, “that the Dutch Company have possessed the right upwards of a century of exporting the cloths that are manufactured on the Coast of Madura, to the exclusion of all other European nations, and that this right had been always acknowledged by the ancient princes of that country. *Oral testimony of this acknowledgment cannot, in any event, at this late period, be admitted, and even, if written documents were adduced (of which none have yet appeared) we could not allow that the Princes, to whom you have ~~had~~ reference, had the power of bestowing in perpetuity such a right.* “Circumstances have undergone a material change since that period. “The Southern provinces of the Peninsula are UNDER THE GOVERNMENT OF ANOTHER PRINCE” &c. &c. In a similar strain are the observations contained in the original letters Nos. 77 and 79 to which I would also draw attention; and I beg to be allowed to remark, that if these observations were at the time considered by the Madras Government applicable to a treaty concluded between a native Prince and a Foreign Government, they must apply with tenfold force to claims based on no treaty, only obtained from Chiefs who themselves simply claimed the right as a remuneration for services which they had it *then* in their power to render, but which services have long since ceased to be either required or given.

With respect to the admission ~~for~~ the Temple claims by Mr. ANDREWS in 1797, and by the Hon: Mr. NORTH subsequently, I beg to refer to the remarks made in my Analysis of the Official correspondence herewith returned; and I must again observe, that had Mr. ANDREWS properly enquired, as he was bound to do, with respect to “the rate established during the Dutch Government,” he would, in all probability, not have admitted the claims of the Temples, nor have misled Governor NORTH and his successors into the commission of a similar error.

I shall sum up by remarking that the Dutch conceded to the NABOB and THEUVER certain boats from 1667 to 1732, that they might not prevent divers and boats coming to the Ceylon Fisheries from their coasts. The NABOB and THEUVER gave a small proportion of their boats out of religious motives to certain Temples. The Dutch withdrew their concession in 1744 and none of these parties enjoyed it afterwards. How can it then be urged that *this* Colonial Government is to admit the claims of the Temples to immunities which are founded on grants emanating from princes, who themselves ceased to have a right 50 years before the English possessed this island?

In conclusion, I beg, with the utmost respect to express my deep regret that the Dutch Records, to which I am chiefly indebted for the intelligence and information I have gained on this subject, have so long been permitted to remain concealed and hidden in a foreign language from the inspection and examination of the Government and public of this island. I can confidently assert that, to the best of my belief, reference might advantageously be made to those Archives on almost every subject connected with the internal improvement and agricultural advancement of the Maritime provinces of this Colony. I have on many previous opportunities already stated this opinion, and cannot omit repeating it on the occasion of my giving in a Report on an important subject, the materials of which are almost exclusively derived from the source to which I refer; and if there be any thing wanting in this paper to attain the object with which it has been drawn up, I am obliged to say that such deficiency must rather be attributed to the long neglected and confused state of those Archives, than to the absence of due information among them, or endeavours on my part to avail myself of it.

I have the honor to be Sir,

Your most obedient Servant

(Signed) GEORGE LEE.

The Hon<sup>ble</sup>

P. ANSTRUTHER Esq.

Colonial Secretary.

&c. &c. &c.

No. 19.

Master Attendant's Office  
Colombo 11th April 1842.

Sir,

I have the honor to report my return to this Port on the 9th instant, from an Inspection of the Pearl banks lying off Aripo and Calpentyn, and in transmitting the report made by the Native Headmen of the Pearl fishery, to state for the information of His Excellency the Governor, that I sailed from Colombo on the 2d. of March, in the Schooner "SAIDO LETCHEMY, of Paumban, hired for the period of the examination for the sum of Forty Pounds,—and that the following is an account of my proceedings and the result of the Inspection.

I arrived at Aripo on the 5th of March, and not finding the Native Headmen and Inspection boats at that place, I proceeded on the morning of the 6th to the South bar at Manaar, and was there informed by the Adapanaar, that orders had just been received from the Government Agent to assemble the usual boats,—but that they could not be got ready before the 11th or 12th.

Under these circumstances, I resolved to employ the intermediate days on a visit of inquiry into the state of the channel at Paumban, and to ascertain whether the Government Steamer "Seaforth" could pass through it without risk of injury to her copper sheathing.

Lieutenant WHIRLDALE, the Superintending Officer of the Public works at Paumban, afforded me all the information in his power, and I am enabled to state, from an inspection of the table of sounding, that the channel has been deepened to 8 feet at low water, with the exception of the sandy bar at its southern entrance, over which I could not find more than 6 feet water; but, as this shallow space has been considerably reduced in extent, and as the work of deepening is in successful progress, there is every reason to believe, that the whole course of the channel will be sufficiently deepened for the "Seaforth" to pass through it, within the period of 12 months.

I returned to Manaar on the 11th of March, commenced the Inspection of the Pearl banks on the 12th, and in conformity with your letter No. 6. of the 3rd (received on the 11th) turned my attention to the Negombo canoes, which were fishing with drifting nets.

The 12th proved a seasonable day for the examination, but the result was not successful.

From the 13th to the 18th the work was suspended by the strength of unusual S. W. winds.

On the 19th the examination recommenced, and early in the morning, seventeen canoes were seen fishing with nets in five fathoms water. The Government Barge, despatched on this duty, brought one of these canoes to me, and in it I found six nets, each of about 30 fathoms in length, so that the whole six would extend, when in the sea, a distance of about 180 fathoms. The depth of the nets measured 15 feet,—but they nevertheless trail on the bottom of the sea, for many substances found on the Pearl banks, and small oysters, as well as oyster-spawn, have been found entangled in them when brought to the shore.

As there were no oysters on the ground where this canoe was fishing, nor any oyster-spawn entangled in its nets; and as it is not sufficiently clear, that the Regulation No. 3 of 1811, would apply to fishing boats, I released the one in question, and it proceeded towards the shore well laden with fish.

From the 19th to the 23d the work of the Inspection proceeded over the banks off Aripo, but I am deeply concerned to have to report, that no deposits or beds of oysters were found on them, and but very few oysters of various ages under 5 years.

From the 24th to the 1st of April the Inspection was conducted over the extensive rocky banks lying off Calpentyn and the Island of Cardieu, even to the depth of 13, 14, and 15 fathoms water, but, I regret to have to state, with no better success than attended the work off Aripo.

Although no beds of oyster were found on the banks, immense quantities of oyster-spawn has been observed on the sea-beach adhering to sea-weed, which had been washed on shore, so

that ballams could have been filled with it. Some of it, and the few oysters picked up on the banks are herewith transmitted.

On the 1st. of April, the S. W. wind returned with much force, accompanied by a strong current and high sea—difficulties too great for the divers to contend with;—and as the season was too far advanced to hold out a prospect of being able to recommence the work on the banks, I considered it advisable to close the most unsuccessful Inspection of the Pearl banks. that I have ever been engaged on.

The few oysters scattered over the banks that have been productive, the deposit of young oysters found by the "Seaforth" on the great bank in 1840, the scattered oysters off Chilaw and Calpentyn, and the immense quantities of oyster-spawn washed on the shore, are sufficient indications that the Pearl oyster is not extinct in these places, (indeed the latter would seem to predicate the existence of unknown oyster beds,) but they afford no data on which to form an opinion, as to when Pearl fisheries may be expected on these parts of the Coast.

The prospect of revenue from Pearl fisheries is therefore very unfavourable, being limited at present to the bed of oysters of a year and a half old in *March* 1841 found by the Commander of the "Seaforth" between Negombo and Chilaw, and some oysters in the neighbourhood of Jaffna, but which are not esteemed of much value: neither of these oyster beds has been visited by me at any time.

I have the honor to be

Sir,

Your most obedient Servant

The Hon'ble

P. ANSTRUTHER Esq.

*Colonial Secretary.*

&c.

&c.

(Signed,) JAMES STEUART

*Master Attendant.*

#### EXTRACT FROM A GLASGOW NEWSPAPER OF NOVEMBER 1842.

##### PEARL FISHERIES.

We quote the following from a letter dated Stavanger, in Norway, 4th. Instant :—"There has been found in the bed of the great stream that runs through Jedderen, in the diocese of Christiansand, and which from the excessive heats became dry, a great number of bivalve shells containing pearls, some of which were so large and fine that they were valued at 1550 f. a piece. At the beginning of the 17th. century, when Norway was annexed to Denmark, the Government took the pearl fisheries of this stream into its own hands, and the finest pearls were sent to Copenhagen to be deposited in the Crown treasury. After this, the produce of the fishery became so low that it did not pay the expenses, and it was abandoned. It will now probably be resumed."

FINIS.



P. 55. Mr. Wigell's Report.

Oysters found on the Archa Banks in Oct 1845  
had disappeared in the following Spring.







