

The Draining of the Fleet

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In the spring of 1630 a group of gentlemen came together, probably at Abbotsbury, to plan the draining of the Fleet Lagoon. This was, perhaps, the most audacious civil engineering project to be carried out in Dorset in the seventeenth century, and indeed, was hardly to be surpassed until the coming of the railways. Earlier commentators have expressed amazement at what was planned, indeed Christopher Taylor (1970) went so far as to describe it as a 'far-fetched and ill-considered scheme to drain the Fleet'. However closer reading of the evidence suggests that the scheme was far from being 'far-fetched and ill-considered', and though it was eventually unsuccessful, this was as much due to machinations at the Court in Whitehall, as to a failure to understand details of the local geology.

The Fleet is a thirteen kilometre long lagoon separated from the open sea by the shingle ridge of Chesil Beach. Several streams flow into the Fleet, and eventually reach the sea at Smallmouth in Portland harbour. At the north west end lay the Abbotsbury swannery, which, in the early seventeenth century, was probably the most important economic asset of the Fleet. Elsewhere the Fleet was fished, though the principle fishery lay in the open sea off Chesil beach. To some peoples mind the Fleet was an underused resource, ripe for improvement.

The agreement for the draining of the Fleet was signed on 1 July 1630,

Between Sir John Strangways and Sir George Horsee of Clifton in the said Countie of Dorset, Knight, William Freke of North Cadburye in the County of Somerset, Esquire, George Peny of Toller Welme in the said Countie of Dorset, Esquire, Simon Hill of London, Gentleman, Robert Freke of Hilton in the said Countie of Dorset, Gentleman, Arthur Freke of North Cadburye aforesaid in the said Countie of Somerset, Gentleman, Robert Peny of Eastcoaker in the said Countie of Somerset, Gentleman, and Anthonie Wright of London, Gentleman. (Raishley Papers 38a)

The adventurers, to give them their seventeenth century title, agreed;

To use their best skill and endeavours to and at their own proper costs to drayne a certayne Meere Fleete or parcel of Saltmarsh

being the inheritaunce of the said Sir John Strangways which, time whereof the memorie of man is not to the contrarie hath layn under water and over and upon which Meere or Fleetes the sea doth and hath used to ebb or flowe, commonly called or known by the name or names of East and West Fleetes lying and being in the parishes villages limitts or precincts of Abbotsburie Wyke Chickerell Fleete and Langton containing in the whole by estimation three thousand and one hundred acres. (Raishley Papers 38a)

The actual area of the open water of the Fleet is, in fact, under half that estimated, about 1200 acres, and even allowing for changes over the intervening four centuries, there can be no doubt that the size of the area to be drained was massively overestimated. Why this should be, when surveying methods available at the time were perfectly capable of measuring the Fleet with reasonable accuracy, is unknown.

Sir John Strangways was not investing any of his money in the scheme. He was supplying the land to be drained, and would receive;

that part of the said Meere Fleete which is called or knowen by the name of the West Fleete heretofore severed or parted from the rest of the said Meere Fleete or Saltmarsh called the East Fleete by an ancient banke, ridge or causeway called Bridgehill on the east side thereof containeth by estimation One hundred acres or thereabouts. (Raishley Papers 38a)

This time the area is about right. The draining of this part of the Fleet, now known as the Abbotsbury embayment, would have effectively destroyed the swannery, but this was apparently accepted by Sir John.

Work seems to have started at the beginning of 1631 and, whilst there were problems, the adventurers were certain they would be overcome. There was, however, a difficulty which they had not foreseen. The lease had been drawn up on the understanding that Sir John Strangways owned the bed of the Fleet, but did he? When news of the activity in Dorset reached London someone realised that Sir John's ownership of the Fleet bed was far from clear. If it had been a fresh water lake there would have been no

problem, but the Fleet was salt (or at least brackish) so was it an arm of the sea? if this was the case then it would belong to the crown. A courtier, George Kirke, one of the Grooms of the Kings Bedchamber, saw an opportunity. He collected evidence that the Fleet was an arm of the sea (and hence crown land).

The Affidavit of Allan Manisley of London, Gent. Who made oath that there lieth of the South Side of Weymouth a Creeke called the Fleete which hath always been accounted as sea lying always under salt water and the Tide there always flowing, the Beach lying South from this Fleet, between it and the South Sea, this Ground being by estimation worth Fourpence an acre or thereabouts and containeth Three thousand acres as he verily believeth. (Raishley Papers 39a)

With this evidence he sought and obtained;

A graunt of these premisses ... unto George Kercke one of his Majesty's Bed Chamber and Thomas Allen Gentleman for the consideration of [blank in original] pounds. (Raishley Papers 39a)

He seems to have been led to believe that the Fleet had already been drained and that he would receive, either several thousand acres of newly reclaimed land, or a payment from those who had actually done the work so that they could keep the land they had drained. He was to be disappointed. Storms during the winter of 1631/2 had damaged the works and the Fleet was again underwater.

George Kirke was furious and, convinced that the works had been deliberately sabotaged by the adventurers so that he would receive nothing for his grant, brought an action against them. They were questioned, and it soon became clear that they had not deliberately flooded the Fleet, so George Kirke was left with the options of either abandoning the project or draining the Fleet himself. He decided on the latter.

On 26 November 1633 he signed an agreement with Sir John Strangways, to drain the Fleet anew. Sir John was still being very sensible, in not putting up any money, but now would receive a much larger part of the reclaimed land;

The said Sir John Strangways and his heires shall have in part of his or their three parts, all that part or parcel of the said Fleete lying adjoining being or abutting upon the Manor of

Abbotsbury so far as the Brook which devideth the Manor of Abbotsbury and Langton containing by estimation Two hundred acres or Thereabouts (be it more or less) (Raishley Papers 41a)

The various drainage attempts were clearly of interest to visitors. In July 1635 Peter Mundy visited the Fleet, and wrote in his diary;

This indraught which cometh about by the Easter[n] end of Portland was in hand to be dreyned to make Pasture Land, whereon was spent great sommes of money in makeinge of sluces, trenches, etts. Inventions to keepe the Tide from comeing in, as also to lett out what is within. But as yet to litle purpose, the maine sea soakeing through the beach all alonge. It is sayd they will proceed afresh. (quoted in Richardson 1921)

Work seems to have progressed slowly so that in 1636 it could be stated that

That the same John (Sir John Strangways) and his undertenants have cut off and enclosed from the sea the aforesaid land and soil of le Fleete ... or a greater part thereof at their own charges (Raishley papers 43a)

Unfortunately this isn't conclusive evidence that the Fleet had been drained at this time. George Kirke seems to have decided to pull out of the scheme and had agreed to support Sir John Strangways in obtaining a grant of the Fleet for himself. A few paragraphs after the one just quoted the document says;

We deign to graunt to the said John Strangwaies and his heirs le Fleete and the land and soil thereof, together with a certain bank of stones called le Beech ... at the yearly Rent of £10 to be paid after the work of cutting off and enclosing ... shall have been finished. (Raishley papers 43a)

For his help in obtaining the grant of the Fleet, George Kirke received a lease of one quarter of it, presumably with a view to reclaiming at least a part, however within four years he had returned his portion to Sir John and ended his connection with the project. (Raishley papers 44a and 45a)

There was still the rent to the crown of £10 per annum, payable for the reclaimed land. Apparently the crown was of the opinion that the land had been drained and was

demanding its money. In 1646 Sir John Strangway applied for the payment to be stopped. The evidence for the failure of the drainage scheme was clear

Affidavit made by one Joseph Master of Abbotsburye aforesaid that although much cost and charges had been bestowed and much money spent in endeavouring to drayne the said water called the Fleete and to inne the soyle from the sea and lay it drye yett all the expense hath beene to no purpose but the said Fleete continues still undreynd and not yet inned from the sea (Raishley papers 46a)

The document granting this exception for payment was summed up succinctly in the note made on the outside.

The rent of 10£ per annum for the Fleet upon the new Patent, which is not to be payd until the major pte. thereof be drayned which is not nor will ever be done (Raishley Papers 46a)

The Methods employed.

The original lease drawn up in 1630, together with the answers given in response to the charges of deliberate sabotage in 1633, draw a picture of how the Fleet was drained. However it must be remembered that the lease was designed to cover all eventualities, and some of the methods mentioned may not have been used.

The adventurers clearly considered that Chesil beach would provide a natural sea defence to the south west, a mistake that was to cost them dear, and so;

They did bestowe a very greate deale of labour and charge in and towards the making of a great Dam or Bay of greate bredth and length crossing betweene the land and the Sea Banke or Beach therein soemuch that to their very great charge and with much payne or labour the flowings of the broade Sea were restrayned or stopt out by the said Dam or Barr from flowing into the said Fleet. (Raishley Papers 40b)

The dam was built of earth and rubble, and in the original lease it was agree that the adventurers would be allowed to;

take up and carry away any quarry or quarries of stones or any earth sand or soil whatsoever within the said Meere Fleetes or parcel of Saltmarsh as any of them shall think needful to

use or employ about the said works (Raishley Papers 38a)

The dam was possibly faced with stone on the seaward side, as was the later Herbury wall (see below) and it contained several sluice gates which seemed to have caused problems from the very beginning;

about Mich'mas last one of the Sluces which stood in the great Bay was worne through by the vyolence of the Water wich would have endangered the whole Worke yf it had not been speedily prevented. And allsoe the walls of the great stone Sluce suncke and fell down insoemuch as yf it had not been remedied with speed it would as this Defend't beleeves have endangered the whole Worke. (Raishley Papers 40b)

After the dam had closed the end of the Fleet pumps, powered by wind or water mills, were to be erected to pump the water away. Though the adventurers were faced with certain restrictions, they could;

erect any mill or mills within both the said Fleetes called the East and West Fleetes as they or any of them shall think meet for the more commodious and better draining of both the said Fleetes or any part thereof. And also to erect any mill or mills in or within the aforesaid Meere or Fleete called the East Fleete to any such use or purpose as they shall think fit so as the said mills or any of them be not made within four miles of the town of Abbotsbury aforesaid. (Raishley Papers 38a)

Sir John Strangways owned the mill in Abbotsbury, and did not want his monopoly in grinding corn threatened.

As the water level dropped, drains were dug so that water from the streams that entered the Fleet at Abbotsbury, Langton Herring and elsewhere, could be led away safely. The adventurers had agreed;

to cut and dig all and every such rivers channels sewers draynes or ditches (Raishley Papers 38a)

and apparently they had succeeded, as George Penny reported they had;

to their great like charge made divers sluices of Stone and Tymber and other meanes and helpes to drayne and convey away the Water out of the said Fleet into the Sea with an intent

and hope to have recovered some good quantity of dry ground and to have made use thereof for corne or meadow grownds: (Raishley Papers 40b)

Where these drains were concerned it was Sir John Strangways who was restricted in his actions by the terms of the lease, as he had agreed that;

It shall not be lawful for the said Sir John Strangways and Dame Grace his heirs or assigns or any of them at any special and fit times of draining to lay any nets weels pottes or other engines to take fish in or so nere any of the trunks sluices or fludgates as thereby to dull or hinder the free passage of the water through the said trunks sluices or fludgates or any of them. (Raishley Papers 38a)

However;

In case any of the rivers channels or drains intended to be made in the said Meere Fleets or Marsh shall happen to be servicable for the carriage of boats barks and other vessels wherby commodities maie be transported to or from the town Abbotsburie aforesaid free liberty for the said Sir John Strangways and Dame Grace his heirs or assigns his her to their or any of their servants.... freely to passe and return with boats or any other vessels through any of the locksluices or channels made or to be made in the said Meere Fleet or Marsh. (Raishley Papers 38a)

For all these works to be carried out, access to the works was needed;

also convenient and fittte waies paths and passages into over and upon the lands tenements of the said Sir John Strangways and in his possession lyeing and beinge in the said parish of Abbotsburie aforesaid at convenient and apt places there to be allotted ... for every of their servants laborers and workman cattle and carriages to goe come passe carie recarie and travaile into out of and from the said Meere or Fleete for the draining thereof and keeping the same from overflowing again so often as need shall require. (Raishley Papers 38a)

The new land was to be farmed and settled and the adventurers were to be allowed;

to erect within or upon the said parte of the said Fleete called the East Fleete hereby graunted or anie parte or partes thereof anie dwelling howse or howses so as to everie suche dwellinge howse there be layd twentie acres of the same Fleete or more to bee used and occupied with everie such howse. (Raishley Papers 38a)

The works seemed to be progressing successfully, the land was slowly drying out, it was reported that, 'some part of the saide Fleete was put in soe good a way of Drayneinge as that a man with boards fastened to his feet have gone therupon', but then something went very wrong.

Failure of the Scheme

George Kirke was convinced that the drainage scheme had been sabotaged, he had some reason, as Sir George Horsey admitted;

that hee being informed that George Kirke Esquire one of the Groomes of his Ma'te Bedchamber had procured from his Majestie a Graunte of the said Fleet and intended to outt and dispossess this Defend't and his partners thereof and to take the benefit of their Industry labour and Charge [he] did say rather that it should turn again to a Fish Poole. (Raishley Papers 40a)

However;

Nevertheless this Defend't and his Partners have been soe farr from doing any hurt or Damage to the said worke as they have spent and layd out about repaying the mayne Bay wch is made over th'warth the said Fleete and certain Sluces therein a very good Some of mony to preserve the same Baye and Sluces. (Raishley Papers 40a)

The problems the adventurers faced were massive, as George Penny reported;

the Sea at tymes of stormy windes and Tempests hath soken & flowen through the said gravely or sandy banke into the said Fleet againe and cannot without great labour and continuall charge bee kept out allso about Mich'mas last one of the Sluces wch stood in

the great Bay was worne through by the violence of the Water wich would have endangered the whole Worke yf it had not been speedily prevented. And allsoe the walls of the great stone Sluce suncke and fell down insoemuch as yf it had not been remedied with speed it would as this Defend't beleeves have endangered the whole Worke. And theruppon hee this Defend't did to his great charge of allmost Fortie pounds cause the same great breach to bee amended and stopt upp agayne and so it now continues. (Raishley Papers 40b)

But these works retained constant repair, Sir George knew what would happen if the works weren't maintained, he prophesised that the Fleet;

will of itself soone return to his ancyent Forme if this Defend't and his Partners doe but hold their hande off it. (Raishley Papers 40a)

With storm damage to the dam and water coming through Chesil Beach he was swiftly proved correct and the Fleet flooded again.

One minor, probably short lived, result of the drainage scheme may been the place name 'New Works' (the drainage scheme at Herbury was formerly known as 'Fry's Works' and is shown on the current Ordnance Survey map as the 'works'). On 11 December 1641 the *Golden Grape* was wrecked on Chesil beach, by the 'New Works'. This was clearly close to Wyke Regis as one of the injured seamen was carried to the home of Andrew Gray, an ale house keeper of Wyke Regis. (Pope, 1920)

Later writers (for example Bird, 1971 and Taylor, 1970) have generally been critical of the adventurers, considering that their plans were 'far-fetched and ill-considered'. In particular they accuse the adventurers of naivety, bordering on stupidity, in their apparent assumption that Chesil beach would form an impermeable barrier to the sea. That an intelligent man looking at Chesil Beach might be misled into thinking it would provide a suitable barrier to the sea is shown by the comments made by E.H.T Atkinson (1927) when writing about the drainage attempt. He suggested 'that the Chesil beach in Charles I's reign was not so high or solid as it is now', implying that he thought that the sea, in 1927, would not come over or through Chesil Beach. The Earl of Ilchester, with his considerable local knowledge, immediately corrected this statement, but it

does show that it was not unreasonable for someone to consider that Chesil Beach was impermeable. It is also possible that the adventurers had seen water percolating through the beach, but hadn't realised the volume, and thought that their scheme, in particular the large drain (it was considered that it might have been big enough to act as a canal) could deal with it. In view of the amazing drainage schemes successfully undertaken by their contemporaries in East Anglia, their plans may well have shown overconfidence, but were not 'far-fetched and ill-considered'.

Danger to the realm

A curious aside to the attempts to drain the Fleet can be found in the state papers for 1636. It consists of a series of questions and answers, trying to prove that by draining the Fleet the natural defences of Weymouth and Sandsfoot castle would be destroyed and the area left wide open to attack by an enemy.

Reasons to prove the drayneing of the Flete neere Weymouth in the County of Dorset to be of dangerous consequences to this State.

By means thereof an invading enemy will there have a landing place of more easy descent and lesse danger not only in that County but in the whole Kingdom. The sandy Beache or Chesill (as they terme it) is by it severed from the land, 5 or 6 miles in length as a greate mote or ditch for the countryes Safegard, the land within riseing gently from it without any cliffes as in other places, and the sea on the outsyde of the Beache shoare – deepe all alongst the coast & free from rocks and Shelves &c. so as shippes of good burthen may come close aboard it.

An enemy there landed though but with meane forces may (by this meanes likewise) in a short tyme intrenche himselfe with such advantage, that all the strength and forces of that part of the Kingdom will hardly be able to remove him. The Isle of Portland and the Peninsula of Wyke, both neere adjoining to it, are places, already by Nature so fortified, that a good trench of a mile in length, makes that of Wyke a place of great strength and the like of halfe a mile, that of Portland impregnable, where the enemy shall not only finde houses sufficient to lodge most of his troops: but of corne cattle & great plentye.

Being so landed and intrench't he will have the command of a good harbour and of one of the best Roades and the opportunist of all that coast. Portland Roade is commanded by the Isle of Portland on the one syde, and that of Wyke on the other, having good anchorage and space and shelter enough for a greate Fleete of Shippes to ride in safety most wynds and weathers. And Weymouth harbour adjoining to it is a place capable of as greate shippes as most that Dunkerk or St. Malo's can afforde.

But because some objections may be made against the reasons alleadged the most material of them are (together with their answers) sett downe as followeth –

Ob. 1. That Coast from Portland westward (especially about Beckington [Bexington] for two miles space) was as dangerous before, and an enemy there landing might soone be att Weymouth, it being but 6 or 7 miles distant. So as this will not much alter the case.

Anw. This arme of the sea being taken away it will be ten tymes as dangerous as before: for the Fleete now lyes as a moate or ditch full of oaze and mudde of a greate dredth & depth for 6 miles space betwixt the beache and the firme lande suppplyeing that waye the want of that naturall defence of cliffes and high land which the rest of the coast on both sydes hath: besides if this goe forward an enemy may land on the backside of the towne where it hath no defence att all and that within a mile or a little more, and so have a shorter marche and come more suddaynly on; and (if occasion require) make a more safe and easy retreat to his shipping, and likewise be neerer to Portland Roade to give on att the same tyme.

Ob. 2. The Ditches and Draynes that will be made in this improved ground, will give an enemy some stopp and impediment in his landing, and the two castles of Portland and Sandsfoote will hinder any Suddain attempt howsoever.

Ans. Those Draynes And Ditches will be no hinderance att all considering that in five miles space the enemy may come on where he list and will perhaps make his advantage of those Ditches to favour his retreat, and as for those 2 castles, they cannot stand us in any steede, being that toward the land they are [not?] defensible, they being made to command Portland Roade, and this landing place being made to command Portland Roade, and this landing place being on the other side of Portland and out of the 2 Castles Viewe.

Ob. 3. No Fleete of Shippes will adventure into the West Baye of Portland, both from feare of Stormes, and in regard of the disadvantages if they should be sett upon.

Anw. Experience shewes the contrary for lesser Fleetes especially. Witnessse the 12 Sayle of Dunkerers that have a good whiles now lately hovered up & downe in that Baye, betwixt Portland and Dartmouth, some of them chaseing our Shippes into the very bottom of the Bay into Lyme Roade and within shot of that Towne, as att other tymes hath been donne heretofore; and witnessse those Shippes that nowe dayly ride att anchor close aboard the Shore or att least within Shott thereof, and neere to this place of danger spoken of. (Quoted in Anon. 1915)

This was clearly written with no local knowledge at all since no one who knew anything about Chesil beach would suggest that landing an army there would be;

of more easy descent and lesse danger not only in that County but in the whole Kingdom.

Or describe it as a 'sandy Beache'!

This whole account was probably based on a map and a few local reports (the reference to the Dunkirk Privateers) and was, I suspect, an attempt by someone else at Court to spoil any chance of George Kirke making any profit from his grant of the Fleet.

Other attempts to drain the Fleet.

Herbury

The attempts of the 1630's clearly showed that it was virtually impossible to drain the whole of the Fleet, but the idea of land reclamation refused to go away. Whilst it was clearly impossible to drain all the Fleet, it seemed as if it might prove possible to drain part. In a lease dated 6 June 1665;

the said William Fry his executors administrators and assigns shall endeavour to drain and make dry the said plott or peece of ground called Yerberry Hope.(Raishley Papers 57a)

William Fry was steward of the Abbotsbury estate, a practical man who had chosen his ground well. The bay at Herbury (SY 610 812) is large and shallow with a comparatively narrow entrance, Hope or Ope is a local word for bay, still used on Portland (e.g. Church Ope Cove). His plan was simple, a sea wall was to built across the entrance to keep the waters of the Fleet out. A small stream flowed into the bay from the north, but this would not have posed a problem to contemporary technology. There seems to have been no reason why this scheme should have failed, but it did so. Within a hundred and fifty years hardly anything was remembered of William Fry's attempt. In 1808 Robert Pittman the decoyman at Abbotsbury, then aged 60, was asked about past aspects of the Fleet. Amongst other things he;

Says that at a point called Yerbury in the Parish of Langton there is an embankment thrown up called Frys works that it appears to be the rems of an Old wall & has heard old people say that a man by the name of Fry tried to drain that part of the Fleete. Don't know who Fry was. (Dorset Records Office D/FSI 312)

Fleet Manor

Evidence of a much smaller land reclamation scheme can be found at Fleet, just below Moonfleet Manor Hotel, formerly Fleet Manor House (SY 6199 8042). Here a small bay is closed off by the remains of a sea wall and other walls link this to the coast. The area which would have been drained is very small, about 6000 m². Other structures in the area include the remains of a nineteenth century pier and a small artificial island, probably also nineteenth century. These structures are probably garden features, the sea wall and land reclamation scheme being linked to formal late seventeenth or early eighteenth

century gardens around Fleet Manor (Le Pard 2000). This formal garden is unlikely to have survived the storm of 1824 which caused extensive damage along this section of the Dorset Coast (Le Pard 1999).

Gold!

Finally on September 14 1904 the Dorset Natural History and Antiquarian Field Club held a meeting on Chesil Beach. Here Mr C.E.A. George gave them a short talk on the waters of the Fleet, in which he mentioned that;

He was approached not very long ago with a proposal for enclosing certain portions of the Fleet with a view to obtaining gold. He had not known or imagined before that the Fleet water was a gold mine (laughter) but it seemed that there were works near Hayling Island, worked on the principle of enclosure and deposit. So far nothing had come of the proposal.

The amusement of the Field Club member was understandable, as can be imagined, and nothing came of the proposal.

Surviving evidence

It is curious that the drainage attempts of the 1630's are so well attested in the documentary record, but have left no clear physical traces surviving to the present, whilst the attempted draining of Herbury, of which there is only slight documentary evidence, has left very clear physical remains. It is, perhaps, easier to consider the remains at Herbury before examining what might survive from the earlier drainage attempt.



Across the entrance to Herbury 'works' lies a bank, submerged at high water. This has an overall length of 340 metres, and consists of a spread of pebbles and broken limestone fragments, about 30 metres wide. At a point about 100 metres from the southern end is a shallow area, usually completely covered by water. At several points on the south western side of the bank are the footings of a wall about one metre wide, made of slabs of

local limestone. Fragments of this limestone are to be found scattered all over the higher parts of the bank. At both the northern and southern end of the embankment are clear traces of old quarries, probable sources of material. This would suggest that the Herbury Works consisted of a substantial stone wall, backed by an earth and rubble bank. Similar sea walls, of seventeenth and eighteenth century date, can be found to the west of Lymington in Hampshire. Though requiring regular maintenance, the design is an effective one, which only deepens the mystery of how the works could have failed and been forgotten so quickly.



Unlike the Herbury land reclamation scheme the drainage attempt of the 1630's have left no traces that have yet been discovered. Two sites within the Fleet have been suggested as being associated with the drainage (Whittaker 1978), the Herbury bank and the submerged causeway or wadeway below Chesters hill to the south west of the Abbotsbury embayment. This causeway is shown on eighteenth and nineteenth century estate maps, where it is called Brudgell or Bridgehill, and it is mentioned in the 1630 lease as, 'an ancient banke, ridge or causeway called Bridgehill'. It clearly has nothing to do with the 1630 drainage scheme, and is currently the subject of a separate study. It is suspected to be of medieval date.

So if remains relating to the drainage scheme have not yet been located, where might they be? Some clues lie in the 1630 lease, the answers to the questions posed in the legal action of 1633 and other contemporary sources, but all these must be treated with caution. Furthermore the lease of 1630 was highly detailed in order, one suspects, to cover every eventuality and for this reason cannot be taken as an accurate guide to what was actually carried out. What the documents do make clear is that a

substantial dam was built between Chesil beach and the mainland, which resulted in the draining of, at least part of, the Fleet. In addition drains or sluices were almost certainly dug in the Fleet bed to assist in the draining, and the possibility that some pumps were erected must also be considered. From the sources it is possible to make some tentative conclusions.

It was intended to drain most of the Fleet, the areas to be drained are situated in all the parishes from Abbotsbury to Wyke Regis. This would suggest that the dam lay to the south eastern end of the Fleet, where there was a place called 'New Works' in 1645. The fact that the dam could be seriously damaged by storms also suggests a location close to the south eastern end of the Fleet. Any structure here would be sheltered from south westerly gales by Chesil beach, but exposed to easterly gales. These often caused damage to ships moored off Smallmouth before the building of the Portland breakwater in the 1840's.

However, it is unlikely that the dam was built as far east as Smallmouth, simply because there is no mention in the 1630 lease of a possible land link with Portland, and the tolls that could have been charged on the use of such a link, and it seems unlikely that as detailed a document as the lease wouldn't have mentioned it. The most likely location for the dam would therefore be at the south eastern end of the Narrows, in Wyke parish. This is, as the name implies, the narrowest part of the Fleet, and therefore the obvious place to build a dam, in a position exposed to easterly gales and yet far enough away from Smallmouth not to be of any use as a land bridge to Portland.

Further evidence as to how the adventurers tried to drain the Fleet might come from three possible sources; documentary, archaeological and environmental.

Documentary – whilst it is unlikely that any more documents will be discovered relating directly to the drainage scheme, it is possible that apparently unconnected items may provide important clues to the location of the works. For example the place name 'New Works' is only recorded in the account of a shipwreck on Chesil Beach.

Archaeological – the great dam, and other works should have left physical traces, that may be discovered.

- (i) The remains of the dam:- Whilst the construction of the dam is unclear, it may either have been entirely of earth and rubble or, as the slightly later Herbury Works Wall was, faced with a stone wall. It is clear that the dam had substantial stone and timber

sluices. After the failure of the project the site would probably have been robbed for building material, but some traces should survive. Perhaps blocks of worked stone on the Fleet bottom?

- (ii) Ancillary structures, drains, sluices and pumps. 'Divers sluices of Stone and Tymber' were built and remains of these could still survive buried under the sediment at various places in the Fleet. It is less certain if pumps were ever erected, and in any case such structures would probably have been prefabricated and semi portable, and could have been removed after the venture failed. If any water mills were built to power the pumps, then lower portions of any structures might remain in the sediment. However as no buildings are mentioned in any account of the scheme then the existence of water driven pumps must be considered as very unlikely. However it is perfectly possible that wind mills were erected and they would have been as easily removed as the pump itself. In this case the only traces that might survive would be the base of the post on which the mill was mounted, or the post hole where it had been situated.

Environmental – the effects of the drainage might be found in the sediment record. The partial draining of the Fleet would have caused local changes in the environment, which would have left their record in the sediments. The drainage could have had three different effects.

- (i) Drying completely, causing the death of the normal Fleet organisms, and possibly the short term colonisation by terrestrial plants.
- (ii) Water, becoming more saline. Where salt water remained, or entered the lagoon, and wasn't either diluted with fresh water, or flushed by a direct link to the sea, evaporation would have created hypersaline conditions.
- (iii) Water, becoming fresher. Where freshwater streams or springs enter the lagoon, and the access of salt water was restricted, there could have been a local build up of fresh water conditions.

[In the summer of 2002 Dr. Patrick O'Sullivan of the University of Plymouth reported that he had found evidence of reduced saline conditions in a core of Fleet sediments taken off Langton Hive. Unfortunately it is impossible to date this layer but it is possible that it may relate to the drainage attempts of the 1630's (O'Sullivan per. comm.)]

- (iv) Whilst the construction works could have caused
 - a. Layers of 'made ground' a bank, perhaps alongside one of the sluices or drains, will appear in the sediment record as a mixed layer, apparently interpolated between the 'normal' layers of deposition within the Fleet.
 - b. Truncation of the sediment record. Where channels were dug in the mud to facilitate draining the record would be truncated, and an unconformity (to used a geological term) would be created.

It is only by means of discoveries in the future that we will ever be able to solve the mysteries that still surround the Draining of the Fleet.

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Sources

The primary source for the story of the attempted draining of the Fleet are the 'Raishley papers'. This is a collection of documents made in 1888 as evidence in a court case. Transcripts of these documents were privately published in a substantial volume, a copy of which is in the library of the Dorset Natural History and Archaeological Society.

The documents quoted are;

- 38a Sir John Strangways to Sir George Horsey and others of the East Fleet in consideration of their draining the whole Fleet.
- 39a A particular of the Fleet 25 June 1631
- 40 Bill and answers 1633
- 40a Answers of Sir George Horsey
- 40b Answers of George Peny esq.
- 41a Agreement between George Kirke and Sir John Strangways 26 November 1633
- 43a Patent Roll 12 Charles I 13 July 1636
- 44a Lease from Sir John Strangways to George Kirke of a fourth part of the Fleet June 1637
- 44a Regrant by George Kirke to Sir John Strangways of a fourth part of the Fleet 2 November 1641

- 46a Order in exchequer acquitting Sir John Strangways from the payment of £10 for the rent of the Fleet, till it should be drained 1646
- 47a Lease by Sir John Strangways to John Herne .. of the Decoy at Abbotsbury .. in consideration of the expenses of the making the said decoy 2 February 1655/6
- 57a Lease by Sir John Strangways to William frye of a parcell of the Fleete called Yerberry Hope 7 June 1665

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