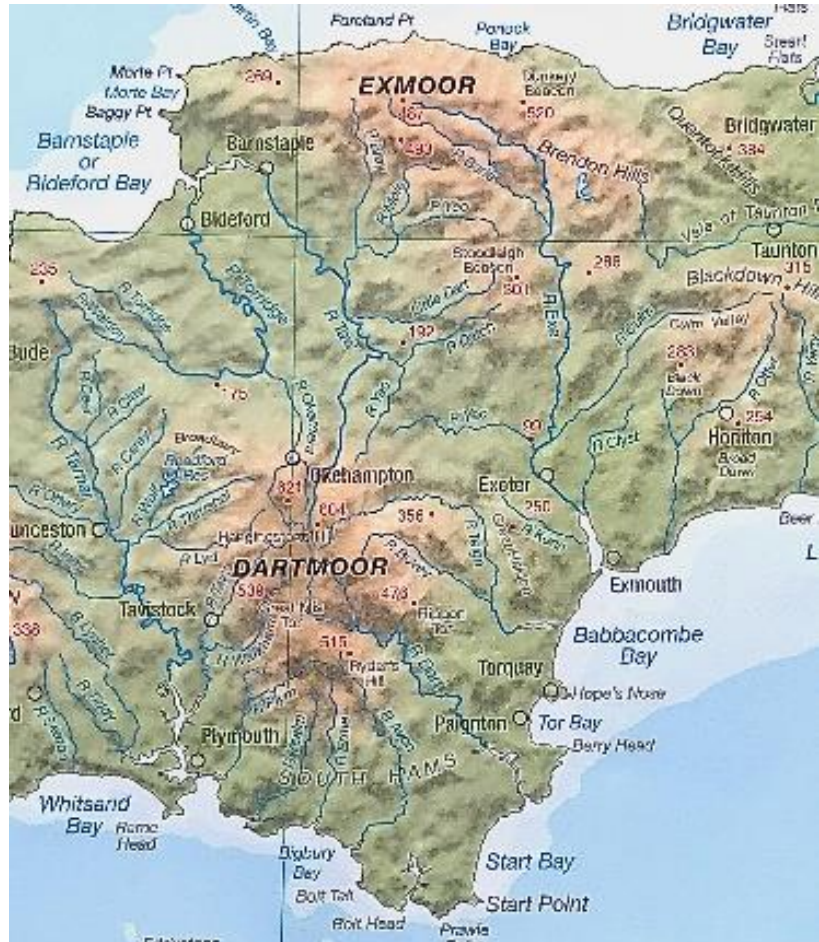


5.1. River Dart

1. Location

The East and West Dart rivers rise at a height of over 500 metres on the high mires of central Dartmoor, before combining at Dartmeet and, thereafter, descending to follow a winding course to the sea at Dartmouth. The river's catchment drains 10% of the geographical area of Devon and flows past Buckfast Abbey and through the villages and towns of Buckfast, Totnes and Dartmouth.



2. Why was the Case Study Site selected?

The River Dart, on its passage from Dartmoor to the sea, comprises, initially, a fast-flowing upland stream, whilst its middle reaches are wide, winding and bordered by ancient woodlands and other important designated habitats, before opening out as a large tidal ria between Totnes and the sea. The entrance to the river from the English Channel is bounded by high rocky cliffs on either side, and the scenic nature of the Dart throughout its course has, as a result, been illustrated extensively by artists since the late eighteenth century. The Dart does, therefore, provide the opportunity to evaluate the contribution that artworks can make to support understanding of the nature, scale and rate of physical and environmental change over this extended time period.

3. Summary of the Geology, Fluvial Geomorphology and Processes

From the heights of central Dartmoor, the East and West Dart rivers form tumbling streams as they traverse the granite bedrock, before descending rapidly to their confluence at Dartmeet. The river catchment of some 475 square kilometres flows rapidly down from the impermeable granite of the upper reaches with water volumes increasing rapidly and often dramatically after heavy rainfall, with consequent flooding impacts on downstream riverside towns and villages. Flowing south-eastwards, past Buckfast towards Totnes, the Dart follows a meandering course, which is determined by the varied bed geology and the transition from the Dartmoor granite through younger Devonian slates and shales before, eventually, flowing over volcanic rocks through its lower reaches. The Dart Estuary, which is a large ria, is tidal down from Totnes and flows into the English Channel between dramatic cliffs on both sides. During spring tides at Low Water, the river almost

dries out for over 3 kilometres below Totnes. The diverse geology, and the geomorphology of the Dart, bordered by woodlands, together with saltmarsh and reed bed habitats, result in a rich biodiversity.

4. How can the Art Imagery inform us of river change?

Artists have painted the River Dart since the late eighteenth century when remote locations, such as Dartmoor, were visited by artists wishing to paint England's most picturesque scenery. The artworks depicted on the following pages, together with present-day views for comparison, follow the course of the river from source to sea. The views of the upper reaches show the general nature of the watercourse flowing down through Dartmoor's granitic landscape, together with the meeting point of the East and West Dart at Dartmeet, as depicted by Alfred Robert Quinton in **Figure 1.2**, painted in 1920.

Being located within one of England's National Parks, and on account of the remote and natural location, there would appear to be relatively little change along much of the course of the river over time. The middle reaches follow a winding and sweeping course down towards Totnes, and are flanked by woodlands, extending down to the water's edge. The woodlands appear to be more extensive than illustrated in the view looking south-east towards the town engraved in 1832 (Allom & Bartlett, 1832¹).

The early watercolour by William Payne, c.1790, shown as **Figure 1.6** shows a view of the town bridge and some of the properties and boatyards bordering the river, which, at this point, marks the extent of upstream navigation.

The gentle fluvial characteristics of the Dart extending on down towards Dittisham are well illustrated in the watercolours (**Figures 1.8-1.10**), showing the scenery between 1880 and 1925. Dittisham itself sits high above the broadest part of the Dart Estuary, and, although some of the coastal slopes have become more developed, the overall character of the area remains much as depicted in the watercolours by A.R Quinton and the town waterfront view (**Figure 1.11**) by Charles Robertson, painted in c.1870, is reminiscent of the scene today.

Towards the mouth of the estuary, the village of Kingswear was painted and subsequently engraved by William Daniell RA in 1823, and his two views of the developing village at that time show the rocky nature of the estuary mouth, with ornate marine villas, and Dartmouth Castle on the south-western side in the distance.

A further watercolour (**Figure 1.19**) shows the view looking towards the mouth of the Dart Estuary from the sea, again showing Dartmouth Castle in the centre left and the headland to the right. Daniell's view looks inland towards Kingswear from across the mouth of the harbour and shows the nature of the topography, the extent of development and agricultural practice on the surrounding hillsides. Daniell's aquatints include many other river mouth scenes around the whole of the British coast, these being contained in his monumental book (Daniell & Ayton, 1814-1825²).

The art imagery, therefore, illustrates, the physical characteristics of the river Dart over time. On account of the predominantly hard rock geology, the processes of change over time appear to be quite limited in terms of their overall impacts, and subsequent designation of much of the course of the river and its environs for landscape and environmental reasons has led to a high degree of environmental protection for the catchment, with a presumption against human intervention, which has also limited change.



Figure 1.1: *A Dartmoor Stream* by E.W. Haslehurst, c.1915, illustrates clearly the wild nature of the upper catchments of the East and West Dart.



Figure 1.2: The confluence of the East and West Dart at Dartmeet is depicted in this detailed watercolour by Alfred Robert Quinton. c.1920.



Figure 1.3: The East Dart at Dartmeet showing the river bed strewn with granite boulders with *Two Bridges* beyond. Lying within the Dartmoor National Park the natural river environment remains virtually unchanged. Courtesy: Commons Wikimedia.



Figure 1.4 shows the nature of the middle reaches of the Dart looking towards Totnes in 1831. This image shows the topographical detail that could be achieved by the steel plate engraver, including the winding course of the river, the banks of sand/silt within the channel, as well as the extent of vegetation on the valley sides.

Figure 1.5 shows the Dart near Totnes; the river becoming tidal and almost drying out below the town at Spring tide Low Water. The designation of 21 Sites of Special Scientific Interest (SSSI's) within the catchment and estuary management have helped maintain the quality of the natural environment.

Photograph courtesy: Alexloll, Creative Commons.





Figure 1.6 shows the important river town of Totnes near the bridge in c.1800. the scene was painted in watercolour by the prolific William Payne who toured Devon's coastline and interior extensively.

Courtesy: Devon Archives & Local Studies, 2022.

Figure 1.7: Totnes is the lowest bridging point on the Dart and the original thirteenth century bridge illustrated by Payne was replaced in 1838 as shown in the photograph below.

Image: © Derek Voller, Creative Commons Licence





Figures 1.8 (above) and 1.9 (below) provide two highly detailed watercolour views of the River Dart by George Shepherd and Alfred Robert Quinton, painted in c.1850 and 1920 respectively. The views show the very natural state of the lower reaches of the Dart in the nineteenth and early twentieth centuries being taken at High Water (above) and on mid-tide (below).

Courtesy: © Trustees of the British Museum (above) and Salmon's (below)





Figures 1.10-1.12 show the views of the small port of Dittisham by A.R. Quinton in c.1925 (above), by Charles Robertson c.1870s (centre) and the present-day view (below). Dittisham sits high above the widest part of the Dart Estuary with the waterfront still lined by cottages that were depicted in the earlier artworks.

Courtesy: Salmon's (top), Newport Museum & Art Gallery/WatercolourWorld (centre), © Tom Jolliffe, Creative Commons (bottom)





Figures 1.13 (above) *On the Dart near Kingswear* and **1.14 (below)** *of Kingswear* are both aquatint engravings by William Daniell RA from his extensive *Voyage Round Great Britain* (undertaken between 1814-1825). Daniell's precise artworks are topographically and architecturally accurate and illustrate the rocky sides to the estuary close to its mouth at Kingswear.





Figures 1.15 (above) and 1.16 (below) are both watercolours by the distinguished artist, David Addey, who, in the 1990s, retraced William Daniell's great voyage and painted each of the 308 views from Daniell's original vantage points.

Addey's watercolours alongside Daniell's views provide important benchmarks, over time, illustrating physical, environmental and cultural heritage change, or lack of it, on many of Britain's estuaries and river mouths. On account of the geology here, the most obvious changes are in the patterns of coastal development, although the ornate villa in Figure 1.13 has been lost.





Figure 1.17 (above) of *Kingswear* by David Addey (1995) shows the water frontage looking out towards the mouth of the Dart in the distance.

The aerial view in **Figure 1.18 (below)** shows Kingswear on its headland near the mouth of the Dart. The character of the town with its many prominent houses and the wider estuary environment appears largely unchanged over the last thirty years.

Courtesy: © Derek Harper, Geograph.





Figure 1.19 (above) of *Junction of the Dart with the Sea* by William Daniell RA, produced in 1824, shows the narrow entrance channel guarded by Dartmouth Castle. The view has changed little over time, although the tree growth has spread across the hillside. **Figure 1.20 (below)** courtesy: en.Wikipedia.



5. What are the key issues that can be learnt from this Study Area?

The artworks of the river Dart clearly illustrate the nature and character of the river since the early nineteenth century. They suggest that there has been little physical change over much of the river over time. The lack of change can point to successful management in terms of protection of the landscape and the natural environment. The artworks also illustrate the gradual spread of riverside development along the estuary and particularly within the lower reaches and towards the river mouth.

6. References

1. Allom, T. & Bartlett, W.H. 1832. *Devonshire and Cornwall Illustrated*. London.
2. Daniell, W. & Ayton, R. 1814-1825. *A Voyage Round Great Britain*. Longman's. London.



Harold Sutton Palmer

The Dart at Dittisham

Watercolour.c.1913