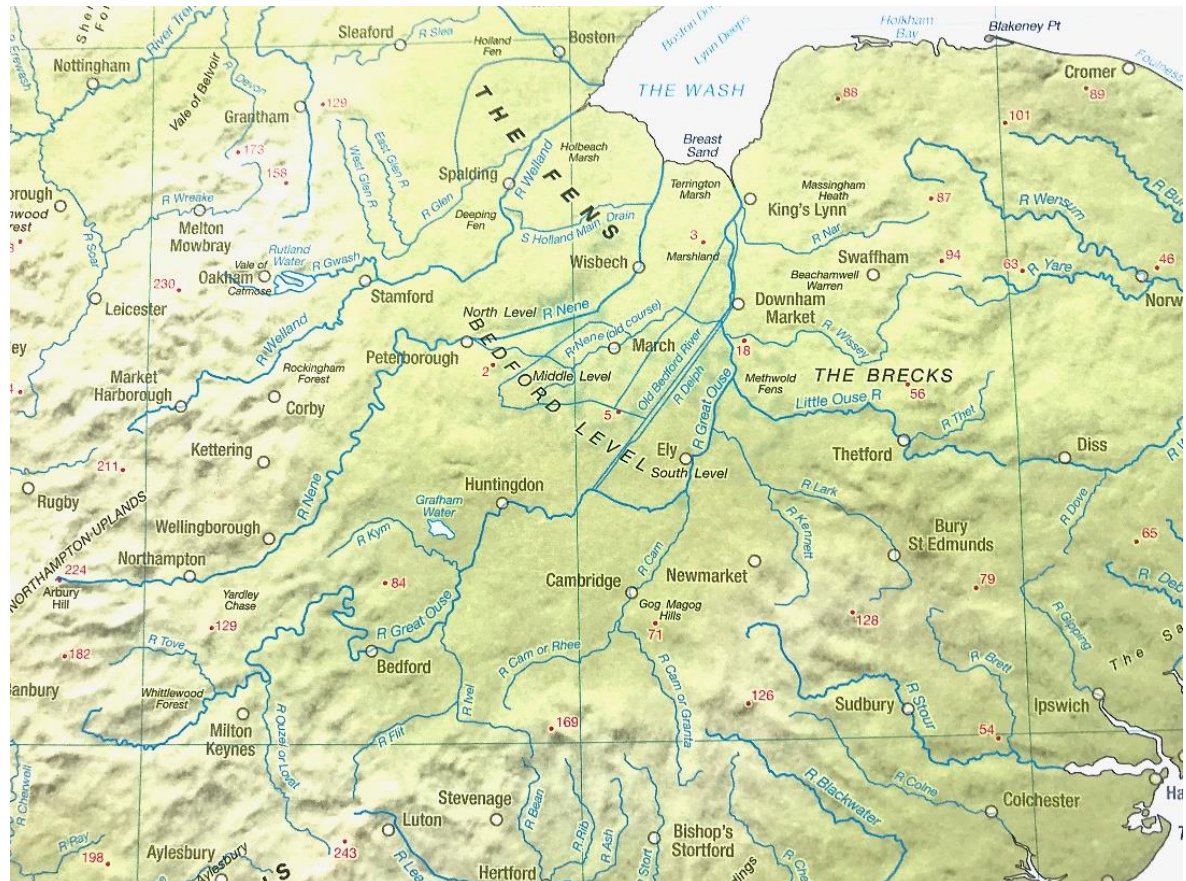


5.11. River Great Ouse

1. Location

This case study is located along a short frontage of the River Great Ouse between the towns of Huntingdon and St. Ives and the adjacent river-front villages.



2. Why was the Case Study Site selected?

This section of the Great Ouse has a long history of flooding but is also the location of a particularly important family of artists, the Garden family, and others, who painted along this picturesque stretch of the river in the late nineteenth and early twentieth centuries. The Garden family is perhaps unique in English landscape watercolour painting on account of the extreme level of detail that their works provide, following the ethos of the Pre-Raphaelite Brotherhood that nature should be captured precisely, truthfully and in exact detail following the teachings of the Great Victorian art critic, John Ruskin. The seven brothers of the Fraser family all painted locations along the Great Ouse and more widely, and their photographic artworks have the potential to make both qualitative and quantitative assessments of river change over time.

3. Summary of the Geology, Fluvial Geomorphology and Processes

The course of the Great Ouse passes through a gentle, undulating topography. The landscape is divided by broad, shallow river valleys, which widen gradually in an easterly direction. The low-lying clay lands encompass the Bedfordshire Greensand Ridge, whilst the bedrock underlying the majority of the river's course is mid-to-late Jurassic in age, consisting of mudstones laid down up to

175 million years ago. More recent Quaternary glacial deposits can be found throughout the course of the river, comprising Boulder Clay or till and gravels and river terrace sands.

Flowing from Syresham in Northamptonshire, the Great Ouse passes through Buckinghamshire, Bedfordshire, Cambridgeshire and Norfolk to drain into the Wash and the North Sea near King's Lynn. With a total length of 230 kilometres, mostly flowing north and east, it's the fifth longest river in the United Kingdom. The Great Ouse has been important, historically, for commercial navigation, and for draining the low-lying regions through which it flows; its best-known tributary is the Cam, which runs through Cambridge. Its lower course passes through drained wetlands and fens and the river has been extensively modified or channelised to relieve flooding in particular.

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

The case study has reviewed the role that art imagery can play in explaining change along this part of the Ouse through comparison of a series of watercolours of the villages from west to east, including Hartford, Houghton, Hemingford Abbots, Hemingford Grey, the town of St. Ives and, finally, the hamlet of Holywell to the east. The whole of this river frontage is picturesque in the extreme and historic buildings close to the waterfront are a feature of all the sites visited. The whole of the course of the Ouse in this area is fast flowing through extensive water meadows and lagoons with flood defence embankments and other protection measures in place in developed locations, but, elsewhere, allowing the river to overtop and spread across the floodplain.

It will be immediately obvious having examined historical artworks by the Fraser family in particular, compared with the present-day views, how detailed and accurate a record the nineteenth century artworks fulfil. In fact, many of them are so precise that the measurement of change quantitatively may be possible, a tool that can only be utilised with perhaps no more than twenty artists who painted England's rivers in the nineteenth century.

This particular site does illustrate, therefore, particularly well how art may be utilised, providing images in full colour at a time when landscape photography, in black and white, was still in its infancy. Such images are likely to be of interest to river managers, designers, environmental officers and those interested in cultural heritage both within the Environment Agency and amongst stakeholders more widely.

When engaging with stakeholders the issues surrounding river management and nature-based solutions, and in some cases the necessity to breach flood defences, can be explained particularly well taking advantage of such images.



Figure 11.1: The hamlet of *Hartford on the Ouse*, a copperplate engraving. c.1830. This picturesque view shows the church close to the river bank which is now strengthened by a wall instead of timber breastwork. The river is wider and the jetty has gone but otherwise the scene has changed little. The wider floodplain can be seen on the left of the engraving. **Figures 11.2 and 11.3 (below)** show the vicinity today.





Figure 11.4 (above) is a watercolour of Houghton showing the historic mill (now owned by the National Trust) and the church. This watercolour was painted in precise detail by William Fraser Garden in 1889 and it can be seen from the present-day photograph (**Figure 11.5, below**) that the location is virtually unchanged.

Watercolour courtesy: Chris Beetles Gallery, London.





Figure 11.6: *Hemingford Abbots Church seen from Hemingford Grey* by William Fraser Garden. Watercolour. 1901. Garden's detailed view shows the brimming river passing through water meadows, much as in the present-day view today (**Figure 11.7 below**). Image courtesy: Chris Beetles Gallery, London. The technical skill of Garden as a watercolourist is obvious – he's fulfilling the role of a colour photographer provide through his work.





Figure 11.8 (above) and 11.9 (below) provide two more detailed views of the Great Ouse frontage painted by William Fraser Garden in 1899 and 1894 respectively. The view above shows Hemingford Abbots from the river, whilst below is a more distant view of St Margaret's Church, Hemingford Abbots. This pair of watercolours show the river, the riverside natural environment and architecture in photographic detail.

Courtesy: Chris Beetles Gallery, London.





Figures 11.10 (above) and 11.11 (below) show Hemingford Grey on the Great Ouse in 1890 and today. Again, the scene shows little apparent change, although the vulnerability to flooding is obvious.

Courtesy: Chris Beetles Gallery, London.





Figures 11.12 (above) and 11.13 (below) show two more views of Hemingford Grey by William Fraser Garden created in 1889 and 1890 respectively. These watercolours clearly depict the nature of the natural environment in the last decade of the nineteenth century. The wide river floodplain can be seen extending back nearly to the church (above), whilst the watercolour below shows the manor house in the distance.

Courtesy: Chris Beetles Gallery, London.





Figure 11.14 (above): William Fraser Garden's exceptional watercolour of St Ives bridge has a photographic quality. Painted in 1895 it shows the chapel and two storey extension added in 1736, which was removed in 1930 (**Figure 11.15 below**).

Courtesy: Chris Beetles Gallery, London.





Figure 11.16 (above): *The Tranquil River at St Ives* by W. F. Garden. Watercolour. 1890. To mitigate flood risk in St Ives low-lying areas close to the town centre can store flood water and a building is raised on stilts (**Figures 11.17-11.19 left and below**).

Courtesy: Figure 11.16 – Chris Beetles Gallery, London.





Figure 11.20 (top) shows the historic Ferry Boat Inn at Holywell to the east of St Ives on the river bank. The scene was painted by W. F. Garden in 1902.

Figure 11.21 (middle) shows the Inn in times of flood painted by Arthur Anderson Fraser in 1891.

Figure 11.22 (bottom) shows the Inn today. The river embankment has been raised substantially along this frontage and the retaining wall improved.

Courtesy: Figures 11.20 and 11.21
Chris Beetles Gallery, London.

The kind assistance of Chris Beetles Gallery and of Charles Lane is gratefully acknowledged in the preparation of this case study.

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

The case study illustrates the outstanding artistic skills of some Victorian artists and the role that their artworks can fulfil prior to the introduction of colour photography. The images help to explain how the River Great Ouse has been managed since the 1870s and degree of change, or lack of change, over the last 150 years.

6. References

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Figure 11.23: William Fraser Garden

Watermill at Hemingford Grey

1896

Courtesy: Chris Beetles Gallery, London.

5.12. River Bure

1. Location

The River Bure rises south of Melton Constable in North Norfolk, and flows south-east across the county to Breydon Water on the coast near Great Yarmouth. This case study concentrates on the river frontage in the vicinity of Coltishaw, Wroxham and Horning in the Broads.



2. Why was the Case Study Site selected?

East Anglia has an important art history and has been described as “*the cradle of English landscape painting*”. Taking account of this, the study reviews the potential of art imagery to inform understanding of river change in a low-lying extensively flooded natural environment. The Bure is one of the five major rivers within the Broadland rivers catchment and is renowned for its unique habitats and historical influences. There is a long history of flooding within the river’s catchment, particularly due to historic mill structures restricting the flows of water. These structures not only increased the likelihood for flooding but also prevented rivers from being able to flow into the sea during times of High Water, creating tidal locks (Environment Agency, 2009¹; Natural England, 2015²). Taking account of this range of issues, the location was deemed suitable for consideration.

3. Summary of the Geology, Fluvial Geomorphology and Processes

The Bure catchment is made up of thirty bodies of water with six of these being natural, twenty-three are modified and one is artificial (Broadland Catchment Partnership, 2018³). The Bure is the longest river on the Broads, flowing for 80 kilometres to the sea at Gorleston (Broads Authority, 2018⁴). From North Norfolk the river flows towards the North Sea and Great Yarmouth in a south-easterly direction. It becomes navigable at Coltishaw and later merges with the River Thurne, after flowing through Wroxham and Horning, which are popular holiday resorts. The next stretch meanders across the Havergate Marshes, before joining the River Yare at Breydon Water where it

flows into the sea. The river has several tributaries, with the two most important being the River Thurne and the River Ant; the overall catchment area of the Bure is 880 km. sq.

The River Bure's geology and soils are predominantly composed of floodplain peats, which are underlain by Crag Gravels and sands of the Cenozoic era, which in turn overlie the chalk. Within the river valley wetlands and grassland habitats can be found, which contrast with the drier soils and intensive arable areas within the more elevated surrounds to the river. The river flows gently through an undulating rural landscape that has been straightened and modified over time, including provision of sluices, mills and weirs. A vast selection of wetland, woodland and grassland habitats can be found in the river valley. Natural England describe the Bure's wetlands as of national and international importance, particularly between South Walsham and Wroxham on the fenland peats.

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

The art history of Norfolk has been recorded comprehensively by a number of authors over time, and, equally, during the late eighteenth and early-to-mid nineteenth centuries the county was described extensively in fine topographic books, often illustrated with engravings or aquatints (Britton & Brayley, 1812⁵; Stark, 1828/34⁶; Rajnai, 1976⁷; Hemingway, 1979⁸; Munn, 2006⁹; McInnes & Stubbings, 2010¹⁰). Whilst the Norwich School produced some of this country's most eminent artists, particularly at the start of the nineteenth century, many of the subjects chosen were rural scenes, sometimes illustrating rivers but not always identifying their locations. Many other rural landscapes which contain river scenes are genre subjects (human, animal subjects or featuring events such as river regattas), whilst a further body of work includes numerous views of the city of Norwich or the developing coastal towns. As a result, the number of images showing more detailed portrayals of the river itself are restricted to watercolours produced by the prolific postcard artist, Alfred Robert Quinton, and the book illustrator, Alfred Heaton Cooper.

Their illustrations show river scenery at Coltishaw (Figures 12.1-12.3), at Belaugh (Figures 12.4 and 12.5), at Horning (Figures 12.6 and 12.7) and Wroxham (Figures 12.8-12.10). As might be expected in a location of national importance (a National Park) and high environmental and landscape significance, alongside villages with significant cultural heritage, strong regulation has protected these environments and relatively little change can be observed through the images over time. The watercolours by A.R. Quinton, as always, provide interesting local detail, such as the lock at Coltishaw, whilst the views of the waterside village of Horning have changed little except the increase in Broads river traffic. Whilst riverbank defences have been improved, these are very much in character with those that existed in the past. Similarly, at Belaugh, in Figures 12.4 and 12.5, the scene is reminiscent of the view painted by Quinton in c.1924.

Perhaps the most significant changes are in the vicinity of Wroxham Bridge where there has been intense tourism development, although the old bridge featured in the watercolour still exists, a pedestrian bridge has been constructed alongside it. The 'estates' of riverside houses abut the waterways and are intensively developed in this way in the immediate vicinity of Wroxham itself, although outside the confines of the town the natural state of the Broads immediately returns. These river images along this section of the Bure show, therefore, relatively little change over time with limited intervention in terms of riverbank protection being the main feature in terms of flood defence.



Figures 12.1-12.3, left and centre, shows scenes depicting the River Bure in the vicinity of Coltishall painted in watercolour by Alfred Heaton Cooper in c.1924 and engraved by James Stark (bottom) in 1833. The view by Quinton shows Coltishaw Lock. As a prolific watercolour artist, his detailed depictions of locks and weirs illustrate how river water management was practised in the first three decades of the twentieth century. Stark's engraving of Coltishall (bottom) depicts the perfect English river landscape, again at Coltishall, with little evidence of any human intervention. Today, the riverside pub and bank protection on the developed side of the Bure can be seen.

Courtesy: Figure 12.1 - Salmon's.



Figures 12.4 (above) and 12.5 (below) show the charming village of Belaugh between Coltishall and Wroxham. The church and houses form a picturesque scene alongside the river. Modest riverbank protection comprising a timber breastwork illustrates the 'limited intervention' approach adopted in many Broadlands villages.

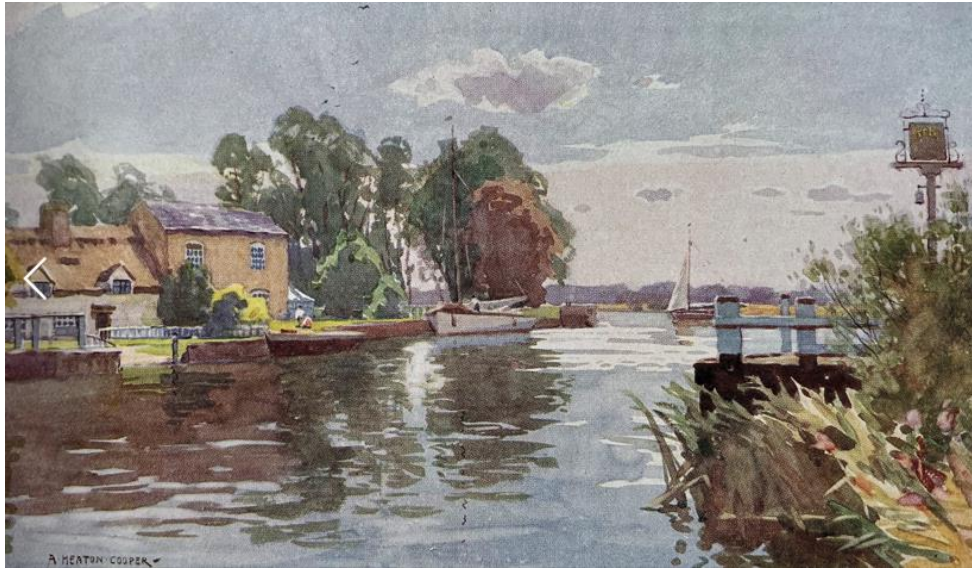




Figures 12.6 (above) and 12.7 (below) show the water-based tourism hub of Wroxham, which, as in Quinton's view above, is still busy with craft of all kinds, as, today, waterside 'estates', all with direct water access, are a feature of the village, whilst immediately outside the boundaries of development, the natural environment returns.

Courtesy: Figure 12.6 – Salmon's.





Figures 12.8-12.10. To the east of Wroxham is the busy village of Horning fronting the Bure. The watercolours by Alfred Heaton Cooper, c.1913, top and by Quinton, c.1920 (centre) can be easily compared with the present-day view (bottom). As at Wroxham, the development is restricted to a tight envelope with the Bure Marshes National Nature Reserve immediately to the west of the village.

Courtesy: Figure 12.9 (centre) - Salmon's.

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

Although at first inspection there were apparently a large number of river images for the county of Norfolk, on more detailed review many of these did not provide sufficient information on location or river change that could usefully inform this study. A similar issue was experienced with a potential case study for the river Waveney to the south and, for this reason, that particular case study was not pursued. However, it was possible to identify some later images from the early twentieth century, which illustrate the nature of the section of the Bure between Coltishaw and Horning through watercolour art. These demonstrate relatively little change, as might be expected within a National Park, an area of such importance for its natural environment. It points to careful management of the river by the responsible bodies, including the Environment Agency and the Broads Authorities.

6. References

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