Accompanying Notes to the 'Exhibition': Photographs of the River Exe and its flood channel as it flows through Exeter.

Karen Huckvale 2005

A Brief History of the River Exe.

The River Exe is close to the origin, patterns of settlement and trading heart of the city of Exeter, the route of imports, exports, waste disposal and communication.

Exeter was an international trading place from pre Roman times. A considerable number of Hellenistic or Eastern Mediterranean coins have been found in excavations within the city which indicate there was trade and significant connections between the 'Exeter' site and with the Mediterranean countries from around 250 BCE.

The people who lived in Exeter before the Romans came were a Celtic tribe known as the Dumnonii. Some of them were traders but they were mostly farming and fishing people.

The Exe in those days was full of salmon and the word Exe may derive from a British word *Eisca* meaning, 'a river abounding in fish.'

The Romans occupied the site in 49 AD and gave it the name of Isca Dumnoniorum meaning Isca, capital city of the Dumnonii. Then in about AD 120 they began building: houses, public buildings a regular street pattern and substantial high earth banks around the town. These were superseded in 200 AD with a wall which became the line of the medieval city walls. The Romans must also have had a bridge over the Exe. Whilst nothing remains it seems pretty certain that there was a timber bridge similar to that built over the Thames in Roman London.

Exeter had overseas trade and the river was crucial to this. At Exeter the river suddenly narrowed, as it does at Topsham today. This narrowing meant that Exeter was probably the first place the river could be forded at low tide, and later the first point at which a bridge could be built. In addition Exeter was at the tidal limit of navigation for ships. Early overseas traders would have unloaded their boats where the Custom House now stands. This area formed a natural 'quay' being hard red sandstone and good landing place.

There are good reasons why a trading settlement should have grown up where Exeter stands today. Here a long ridge of dry ground approaches the river. It forms a plateau about 100 feet above the river level and it is on this plateau that the city grew.

It is well above the river and has gravel soil on top of harder rocks which meant a good location for buildings. It had good fishing grounds, an abundance of fresh water springs, fertile red lands to the east for growing corn and easy access to timber from woodland to the north for building and fuel. These are an excellent combination of factors for a thriving settlement.

The site of Exeter, at some ten miles up-river from the river mouth, was fairly safe from invaders. The hill which we now call Rougement was a good vantage point to spot any strange ships coming along the estuary hours before they could attack.

The city declined with the departure of the Romans around 380 AD and the next important development for the river began in the twelfth century. The river then was much wider and flowed as far east as Frog Street. The area was a swamp which in early times was good natural defence, but as the city grew the land was drained to make it usable. Drainage channels or leats were cut to reclaim the marsh area between the foot of the hill and the river, the part of the city now known as Exe Island. The leats not only drained the swampy land between the city walls and the river but also provided a source of water power for the cloth mills of the city.

The west bank of the river was also largely a swamp as place names like Marsh Barton and Shooting Marsh indicate. Land here was reclaimed later on.

The medieval bridge. KH

By the end of the twelfth century Exe Island was the industrial quarter of Exeter with clothing mills, tanneries, corn mills, bronze working and a flourishing wine trade. All were using the river for transport. This reclaimed land outside of the city walls belonged to the Earls of Devon.

The building of the first stone bridge over the Exe is attributed to Nicholas Gervase and his son Walter who was mayor of the city from 1236 to 1238.

However the bridge appears to have been started as early as 1196 and took some 40 years to complete. It crossed the river
diagonally, was around 700 feet long and sixteen and a half feet wide, with a carriageway of about twelve feet. Much of it was demolished in 1778 when the 'new' bridge was built.

By the thirteenth century the Earls of Devon were in a position to control the river from Exe Island and seriously interfere with the city's sea borne trade.

In 1284 Isabella de Fortibus, Countess of Devon, made two weirs across the river to drive a new mill built within her manor at Topsham. A thirty foot gap was left in between them for shipping to pass up to Exeter. It was this weir that gave its name to the village of Countess Wear. Hugh de Courtenay, who succeeded to Isabella's title and possessions stopped up the gap in 1311 and prevented ships and boats from reaching the city at all. Traders were forced to unload at the earls new quay at Topsham, store their cargo in his cellars, to his great benefit.

The rich salmon fishery of the city was injured, the tide no longer came up to Exeter as it used to and the merchants cellars were empty. There was continual friction between the Courtenays and the city over the loss of navigation and despite many petitions nothing seems to change the situation for over a century.

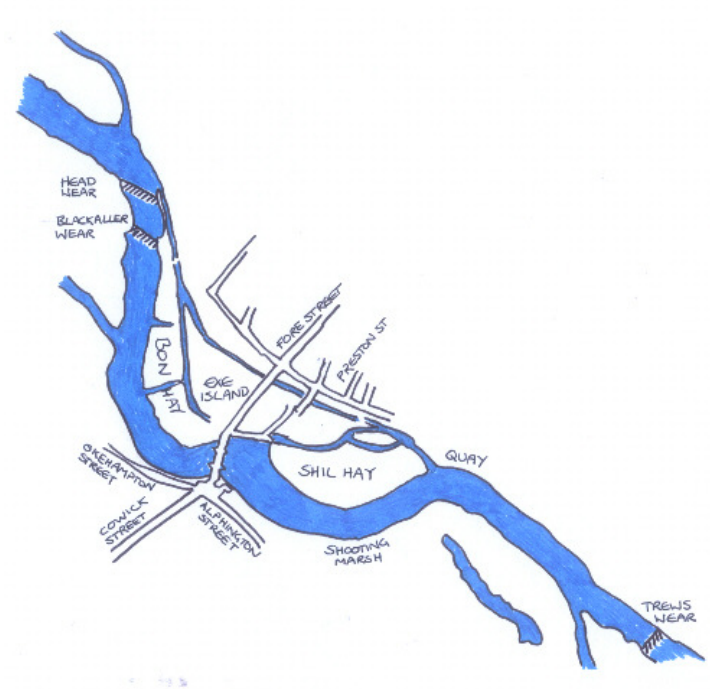
Then in 1538 the head of the Courtenays, Henry Marquis of Exeter was executed for alleged conspiracy against Henry VIII. The Courtenays lands were confiscated by the Crown and their influence ceased abruptly.

The city fathers obtained an act of parliament in 1540 to set about clearing and reopening the river to some means of navigation. Unfortunately all their efforts failed as the river was so silted up. In 1550 Edward VI gave Exe Island back to the city and by 1563 it was decided that a canal, bypassing all the obstacles in the river was the only solution. Constructed under the supervision of John Trew the canal was opened to shipping in the autumn of 1566. The canal was not very satisfactory but it was a start in the struggle to re open Exeter as a port.

Trews weir - then called St Leonard's weir was built in 1564 when construction of the canal was started. Blackaller weir - then Callabere weir- is somewhat older.

In the late 1600's the canal was extended and deepened to take ships of up to 150 tons. The quay was also extended to its present length and the Custom House was built. Daniel Defoe notes in about 1714 that ships
could now come right up to the city, loading and unloading there.

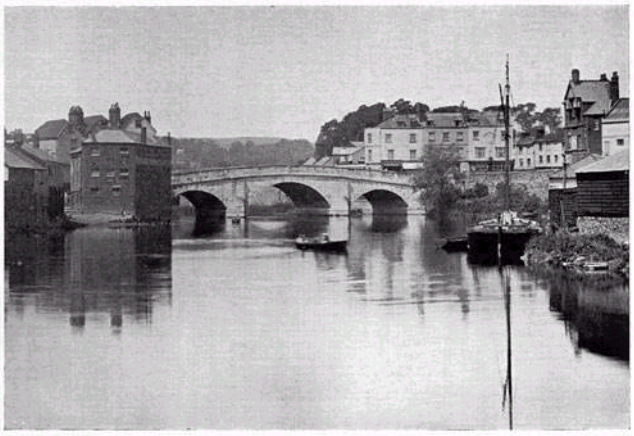
Custom House KH



River Exe 1792
After Charles Tozer in 2000 Years in Exeter WG Hoskins

Exeter had great trade with Holland (cloth) Portugal and Spain (wine) and Italy. There were German, Dutch and Swiss merchants living in the city which was flourishing at this time. A new Exe Bridge on a different line from the old, was finally opened in 1778 after its original foundations were destroyed by flood in 1775.

The city walls were breached so as to make a new direct approach to the bridge, this was New Bridge Street.



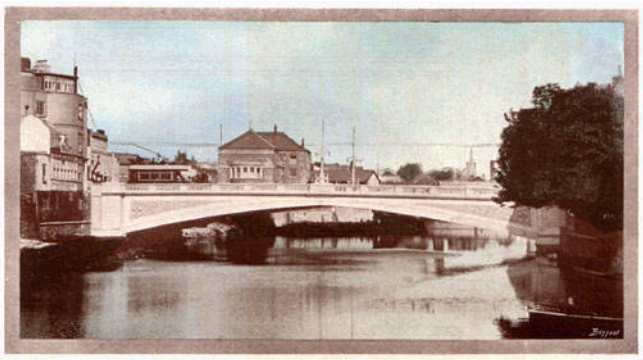
The Georgian Exe Bridge looking north.
Completed 1778 Thanks to www.exetermemories..co.uk for use of this photograph

As trade continued to grow and Exeter was one of the largest and richest towns in England. A canal basin, known as New Cut was constructed in 1830 for larger ships which couldn't reach the old quay. Around this time the imposing quay side warehouses were built.

In 1844 the railway reached Exeter and trade was increasingly carried by Brunel's Great Western Railway. The basin was linked by rail to the main network in the 1860's, the remains of a railway turntable survive. However large debts had been accumulated by the city authorities on extending the canal, quay and basin, and the loss of trade to the railway inevitably led to a slow decline.

In 1905 there was a new Exe Bridge.

It was a stronger and flatter cast-iron bridge built on the same site as the old Georgian bridge.



1905 Exe Bridge made of cast iron

Thanks to www.exetermemories..co.uk for use of this photograph

The River Exe froze over in the winter of 1917. The ice being thick enough to support many people slithering or skating under the Exe Bridge.

The city was expanding and more houses and businesses were built onto the reclaimed marsh areas. Unsurprisingly there were at least five floods between 1917 and 1952 in Exwick, Cowick Street, St Thomas and other areas to the west of the river.

On 27th October 1960 an area west of the Exe from Exwick to Marsh Barton, including most of St Thomas suffered a massive flood. More than 1000 properties were damaged. Following very heavy rainfall water rushed down between the banks of the Exe and overflowed the river from above Exwick down through St Thomas and towards the low lying parts of Alphington. While the western side that took the brunt of the flood water St Davids Station was also flooded on the east side of the river.

Exeter, 1960, the River Exe diverts down Okehampton Street
Photograph used by kind permission of The Environment Agency ©

The water rose to around 2 metres in Station Road, Exwick and flowed along the west side of the railway embankment, over the Exwick playing fields, along Western Road, Okehampton Street, Cowick Street, the rugby ground, Haven Banks and Alphington Road.

Just five and a half weeks after the October flood, just as things were beginning to dry out, there was further heavy rain fall which swelled the river waters. On Sunday, 3 December there was another flood damaging 1,200 properties.

As the houses were built on the rivers natural route when it was at maximum flow something had to be done with the river to avoid a further catastrophe.

In 1962, after exploring several options it was decided to improve the river channel and build relief channels. It was calculated that such a scheme would withstand the huge increase in river flow after heavy rain. The work was

carried out in stages to spread the cost over several years. A large model was constructed at the Hydraulics Research Station at Wallingford, Oxfordshire and measurements made to ensure that the water flow could be managed.

In 1965, work started on the scheme by the Devon River Board and over the 12 year construction period the Devon River Authority and then South West Water took over the stewardship of the project.

Exe Bridge North KH

In 1969 the next new Exe Bridge was completed, this is the current north bridge. The south bridge followed in 1972 and the 1905 bridge was demolished. These twin Exe Bridges are uncompromisingly functional, built out of concrete they also form between them a large roundabout system. The piers have been designed to aid the flow of water during flood and the banks of the Exe have been concreted, also to aid water flow. There are parts of the Georgian or 1905 bridge left. Many houses and businesses were demolished around the bridges, opening up the area.

Remains of the
Georgian Bridge K

In 1972 the river acquired a wider audience. The BBC used Exeter quay as a location for their drama, the Onedin Line. The quay was used extensively to resemble 19th century Liverpool.
Much of the quay area has been regenerated and it is a popular destination for tourist and locals alike.


Quayside KH

The Maritime Museum housed at the canal basin has come and then gone. The quay no longer receives shipping along the canal and the boats now landing the 16th century quay are mostly canoes.

This Brief history of the River Exe draws heavily on

Two Thousand Years in Exeter WG Hoskins pub; Townsend 1963

Additional information comes from the local history section of
www.exeter.gov.uk and from **www.exetermemories.co.uk**

Symbolism

The river is often seen as a metaphor for life. A river is a temporary identity for water, a phase in the water cycle: sea-cloud-rain-river-sea. A river is formed by an ancient relationship of earth and water. Each raindrop follows a course dictated by a million previous raindrops. It is essentially a history as it's never the same water, but it follows the same course.

Our lives too are a predictable journey: conception (sea); pregnancy (rain clouds); birth (source); youth (the stream on Exmoor); maturity (the river flowing through the city); old age and death (the estuary). Because the sea is both the beginning as well as the end the metaphor is sometimes ultimately consoling either as:

'.... even the weariest river
Winds somewhere safe to sea'
A. C .Swinburne 'The Garden of Persephone'.

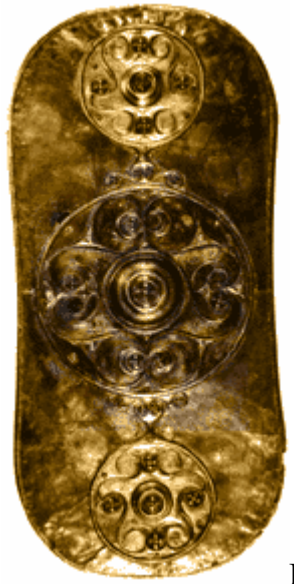
Or as a beginning, a return to the source:

'What we call the beginning is often the end
And to make an end is to make a beginning.
The end is where we start from.'

T.S. Eliot 'Little Gidding', Four Quartets

Perhaps similar thoughts were with the ancient Celts. In Celtic Times, rivers and lakes were associated with divinities, and the river itself was seen as sacred. Because of this, offerings were made, sometimes extraordinarily elaborate and expensive ones.

The Thames has been particularly rich in examples like the superb Battersea Shield -pictured.



Battersea shield

It is likely the Exe will also have been a sacred river, but its course has changed so much over the centuries that any such offering will have been destroyed - or perhaps recovered long ago- by the many alterations and dredgings over the years .

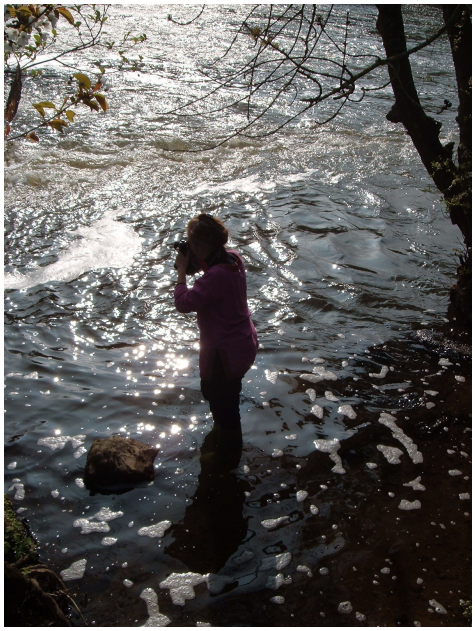
It is very unlikely that anything as magnificent as the Battersea shield is lying in the mud and silt of the River Exe still waiting to be found.

It is probable that the myth of King Arthur's Excalibur coming from and being returned to the water is a faint echo of these Celtic sacrificial offerings.

It was after a conversation with my partner about ritual river offerings and stories of King Arthur that life make one of it's little jokes.

My *EXE-calibur KH*

We were regretting that the course of the Exe has changed so much that finds like those from the Thames are unlikely here, though they may well have existed.



Karen in the River. M Learmonth

The next day I was taking photographs, standing in the river near head weir with my wellies on, when I felt an obstruction beneath the water. Plunging my hand into the water I retrieved - a child's plastic sword! A lost relic of the river as a summer playground, emerged.

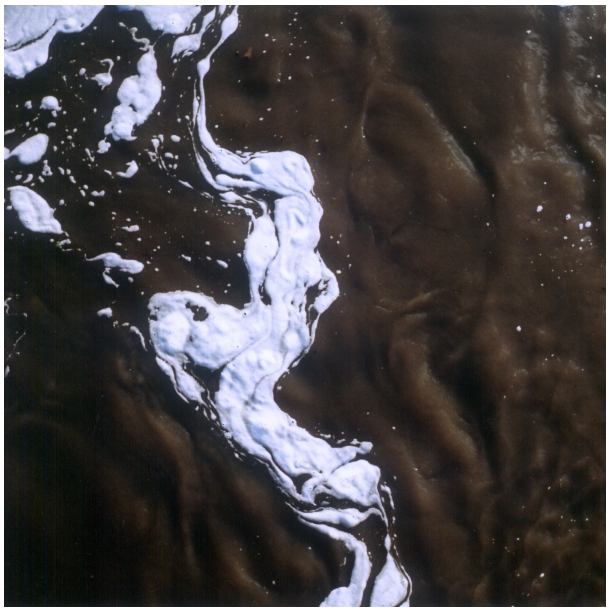
It was as if the river had given me my own 'EXEcalibur' not as the mighty sword of a warrior but as the mightier one of the imagination. And a reminder that the seriousness and lightness of making art is matched only by the seriousness and lightness of play.

Part of the magic of rivers started for me in childhood when I read and reread the Wind in the Willows:
'Never in his life had he (the Mole) seen a river before - this sleek, sinuous, full-bodied animal, chasing and chuckling, gripping things with a gurgle and leaving them with a laugh, to fling itself on fresh playmates that shook themselves free, and were caught and held again. All was a-shake and a-shiver - glints and gleams and sparkles, rustle and swirl, chatter and bubble. The Mole was bewitched, entranced, fascinated. By the side of the river he trotted as one trots, when very small, by the side of a man who holds one spellbound by exciting stories; and when, tired at last, he sat on the bank, while the river still chattered on to him, a babbling procession of the best stories in the world, sent from the heart of the earth to be told at last to the insatiable sea'.

Kenneth Grahame. Wind in the Willows.

I often feel like Mole because to make art you have to look at things like Mole, like a child, and see them as if it was for the first time. If you don't do this it's so easy to make assumptions about what's there and, not really seeing, you just walk by.

Flooding and flood relief



Fast flowing, silt laden, flood water

This EXE*hibition* focuses on the two mile stretch of the River Exe from just beyond St David's station to Trews Weir. This section of the river has been very much 'tamed' and is managed by the Environment Agency. Without their work St Thomas would still be prone to major floods. The River in this section

is contained from its determined course by the concrete of the flood channel and lacks the wildness of its beginnings on Exmoor or its end in the estuary. This 'domesticated' Exe gives the city an extraordinary and ever changing richness as it flows past the heart of Exeter.

To understand more about flooding the following extract is reproduced with kind permission from the Environment Agency.

Flooding

Author: Rachel Anning

Flooding is a concern for everyone because it can endanger both life and property. It can occur as a result of rivers or canals overflowing, tidal surges in estuaries and the impact of the sea directly on low-lying coastal land.

Flooding is a natural phenomenon and is inevitable. Some areas are more prone to it than others, especially river floodplains. Where flooding can't be prevented, the Environment Agency issues flood warnings and helps people to be prepared. The Environment Agency builds and maintains flood defences to protect against flooding. In 1960 the River Exe flooded the city of Exeter. Forty years later in the floods of 2000, the Exe spilled into a flood relief channel instead.

River channels can only carry so much water. Heavy rain or sudden snowmelt can cause rivers to rise to the point where they overflow. During a flood, excess water flows onto the low-lying areas on either side of a river – the flood plains. The periodic flooding of low-lying areas nourishes the soil, a benefit used by farmers for centuries.

The number of major flooding incidents varies greatly from year to year. The severe weather in November 2000 caused some places to flood for the first time in decades and York experienced its worst flooding for 400 years.

There is evidence that flooding comes in cycles and that over 70 years of data should be used to give a reliable estimate of trend. Peak river levels at the River Severn have been recorded for almost 80 years and show no increase in flood frequency despite recent severe events periodic flooding of low-lying areas nourishes the soil, a benefit used by farmers for centuries

Exeter, 1960.
The River Exe diverts down Okehampton Street

Development in the flood plain

In England and Wales, nearly 6 million people live in flood plains, which cover some 10% of the land. The construction of roads and railways and commercial and domestic development is often done in floodplains because it is relatively easier and cheaper to build there. In some areas, the rate of development on flood plains has more than doubled in the past 50 years.

Flood plain development reduces the space available to store and slowly transport floodwaters. This increases the speed at which floods move downstream and the maximum height that the flood will reach. In some cases the development can also act like a dam on the flood plain, increasing flooding upstream. Drainage systems and hard surfaces, such as roads and car parks, can also increase flooding by quickly transferring water from heavy rainstorms into rivers. The Environment Agency promotes the use of sustainable drainage systems in new developments to provide attenuation and storage and so reduce peak flows.

Any new developments on flood plains increase the risk and financial burdens for present and future generations. Risk is often most easily removed by not building in the flood plain. The Environment Agency advises local authorities on flood risk when planning issues are being considered.

Estuarine and coastal flooding

The risk of flooding on low-lying, open coastal areas is always present, but the frequency, extent and magnitude of flooding can be controlled to some degree. In estuaries, flooding can occur as a result of 'surges' due to the effects of atmospheric pressure on sea level, combined with the effects of high tides and high winds.

Flood defences

Flood defences are essential in some areas to protect human life. They also protect property, the loss of which can be both distressing and costly. However, protection by flood defences reduces, but does not eliminate the risk. The potential consequences of climate change for the UK include extreme weather conditions leading to more frequent floods. Storm damage may be more severe, causing increased erosion of coastal areas and higher maintenance costs for flood defences.

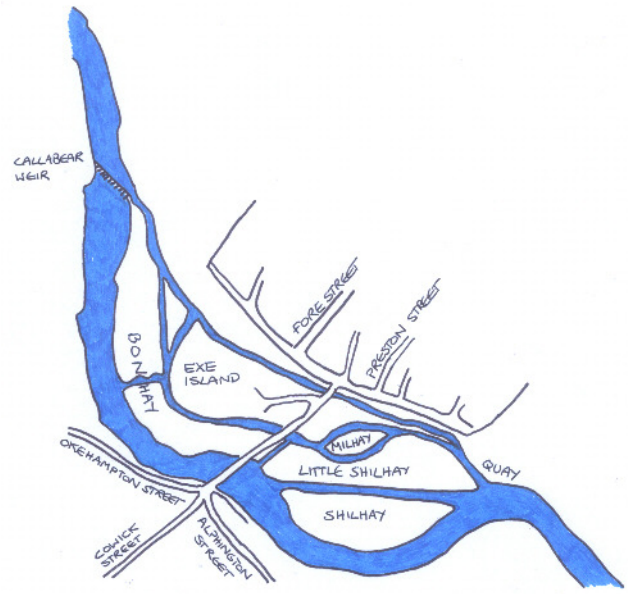
Flood defences
protect Exeter, 2000

The Environment Agency maintains 40,000km of river and estuary flood defences. These include embankments, flood walls, flood relief channels and culverts. Aerial imaging techniques such as 'Light Detection and Ranging' (LiDAR) produce pictures that can be used to predict the extent of flooding. These allow the Agency to effectively target flood defences and early warning systems.

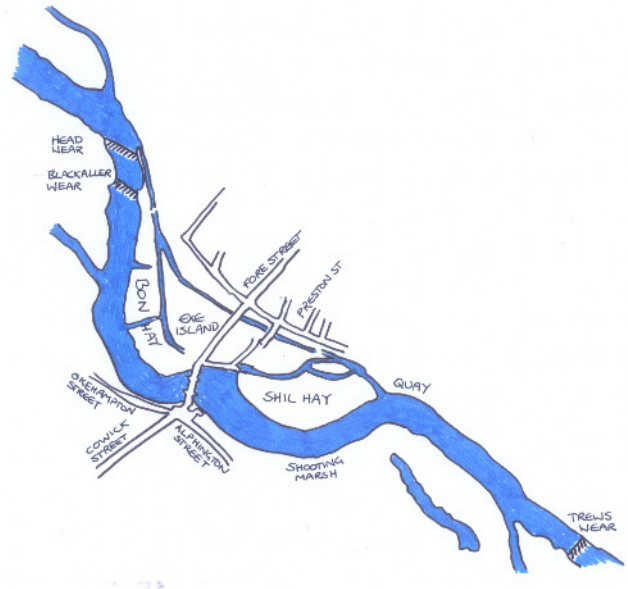
Author: Rachel Anning

Maps showing the River Exe at different times.

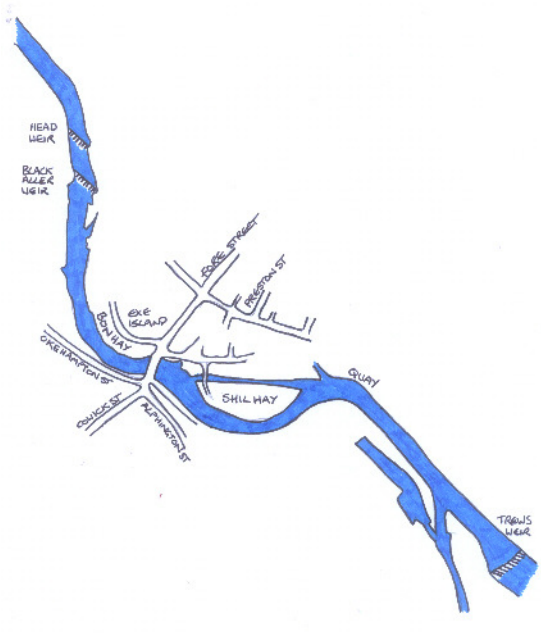
The river has been squeezed over time in order to gain land. This has resulted in intermittent flooding of buildings and roads built on the rivers natural flood plain and marshes. The flood relief work of the Environment Agency now contains and controls the flood potential.



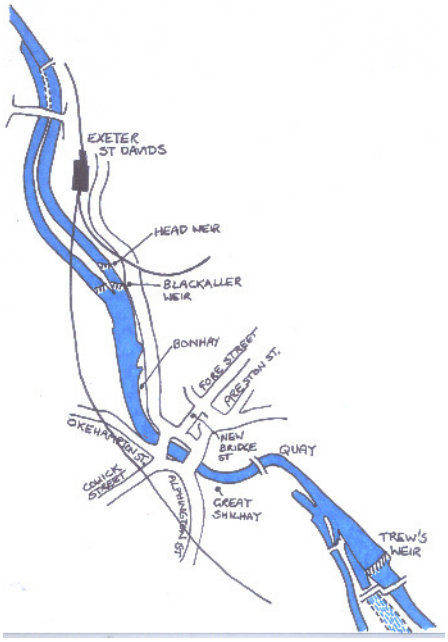
River Exe 1500 -1600
After Berezney after MacCaffrey in Stoyle, *Exeter City Walls*



River Exe 1792
After Charles Tozer in 2000 Years in Exeter WG Hoskins



River Exe
Between 1938 and 1942
After RH Dymond, City Engineer & Surveyor



River Exe
Contemporary late 20th Century after
Exeter Street A-Z Atlas