



AN ILLUSTRATED MAP OF

CAEN HILL FLIGHT

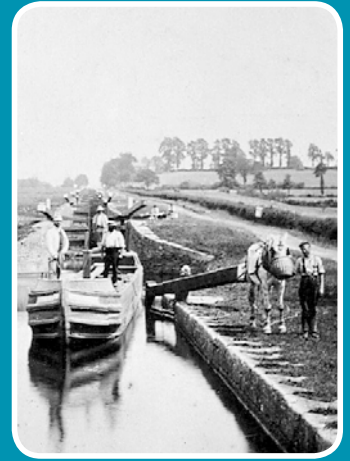


canalrivertrust.org.uk

Caen Hill – a very special place

When architect and engineer John Rennie recommended routing the Kennet & Avon Canal (K&A) through Devizes and then to Bath he had to overcome a major obstacle.

At Devizes the high ground of the Vale of Pewsey plunges 72m (237ft) towards the Avon valley within about 4km (2½ miles). In tackling this problem Rennie designed one of the wonders of the inland waterways.

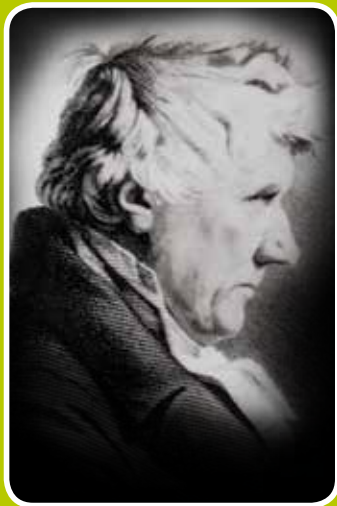


Caen Hill circa 1900

A giant's backbone or a staircase?

Caen Hill Flight was the last stretch of the K&A to be completed, in 1810. It forms part of the Devizes Flight of 29 locks. Shortly after its completion one writer observed that: "The succession of locks and ponds, between Devizes and Foxhangers, is a most curious and striking instance of the wonderful perfection to which the art of engineering has been carried in this country." (An extract from 'An Authoritative Guide to the Kennet and Avon Canal', 1811). Some people think that the lock flight resembles a giant's backbone. Others think it looks like a huge staircase marching up the hillside.

What do you think?



Issues, issues, issues

You have some important issues to consider. What is the best line through the hills and valleys? Where are the water supplies? Who are the landowners? What problems might be caused by the rocks under the ground? Where will the building materials come from? Your employers, the Western Canal Committee, are looking for a profitable investment!

You decide!

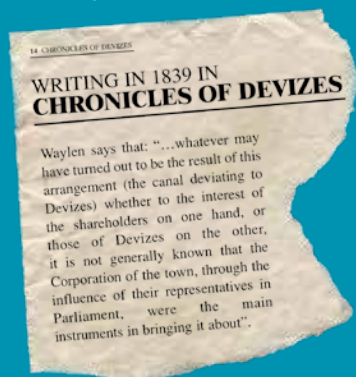
Should the canal go through Marlborough, following the River Kennet, or take a more direct route through Devizes? After your first survey you opt for the Marlborough route, because it provides gradual changes in height and has a more reliable water supply. The Committee's engineer, Robert Whitworth, challenges your proposal, claiming that there is insufficient water supply.

A few years later...

It's now 1793 and shareholders have raised sufficient funds to start work on the project. You are commissioned again to do a survey and asked to submit your findings via Robert Whitworth. This time you recommend the Devizes route, claiming that contrary to earlier findings, you now have doubts over the water supply on the Marlborough route.

Despite needing to construct a 4,312-yard long tunnel (final built length 501 yards—458 metres) and having to negotiate a dramatic change in height between Trowbridge and Devizes, you estimate a saving of £20,000 and a reduced construction time of about two years.

The news report below provides an additional view on why the route was changed.



© Terry Hewett

Whose line is it anyway?

Why bother with such an ambitious and expensive feat of engineering? Wasn't there an alternative route?

To answer these questions, you need to travel back in time.

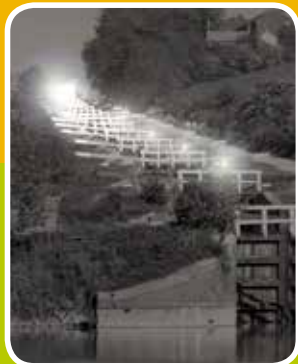
Try for a moment to imagine that you are John Rennie – a well-educated, 30-year old engineer and architect. It's 1790 and you've been commissioned to survey a proposed route for the K&A.



Proposed and revised route for the K&A Canal

Brick or stone?

Locks were time consuming and expensive to build. They required large amounts of brick, stone and wood and a lot of people to dig, transport and construct. At Caen Hill, the dramatic change in the height of the land meant 16 locks needed to be built in close succession. That's a lot of bricks! Fortunately there was a good supply of clay nearby.



A flight with lights

Between 1829-1843 the flight was lit by gas lights. The canal company charged one shilling for each boat passing through during the hours of darkness. Lighting the canal enabled traders to continue operating through the night – cutting journey times and boosting profits for the canal company.

Looking back...

It is November 20th, 1803, and John Rennie (the engineer who designed the Caen Hill Flight) writes: "There is good clay for bricks west of Scots House and there is an abundance on the face of Devizes Hill. I think 3½ or 4 millions may be made at these places in the course of the ensuing season."

Bricks for the Caen Hill Flight were made from gault clay dug locally on the hillside between the towpath and the main road.

Tramways and traders

A horse-drawn tramway once operated between Lower Foxhangers and Devizes. It linked the east and west sections of the canal until work on Caen Hill Flight was completed.

Can you imagine how frustrating it must have been as a boatman to offload your cargo (anything up to 70 tons) onto the tramway and reload at the other end?

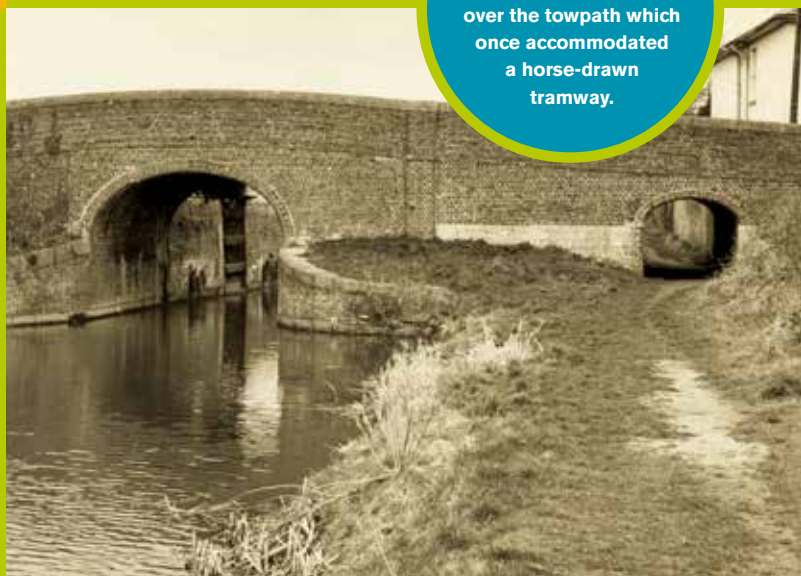
Looking back...

It is March 22nd, 1803, and following an inspection of the tramway, John Rennie notes that it is: "...in general badly formed and the rails are badly laid. The sleepers are of wood but are too narrow...the waggons are in general badly formed ... and ...are so large and clumsy that they are a load for a horse themselves".



Loading grain at Devizes Wharf 1901

All four bridges crossing the Devizes Flight have a small arch over the towpath which once accommodated a horse-drawn tramway.



How Locks Work

Locks are used for moving boats up and down hills

1

The boat enters the lock chamber through the open lower level gates.



2

The gates are closed and water is allowed into the chamber via a sluice or 'paddle'.



3

When the water levels have equalised, the upper level lock gates are opened and the boat can move out of the lock.



NB. To move downhill, simply reverse this sequence.



Restoring the gate for Lock 22 in Devizes, 1990

Kennet & Avon Canal

A brief history

The K&A is actually three waterways. In the west is the Avon Navigation linking Bristol and Bath. In the east is the Kennet Navigation running between Reading and Newbury. The 92km (57 mile) artificial cut in the middle, the Kennet & Avon Canal proper, connects Bath and Newbury. The K&A Canal Company operated all three waterways as one commercial enterprise until 1852.



© Terry Hewlett

Hostile takeover

In 1852 the Great Western Railway Company (GWR) bought the canal. As steam travel became faster and more reliable, trade on the canal declined. GWR barely maintained the canal in a navigable condition as its main concern was to promote rail travel. In 1947 the railways and canals were nationalised.

Back from the brink

By 1955 the canal was in very poor condition, and the British Transport Commission was ready to abandon it. Closure was narrowly averted by strong public opposition, mainly through a group of canal traders and enthusiasts from the K&A Association (which later became the K&A Canal Trust, formed to conserve the canal).



© Caroline Robson

Yours to enjoy

Today, after more than four decades of restoration, the canal is once again open for business – albeit business of a very different kind from its industrial origins. Pleasure boating, fishing, walking and cycling, the canal has something for everyone. Wildlife is also thriving.

Mr Crouch, Lockkeeper Lower Foxhangers 1890s

"It's more than just opening and closing locks this job! There are real problems with water running short when it gets busy, and I have to keep the Inspector informed of any problems.

Wages aren't great and some of my colleagues have been known to make a small charge to passing boats! The company doesn't look too kindly on that sort of thing though. I got a memo from the company the other day saying how we are to stop rowing boats and other pleasure craft from using the canal on a Sunday."



Go with the flow

Locks are essential, they enable boats to travel up and down hills. Every time a boat passes through a lock, it uses about 1,000 bath-fulls (270,000 litres) of water. So, in order to work properly they need a constant supply of water. Why not stand and watch a boat as it passes through a lock and note how and where the water moves?

In at the top

The main water supply for the K&A (apart from rain) is pumped from Wilton Water into the canal's summit level near Crofton, about 32km (20 miles) away. The summit pound (a stretch of water between two locks) holds the principal supply of water for the canal. Each time a boat passes through the summit, water descends through the chain of locks and pounds on either side.

The long, the short and the bit on the side

Locks either side of a long pound have plenty of water to replenish them each time they're used. Problems arise when the canal has to go up or down a steep hill, because the pounds get shorter. This is where the side pounds at Caen Hill come into play. Each side pound stores the equivalent to two Olympic-sized swimming pools worth of water. Without side pounds between each lock, the canal would simply drain itself of water.



Open all hours?

Despite the side pounds, periods of drought and heavy use in the canal's early years meant that boats wanting to use the Caen Hill Flight had to book their passage. Today, the flight is kept open (according to a seasonal schedule) even during the busiest times. This is done by using powerful pumps known as back pumps to return water to the top of the flight.

A big helping hand

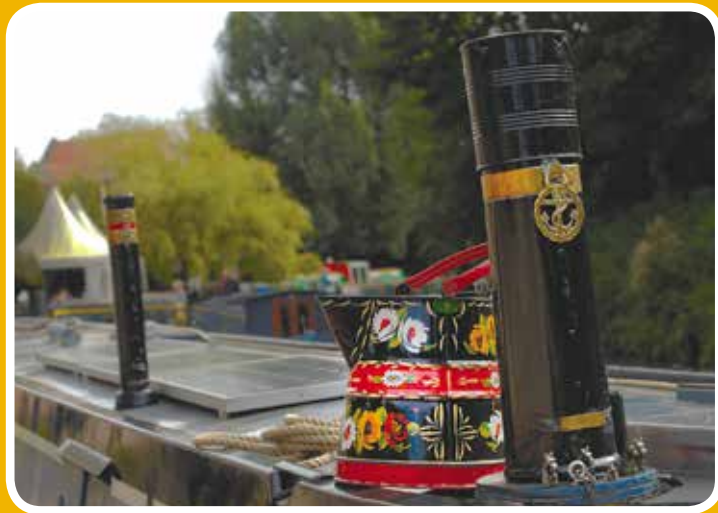
Before the arrival of railways and properly surfaced roads, inland waterways ruled. All over the country canals were being built and trade flourished. How else could you transfer 60 tons of coal, grain, stone or any other cargo in one go?

Once steam locomotives and motor vehicles came on the scene it was not long before trade on the canal declined. Caen Hill Flight had fallen into a very poor state of repair and was closed to boat traffic in 1951.

It was gradually brought back to life through the dedication of volunteers and financial input from the Kennet & Avon Canal Trust, working with the then canal authority British Waterways and the riparian councils. It received many large donations plus, at the time, the largest Heritage Lottery Fund grant ever awarded.



Kingfisher



© Terry Hewlett



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Mr Dickinson, boatman, 1855

"Time was when we could afford a paid crew, now it's all hands on deck for the family. Living together on this boat isn't much fun – that tiny cabin is real cramped.

I don't much care for this bit of the journey, it's a few stiff hours to the top of the flight I'll tell you. It doesn't help either having to unhitch our horses every time we go under those damned road bridges. My father used to tell me how there was once a tramway here, before they built any of this.

Still, I don't understand why they had to build the canal down one of the steepest hills for miles around."



© Terry Hewlett



Caen Hill Walk

Explore the Caen Hill Lock Flight and Caen Hill Diamond Jubilee Wood, planted in 2012 to celebrate the Queen's Diamond Jubilee.

Walk up the locks towards Devizes until you reach Lock 44 where you will find the Caen Hill Café. To return, cross the canal at Lock 43 and walk down the grassy path to Lock 29 where you can cross back to re-join the main path. Alternatively, at two points along the grassy path you will find steps down into Jubilee Wood where you can enjoy a stroll along many paths.

Key

- 1 Caen Hill Lock Flight
- 2 Caen Hill Diamond Jubilee Wood
- 3 Canal & River Trust Depot
- 4 Caen Hill Café

- towpath
- Jubilee Wood walk
- entrances to Jubilee Wood
- café
- picnic area
- toilets
- parking

Caen Hill Lock Flight and Caen Hill Diamond Jubilee Wood



Canal & River Trust

The Canal & River Trust cares for 2,000 miles of canals and rivers across England and Wales. We are passionate believers in using the power of these waterways to transform places, and enrich lives. We want to see every waterway used to its full potential, and every place changed for the better by the waterway that runs through it.

Through our work we are helping people live healthier, connected, more sustainable, and richer lives. Every year, around 15 million people visit our waterways, we inspire 38,000 children through our out-reach work, and we enable over 6,000 volunteers to make a positive difference in their local community.

Our waterway network is a 200-year old national treasure. It makes people's lives better and we're here to make sure it can be loved, used and enjoyed forever.



Canal & River Trust

With your support we can protect our waterways forever. Visit us at canalrivertrust.org.uk/friend and become a Friend today.

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Follow the TOWPATH CODE

Towpaths are for everyone to enjoy. This code is a common sense guide to sharing the towpath and what to expect of others.

Share the space

- towpaths are popular places to be enjoyed by everyone. Please be mindful of others, keep dogs under control, and clean up after them.

Drop your pace

- pedestrians have priority on our towpaths so be ready to slow down; if you're in a hurry, consider using an alternative route for your journey.

It's a special place

- our waterways are a living heritage with boats, working locks and low bridges so please give way to waterway users and be extra careful where visibility is limited.

To find out more about shared use on towpaths visit: canalrivertrust.org.uk/bettertowpaths

The car park for Caen Hill is signposted from the A361 west of Devizes

Written, designed and illustrated by Imagemakers (imagemakers.uk.com)
Photographic references: Kennet & Avon Canal Trust Archive, Canal & River Trust, Terry Hewlett, Caroline Robson

Registered Charity Number 1146792

