

Navigating the Cambridge Backs



In association with the
Conservators of the River Cam



Introduction

The Backs, behind several of the Cambridge colleges, offer one of the quintessential views of Cambridge, and in the winter season¹ when punt traffic is not so heavy, the Conservators of the River Cam allow powered craft access to the head of navigation at the Mill Pit.

The Backs were not always so heavily landscaped and manicured. The river itself was an important route for transporting goods to the mill at Silver Street. Because many of the College buildings abut the river bank to the water's edge, a continuous towpath could not be maintained along the course of the navigation. Instead, a cobble causeway was laid down the centre of the river. Hauling horses waded chest-deep through the water, pulling barges and lighters to their unloading points.

Today, the Backs are heavily used by punts, operated either by professional chauffeurs, or hired out to tourists. In the summer, the river is extremely busy with punting traffic, and it is nearly possible to walk from one side of the river to the other across punts. However, the traffic dies down during the winter, and so powered craft are allowed access – but there is still some activity, particularly when the weather is pleasant, so navigators need to be cautious.

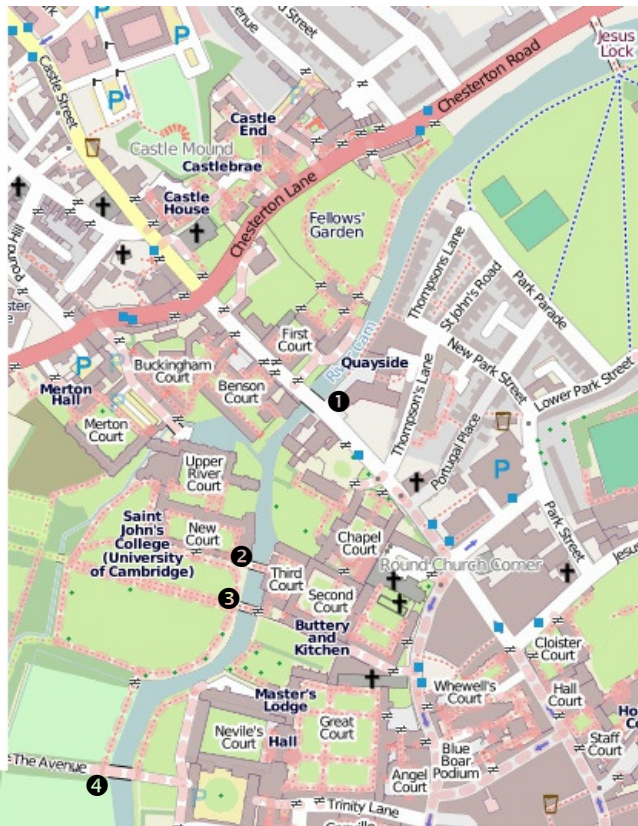
There are a number of bridges to be negotiated. It is essential that you know the air draft of your vessel before proceeding above Jesus Lock.



King's College chapel, and Clare College, viewed from a narrowboat in the evening

¹ Between 1st October and 31st March

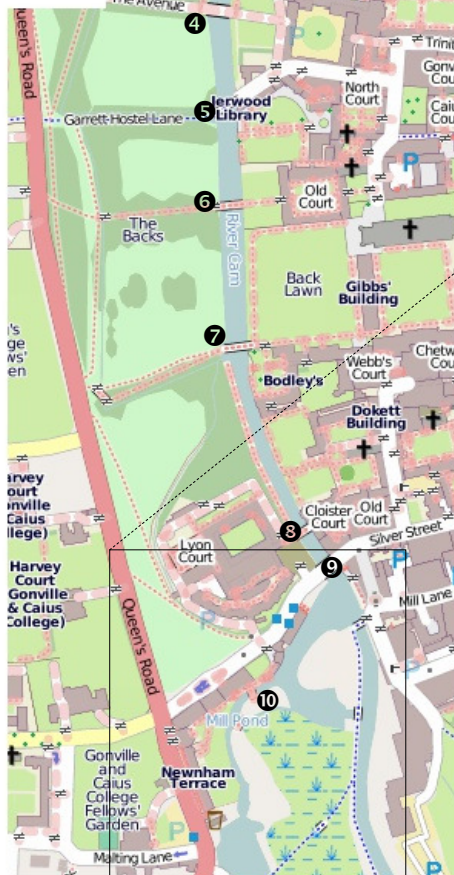
Map



Bridge headroom clearances*

1. Magdalene Bridge 2.14m / 7'
2. Bridge of Sighs >2.8m / 9'2"
3. St. John's Kitchen Bridge 2.08m / 6'9"
4. Trinity Bridge 2.8m / 9'2"
5. Garret Hostel Lane bridge >3m / 9'10"
6. Clare Bridge >2.8m / 9'2"
7. King's Bridge >3m / 9'10"
8. Mathematical Bridge >2.7m / 8'10"
9. Silver Street Bridge 2.62m / 8'7"
10. Darwin footbridge 2.17m / 7'1"

* at normal river retention level



Access

Access to the Backs has to be pre-arranged with the River Manager, giving 48 hours notice of your intent. This is so the punt companies and operators can be pre-warned of your passage.

Access is permitted from **1st October until 31st March**.

Daytime visits are permitted only for safety reasons. Mooring is prohibited at Laundress Green at the head of navigation.

All vessels must abide by COLREGS, keeping to the right hand side of the navigation lane unless signage indicates otherwise.

Periodically, the Conservators lower the river level along the Backs to permit civil engineering works to buildings and retaining walls. At these times navigation is impossible. To avoid disappointment, contact the Conservators well in advance of your intended visit.

Contact the Conservators:

Office telephone: 01223 863785 (Mondays to Fridays, 9am to 5pm)

Out of hours: 07802 862711 (River Foreman)

Email: river.manager@camconservators.org.uk

Website: www.camconservators.co.uk

Equipment

You are recommended to carrying the following items:

- mobile phone (fully charged)
- adequate length of mooring lines
- side fenders
- a boat hook or quant pole
- mud weight or anchor
- sufficient fuel for the journey and a pollution spill kit
- camera

For safety reasons, we recommend that you do not attempt this journey single-handed and that you station a lookout at the bows. Your vessel must be capable of forward and reverse propulsion.

Jesus Lock



Jesus Lock is a Grade II listed structure built of Cambridge brick ca. 1836. Access is by appointment with the River Manager. The lock has manually operated V-doors and paddle (slacker) gear at both ends, unlike the two other locks on the Cam. The paddle gear spindles fit a standard windlass, or you may make use of a windlass that is provided by the Conservators (the code for the combination lock securing it to the v-door will be provided upon request). In order to access the far side of the lock, there is a swinging footbridge. This is also secured with a combination padlock. You must ensure that the swingbridge is stowed parallel to the lock edge before entering the lock. Access to the lock island is strictly for navigators and authorised persons only. Keep away from the Environment Agency's sluice gates. The currents below the sluices and weir are highly dangerous. The gates adjust automatically and they may move without warning.

Although the width of the lock between the gates is 3m / 9'10", the lock pen itself is over 4m / 14' wide, and two narrowboats of 6'10" beam can share the lock if side fenders are lifted.

Hazards

The four main hazards are punts, depth of water, river flow conditions and bridge heights.

Punts

The punts are a particular hazard. Any narrowboat or powered craft, even in tickover, is often faster than most punts, and as a result, you may find yourself having to go into and out of forwards gear, if following a punt at their slow pace. Punts, particularly those hired by members of the public, can be very erratic in their steering. They may veer unpredictably as the novice punters try and propel their craft and make corrections to avoid falling in. Punts also have no means of stopping and frequently collide with each other and with the riverbanks.

The professional punters, often in larger “ferry punts”, tend to stick to the middle of the river, where the remains of the causeway allow a more solid push from the pole. Although the chauffeurs like to use the central bridge arches, they will generally give way to narrowboats.

Be aware of the punts around you. Post someone on the bow of your boat to warn the helmsman of any punts which might stray into any blind spots.

Generally, take care and move slowly. Assume that any punt you see may veer in front of your bows. Be ready at all times to use reverse gear to avoid a collision.

Most punters will not understand sound signals. The Colleges may also object to any excessive noise. If vessels do touch, try to resolve the situation amicably.

Depth of Water

The river is generally at least 1m / 3' deep and draft is not normally a problem. However, there are particular shallow spots, particularly around the Mill Pond area; these are marked on the map on page 3 in blue. There is a sand/silt bar across the turning point or winding hole. Depth is greatest across the mid-point of this bar. If you run aground, it is often worth reversing and trying again.

It is not advisable to navigate down the Mill Pond arm towards the Granta Punt Station. The footbridge to Darwin Island is only 2.17 m (7 ft 1 in) high. The backwater arm itself is deep enough but the basin is silted up to 60cm / 2' depth and there are a number of punts moored beside the Granta public house. Turning around is not possible there.

Flow conditions

Flow varies on the Cam and at certain times, flow can become hazardous, particularly in the winter season following heavy rainfall. Passage should not be attempted if there is a moderate stream flowing due to reduced aircraft underneath the bridges and difficulty in maintaining steering control. The Environment Agency displays information on river status for Jesus Lock and Byron's Pool, the control structure south of the City, at these links:

Jesus Lock, Cambridge (station 6192):

<http://www.environment-agency.gov.uk/homeandleisure/floods/riverlevels/120729.aspx?stationId=6192>

Byron's Pool, Trumpington (station 6191):

<http://www.environment-agency.gov.uk/homeandleisure/floods/riverlevels/120729.aspx?stationId=6191>

Currents below King's Mill Weir at the head of navigation may deflect your craft when turning (winding). Be mindful of the potential for being swept onto the moored punts at the station there.

There is no formal 'strong stream warning' system in place on the Cam at present. This advisory service for boaters is under development with the Environment Agency. Telephone the River Foreman ahead of your passage to confirm that flow rates will be acceptable and safe for your type of vessel. At all times, be mindful that debris may be entrained in the currents which could foul your propeller. The Cam Conservators will act upon any reports of submerged obstructions or hazardous debris (telephone numbers given above).

Bridge Heights

The 9 bridges that cross the river at the Backs can be challenging to navigate. Removing chimneys, plant pots, etc. from the roof of your boat is extremely advisable! Information is given on each bridge, and how to approach, it in the following section.

1. *Magdalene Bridge* 2.14m / 7'



This is the first bridge that you will encounter. It is a Listed structure, constructed of wrought iron. Keep to the centre as best as possible, close to the moored punts at the station to your left as you head upstream.

2. *Bridge of Sighs* >2.8m / 9'2"



This is one of the most beautiful bridges along the Backs. The span is wide and headroom is not a problem.

3. St. John's Kitchen Bridge 2.08m / 6'9"



This is the lowest and most challenging of all the bridges. Headroom at the apex of the largest middle arch is 2.08m / 6'9". The curvature of the arch constrains the width available. You must ensure that your vessel is aligned dead-centre before proceeding. For reference, the narrowboat in the picture has an air draft of 5'6". On the return passage, the entrance to the bridge arch is blind. Take especial care.

4. Trinity Bridge 2.8m / 9'2"

This is the second lowest bridge. The centre arch is navigable.



5. Garret Hostel Lane bridge >3m / 9'10"



There is plenty of headroom underneath this modern concrete bridge. Punt traffic can be particularly heavy in this area. Be wary of punts pushing out from the slipway or from Trinity College Staithe into your path. This bridge offers the only public right of way across the Backs and it attracts numerous tourists and 'gongoozlers'. Be prepared to exchange friendly comments!

6. Clare Bridge >2.8m / 9'2"



This is the oldest surviving bridge over the Cam. The rest were destroyed during the Civil War. The bridge features stone balls. Don't believe the punt tour guides' tales about the missing segment of one of the balls – there was originally a wedge of stone that filled the gap which fell out.

7. King's Bridge >3m / 9'10"



Again, there is plenty of headroom under this single-span bridge.

8. Mathematical Bridge >2.7m / 8'10"



There is plenty of headroom at this bridge, built not by Isaac Newton but by Etheridge in 1749.

9. Silver Street Bridge 2.62m / 8'7"



Although headroom at the centre of this bridge is not a problem, you will need to complete a 90 degree turn immediately after the bridge. The moored punts make this manoeuvre quite challenging. Move as far to the left hand side as possible, and start your turn under the bridge. Be very wary of punters coming around this blind corner; sounding the horn is advised. There is a punt station (Cambridge Chauffeur Punts) to your right as you continue upstream.

At the Mill Pit which marks the head of navigation the river is wide enough to accommodate the turning of a 72' vessel. Turn to port as soon as you are clear of Silver Street bridge, then put the engines astern to reverse your vessel alongside the opposite bank. Allow the water coming over the weir to carry the bows around.

Bishop's Mill Sluices have been fitted with flow deflectors which can be lifted to create a training 'play wave' for members of Cambridge Canoe Club. During training sessions, turbulent flows can be enhanced downstream of the sluices. You may also see Cambridgeshire Fire & Rescue Services personnel using this area for water rescue training.

On your return passage, note the plaque on the bridge commemorating the tercentenary of the Cam Conservators (1702-2002).

Mooring

Moorings at Jubilee Gardens above Jesus Lock are reserved for residential boaters who have been issued with an annual Mooring Permit issued by Cambridge City Council. All of the riverbanks along the Backs are private College property. Mooring is strictly prohibited. Cambridge City Council owns and maintains the park at Laundress Green at the head of navigation. Mooring is not permitted here but there is sufficient depth alongside the riverbank downstream of the sluices to moor temporarily to visit the weed hatch, etc. Visitor moorings are provided at Jubilee Gardens downstream of Jesus Green Sluices and at the Fort St George public house, Midsummer Common.

Incidents and accidents

If you happen to be involved in an incident or accident, contact the River Manager immediately giving details of the nature of the incident, your location and a description of any other vessel(s) involved.

Contact Numbers

Conservators of the River Cam – River Manager – 01223 863785

Conservators of the River Cam – River Foreman – 07802 862711

Cambridge City Council – 01223 457000

Scudamore's Punting Company Ltd – 01223 359750

Trinity Punts – 01223 338483

Cambridge Chauffeur Punts – 01223 359299

Granta Boat & Punt Company - 01223 301845

Further Information

<http://nbluckyduck.blogspot.co.uk/search/label/Backs>

<http://www.camconservators.co.uk/navigation.html>

<http://patienceafloat.blogspot.co.uk/search?q=backs>

“Boating the Backs”, *Canal Boat Magazine*, November 2010.

“University Challenge: Cruising Cambridge’s Backs”, *Waterways World*, July 2011.