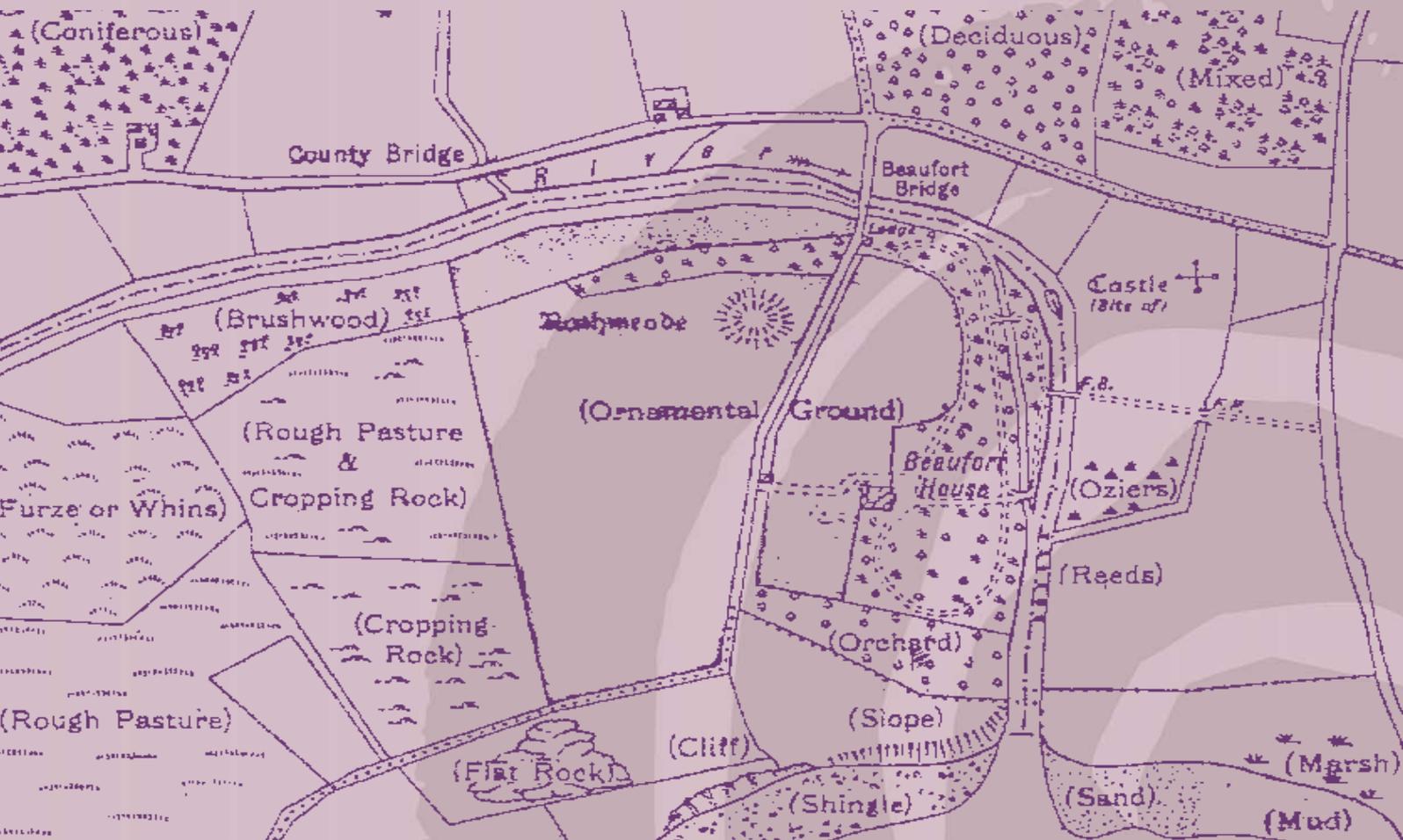


Sources

LESSON 1

Mapping the Past



ARCHAEOLOGY
time in transtion

IT'S ABOUT TIME 2

**Aim(s)**

To highlight the six-inch map as a major resource for local history studies.

**Objective(s)**

- To allow the students explore six-inch Ordnance Survey (OS) maps and identify various features including archaeological monuments.
- To enable the students to study the six-inch map for their own area.

**Time Period**

19th and 20th centuries.

**KEY INFORMATION****Lesson**

- The original six-inch Ordnance Survey maps were made in the early 19th century. These were the first accurate and detailed maps of the entire country. They are printed at the scale of six-inches to one mile.
- There are three editions of these six-inch maps:
1st edition: 1825-40; 2nd edition—from the 1850s; 3rd edition—from the 1890s.
- These OS six-inch maps are a valuable source of archaeological and historical information.
- The OS six-inch maps are a primary source for locating archaeological monuments.

Context

- The primary source used by archaeologists when conducting an archaeological survey are the three editions of the OS six-inch maps.

**METHODOLOGY & MEDIUM**

- Instruction
- Discussion
- Active participation
- **Worksheet 1a** Looking at Six-inch Ordnance Survey Maps
- **Worksheet 1b** Study Area
- **Worksheet 2** 1st (1842) Edition 6" OS Map of Study Area
- **Factsheet** Key to Symbols Used on the 6" Ordnance Survey Maps
- **Student Handout** The Ordnance Survey

**SECTIONS**

Section 1 The Map Makers

Section 2 Taking a Closer Look—Map Reading

Section 3 Feedback and Discussion:

- Part 1: Roads, Heights and Contours
- Part 2: Houses and Boundaries
- Part 3: Archaeological Monuments



Key Question(s) How and why were the first six-inch maps made?
Who made these maps?

The Ordnance Survey six-inch Maps

The Ordnance Survey (OS) was the official government map-making body. It was part military, part civilian and was established in 1791 to produce a detailed topographical map of Britain and Ireland within the framework of a scientific triangulation.

- Between 1824 and 1846 The Ordnance Survey mapped the entire island of Ireland to the scale of six-inches to one mile (i.e. six inches on the map represents one mile on the ground). This was an incredible achievement for that time—Ireland was the first country in the world to be completely mapped in such detail.
- Since then, the Ordnance Survey have continued to produce maps (see www.osi.ie).

Why these Maps?

After the Act of Union in 1800 Ireland became the direct responsibility of the British Parliament. It soon became apparent that without adequate maps the running of the country from Westminster would be very difficult.

- Of particular concern was taxation or ‘county cess’ as it was known. This was a tax on property, based on the extent of land ownership. By 1820 it was clear that without accurate maps this taxation was going to be very difficult to enforce fairly and effectively.
- Accurate maps would also be useful for the many new roads and other infrastructure projects being planned at the time.
- And, of course, good maps would greatly assist Crown forces with the security of the country, especially in remote areas.

What maps existed before the Ordnance Survey?

The first systematic mapping of Ireland was the Down Survey.

- Sir William Petty carried out this mapping between 1654-1659. The purpose of these maps was to show what land the Crown could confiscate after the suppression of the 1641 rebellion.
- In the 18th century professional cartographers carried out mapping for individual landowners. Thus a landlord who owned a large estate would have it surveyed at his own expense in order to have a proper representation of what he owned.

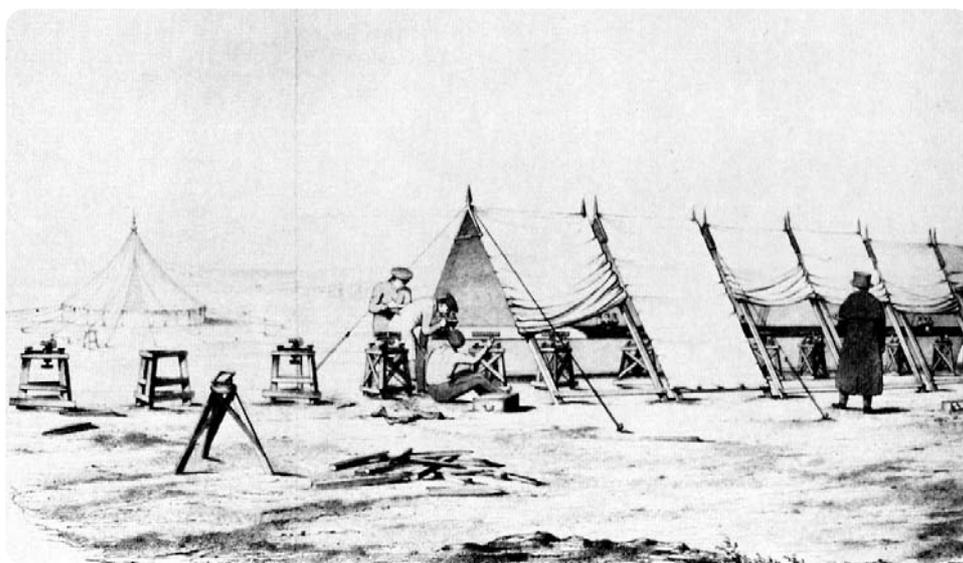


Unfortunately, the original townland and parish maps of the Down Survey were destroyed by a fire in the Surveyor General’s office in Dublin in 1711. Fortunately, a near complete set of the barony maps survived in the Bibliotheque Nationale in Paris. These are now an invaluable source for historians and archaeologists and copies are available in most county libraries. They show features such as townlands, houses, bridges and castles but lack detail like field boundaries.

How was the Ordnance Survey six-inch map surveyed?

The Ordnance Survey began their work of mapping the country from scratch.

- The first task was to establish a series of fixed points on the ground. These points had to be inter-visible so that the angle between them could be measured by a giant theodolite. This was an incredible feat as all the heavy equipment had to be hauled to the top of the mountains and often involved long stays on the mountain top due to poor visibility.
- Inter-visibility was a priority in choosing fixed points so many mountain tops were chosen. They were linked to form a series of 'triangulations' covering the country. These were linked to the triangulation of Great Britain creating a common baseline for the mapping of both islands.



Ordnance Survey base camp.



A theodolite is a surveying instrument for measuring horizontal and vertical angles, consisting of a tripod-mounted telescope that is free to move in both the horizontal and vertical planes. A more sophisticated version is still used today.

From this primary triangulation a series of 'secondary' triangulations were formed and from this framework the entire country was mapped. These triangulation points are marked on the OS maps as 'Trigonometrical Stations' using this symbol .



Key Question(s) How can we familiarise the students with the main features on an OS map?



Teacher Instruction

Distribute **Worksheets 1a, 1b** and **Factsheet** Key to Symbols Used in 6" Ordnance Survey Maps.

Worksheet 1b is an extract from 3rd edition OS six-inch Map 27, Co. Cork, dated 1930. Note: this area features in *Case Study* in **Lesson 2** of this Unit. (Students who have studied geography for Junior Cert. will be familiar with reading maps but they may not know all the symbols used on the six-inch maps.) A higher resolution of this worksheet is provided on this CD.

To familiarise the students with the map ask them to:

1. Find Ballyarthur Cross Roads (centre, bottom of map)
2. Follow the road north-west (top of map is north) to Ballynahow Cross Roads. Then eastwards over to Ballyvoskillakeen Cross Roads (the road has a series of dots running along it—these mark a townland boundary). Now follow the road south to Kilcrumper Cross Roads and then return west to Ballyarthur Cross Roads. Ask the students to trace the other roads marked on the map.
3. Finally point out the main river indicated on the map. Ask the students to highlight it in blue. What is the name of the river? **River Funshion** (Abhainn na Fuinseann—**River of the Ash Trees**). In which direction is it flowing? (Point out the arrows that indicate the flow from west to east.)



Teacher Instruction

Divide the class into two groups. Ask one group to do Part 1 of **Worksheet 1a**, and ask the other group to complete Part 2. Both groups should proceed to Part 3.

Note: Use transparent highlighters or colouring pencils when marking the map, so that the symbols on the map are not obscured. In Section 3 each feature has a suggested colour. The text in the following Section guides you through the questions in **Worksheet 1a**.

SECTION 3 Feedback and Discussion



Key Question(s) What features are shown on the maps?
What are the benefits of these maps to archaeologists?

PART 1: ROADS, HEIGHTS AND CONTOURS

ROADS AND CROSS ROADS (ORANGE)

1. Draw a circle around the eight named crossroads and list the names
Ballynahow; Ballyarthur; Kilcrumper; Molly Barry's; Ballyclough; Ballyvoskillakeen; Ballinglanna; Bounbawn.



Teacher Instruction

Ask the students why crossroads have names—can they name any crossroads near where they live?

2. Outline the roads shown on the map

Discuss the network of roads shown on the map—how old are these roads?

- Ireland has a dense network of roads and lanes in rural areas. These developed to link the diffused pattern of small single farms and scattered holdings that are a feature of the countryside since the medieval period.
- Many new roads were laid out in the 18th and early 19th centuries as the population grew rapidly before the Great Famine.
- One of the oldest roads on the map is likely to be that approaching the fording point across the river between Ballhindon House and Ballinacarriga House.

3. Name the four bridges marked on the map

(Ballynahow, Downings, Glencorra, Ballyclogh)

- Two of the bridges cross the Funshion River (Ballynahow and Downing). The river here is wide and has a flood plane, so these are going to be multi-arched bridges. The other two (Ballyclogh and Glencorra) cross small tributaries of the Funshion and are therefore more likely to be single-arched bridges.
- Bridges usually cross rivers at right angles. See how some of the roads tend to twist and turn to approach the river at right angles.
- Discuss access across the river and how restrictive a river is to movement across the countryside before a bridge is built.

4. Find 'Cornhill Ford'. What is the function of a ford?

- Cornhill Ford is a short distance west of Ballynahow Bridge. Note the roads approaching it from both north and south are very minor roads—this ford was probably not used much since the building of Ballynahow Bridge.
- Fords are suitable for crossing a river (when not in flood) by foot or on horseback but are not, unless paved, suitable for wheeled vehicles.
- The advent of a stagecoach service in the 18th century necessitated the building of many bridges, and consequently fords went out of use.

5. Is there any sign of another ford on the river?

- There is a ford crossing at Ballyhindon House (marked 'ford' on the 1st and 2nd editions of this map)—indicated here by two roads approaching each other on either side of the river.
- Building a bridge is an expensive undertaking so not all fords were replaced by a bridge. Once a bridge was built all the local traffic tended to use it instead of the ford, and so roads that lead to a ford often became redundant.

6. Find and highlight the two footpaths, marked 'FP' on the map

- Travelling west from the public road just north of Rushmount House is a footpath, marked on map as 'FP', with the route shown as a double dotted line indicating that it crosses open ground and is not fenced. This footpath leads to a small unnamed house and crosses a stream. This is probably an old access route to the house, before the building of Glencorra Bridge.
- The other footpath travels west from Ballyclough Cross Roads for a short distance. This footpath is also the remnant of an old route made redundant by the building of a bridge, in this case Ballynahow Bridge. Notice how the footpath is on the line of the road travelling east-west, and how the road swings to the south to be more convenient for the bridge.
- Other trackways are marked on the map similar to the footpaths—two dotted lines. As these are not labelled 'F.P.' we can assume that they are probably private unfenced avenues or driveways.

HEIGHTS AND CONTOURS (PURPLE)

7. Highlight any six spot heights on the map

There are over sixty spot heights marked on the map.

- These are simply represented by a number with a dot beside it—at Ballyarthur Cross Roads the spot height is '177' and the dot is in the centre of the crossroads. That means that at this point the ground is 177 feet above sea level.
- All the spot heights are marked in the centre of roads—why is this? (It is much more difficult to survey across country as opposed to along a public road!)

8. Highlight the six trigonometrical stations shown on the map

These are fixed points used by the OS in their map making of the country.

- Like spot heights the height above sea level is given in feet but the point is marked by a triangle.
- Unlike the spot heights these are not on the road network but are located on high points in the landscape. This is so they are inter-visible—one can be seen from a number of others using a theodolite.
- These are the fixed points from which the rest of the map is measured.

9. Highlight any six benchmarks on the map

- Marked with initial B.M. (Bench Mark) and this symbol  with height adjacent.



The lower part of the carving is the symbol for the Ordnance Department of the British Army (who were involved in the original survey) . The upper horizontal line marks the exact level of the height above sea level .

- Interspersed with the spot heights along the roads are bench marks, marked with 'B.M.' and the number of feet above sea level. There is one just north of Ballynahow Cross Roads.
- Bench marks are marked on the ground by a symbol  carved on some permanent feature like a wall, building or bridge.

10. What is the difference between a spot height and a benchmark?

- The Bench marks' symbols  are marked on the ground, spot heights are not.

11. The graph when completed plots the spot and bench mark heights along the road between Ballyarthur Cross Roads and Ballynahow Cross Roads. What does the graph tell us about the road?

It crosses undulating (up and down) ground before descending steeply to the river.

12. Highlight the 100-foot and 200-foot contour lines and highlight all the ground above the 200-foot contour lines



Teacher Instruction

Ask the students to describe the landscape using the contour lines.

- A valley runs through the area with the River Funshion flowing along it from west to east.
- The ground rises to the north to 200 feet, but is cut by tributaries flowing south into the Funshion.
- The land to the south is more undulating, rising to the south-west where some areas are above the 200 foot contour.
- The only area under the 100 foot contour is the flood plain of the river downstream of Ballynahow Bridge.

WATER (BLUE)

13. What is the name of the river?

- River Funshion.

14. Which direction is it flowing?

- West to east—an arrow shows the direction.

15. What is an area liable to flooding called?

- The flood plain (often referred to as an 'inch').



Teacher Instruction

Discuss with the students why it is important to mark where the river floods.

- To restrict building in the area.
- Most crops are not suitable to areas that flood.

16. Highlight the two main tributaries flowing into the river from the north

- One of these enters the river just west of Ballynahow Bridge and is crossed by Ballyclough Bridge. The other is to the east and enters the river near Glenwood House and is crossed by Glencorra Bridge.
- Smaller streams are marked with a double line, with an arrow showing the direction of the flow. ⇒
- Some of these streams start where the word 'rises' occurs on the map. This is where ground water rises up from the ground as a spring. There is an example on the east side of Downing South townland and also on the east side of the river near Ballynacarriga House.

17. There is a pond shown on the map in Loughnahilly townland—highlight it

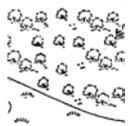
The pond is shown as an oval feature, directly above the first L in the townland name 'Loughnahilly'.

TREES (GREEN)**18. Highlight the wooded areas of coniferous trees (see map symbols).**

OS symbol for coniferous trees

19. Highlight the wooded areas of deciduous trees

Deciduous forests are the natural vegetation for the area and this area was covered in deciduous forest before farmers arrived in the Neolithic around 4,000 BC.



OS symbol for deciduous trees

**Teacher Instruction**

Discuss what impact farming has had on natural woodlands.

OS symbols for deciduous trees

- The wooded areas shown on the map occur mainly around houses—these are called shelter belts protecting the houses from the prevailing winds.
- The trees in Ballynacarriga (southern end) and Moorepark townlands indicating a demesne/parkland around these country houses. (Moorepark—just off the map—was a large country house, see *The Big House*, T2,U1,L2).

20. What three woods are named on the map?

- Beech Wood, near Ballyclogh Bridge.
- Ballynacarriga Wood, along the east side of the river in Ballynacarriga townland.
- Killeen Wood, in Garraunigerinagh townland.

PART 2: HOUSES AND BOUNDARIES

NAMED HOUSES (BROWN)

1. **Draw a circle around each of the twelve named houses on the map**
Gurrane Ville, Garrane, Janeville, Ballyvoskillakeen House, Ballyhindon House, Ballynahow, Ballyvolock, Glenwood House, Ballynacarriga House, Rushmount, Maryville and Downing House.
 - These were the landed gentry's country houses built in the 18th and 19th centuries (see *The Big House*, T2,U1,L2).
 - Also named on the map is Ballynahow Stud Farm.
2. **Identify four of these named houses which have a roadside lodge(s)**
 - Glenwood House and Maryville have two each (the third one near the latter belongs to Moorepark, which is just off the map).
 - Janville, Ballynacarriga House, Gurrane Ville and Rushmount have one each. There are also some lodges shown on the map which belong to houses off the map—as with the lodge for Moorepark.
 - A gate lodge is a standard feature of 18th and 19th century Country House demesnes. The lodge was occupied by the person responsible for opening and closing the gate into the demesne (see *The Big House*, T2,U1,L2).

UNNAMED HOUSE (PINK)

3. **Highlight some of the unnamed houses/farmsteads shown on the map**
 - The houses which are located along the road more than likely belong to farm labourers while those set off from the road were probably owned by tenant farmers.
 - These were all probably traditional vernacular buildings, built by local people using local material (stone, mud, thatch) and according to local tradition.

TOWNLANDS (YELLOW)

4. **Outline the boundary of Loughnahilly townland.**
 - Townland boundaries are marked by closely set dots like this
 - Townlands are the basic administrative unit in Ireland. Their origin goes back to Early Christian tribal boundaries though the system has seen many changes over the centuries.

- To trace the boundary follow the close-set dots along the road to Ballyvoskillakeen Cross Roads, then turn north and follow the road to Ballyhindon House. Here the boundary turns west along the road for a short distance, before following field boundaries through rough pasture just north of the trigonometrical station. It then turns south to rejoin the road, just west of 'L' in Loughnahilly (this latter section is also a barony boundary which is marked with longer dashes).
- The name of the townland is given in large letters. Beneath the name is the area of the townland: 147 acres, 2 roods and 30 perches, as well as 1 rood and 20 perches of water (i.e. the pond—see *Part 1 no. 17*).
- Under each townland name the area it covers is given in old units of land measurement: A=acres, R=roods, P=perches. How do we measure area now? (metric hectares).
- If there is a body of water in the townland its area is listed separately.



Acre: a unit of area equal to 4840 square yards. The word relates to the old Norse word akr German acker and Latin ager.

Rood: a unit of area equal to one quarter of an acre. Related to Old English rōd; Old Saxon rōda; and old Norse rōtha.

Perch: A smaller unit of area equal to 30¹/₄ square yards.

5. Outline and colour-in the townland of Gortore.

6. What is the area of Gortore townland?

- 199 Acres, 1 Rood, 39 Perches

7. The following townland names occur on this map. Divide them into those of Gaelic and English origin. Can you give the English translation of the Gaelic names?

- The original Ordnance Survey in the 19th century collected the Gaelic place names in use at the time. A phonetic version of these names was then used on the First Edition maps. These then became the official names of places when the list was issued by an Act of Parliament.

Townland name	English in origin	Gaelic in origin	Mixed	Translation
Ballyvolock		✓		The town near the cow's pathway
Downing South			✓	The road of the little people
Glenwood	✓			
Ballynacarriga		✓		The town of the stones
Monadrishane		✓		The bog near the briery or bushy place
Maryville	✓			
Moorepark West	✓			
Gortore		✓		The field of gold
Ballyvoskillakeen		✓		McSheinicin's townland
Lisnasalagh		✓		The fort of the willows
Ballyarthur			✓	

<i>Townland name</i>	<i>English in origin</i>	<i>Gaelic in origin</i>	<i>Mixed</i>	<i>Translation</i>
Boherderroge		✓		The road of the young wood
Loughnahilly		✓		Lake near the burnet
Ballyhindon		✓		The town of the small hedge sparrow
Ballynahow (Spiers)				The town of the river Spears
Ballynahow (Murrogh)				The town of the river Murrogh
Knockacappul		✓		Horse hill
Garraunigerinagh		✓		O'Cian's gelding (horse)

PART 3: ARCHAEOLOGICAL MONUMENTS

ARCHAEOLOGICAL MONUMENTS (RED)

1. Identify the five archaeological monuments on the map which are named in Old English script

- Ballynahow Castle (in ruins)
- Ballyhindon Castle (in ruins)
- Cloghleagh Castle
- Garraunigerinagh Castle (in ruins)
- Kilcrumper Church

2. Three of the castles are located close to the river—why?

Rivers crossing points—fords and bridges—have always been strategically important.

- By building castles overlooking these crossing points it is possible to control traffic through an area. Although the bridges at Ballynahow and Downing are 18th/19th century in date they probably replaced important crossing points on the river or wooden bridges.
- Ballyhindon Castle was also probably built close to a crossing point on the river.
- The fourth castle—Garraunigerinagh Castle, is well back from the river but stands on top of a low hill (hence the location of a trigonometrical point beside it) with a commanding view of the surrounding countryside.

3. Highlight the six archaeological monuments shown on the map with hachures and list their townland names

- Manning (SMR/RMP CO027-097)—semicircle of hachures extending from curved field boundary.
- Cornhill (SMR/RMP CO027-98)—hachured circular enclosure.
- Garraunigarinagh (SMR/RMP CO027-100) arc of hachures.
- Ballyhindon (SMR/RMP CO027-106)—hachured semi-circular arc.
- Ballynacarriga (SMR/RMP CO027-186)—extending from field boundary.
- Moorepark (SMR/RMP CO027-113)—arc of hachures around the castle. (see www.archaeology.ie).

4. **These hachures are depicting earthwork (man made feature made of earth) enclosures. What shape are these earthworks?**

- Circular—the most complete example is in Cornhill townland.

5. **What type of archaeological monument are these enclosures?**

- These circular enclosures are mainly ringforts, Early Christian farmstead.



Aerial photograph of ringfort



Ringfort on OS map



Reconstruction of ringfort

- Whilst the hachures around the castle in Moorepark could indicate the remains of a ringfort on the site of where the castle was later built, they are as likely to be representing earthworks associated with the castle itself.
- The castle is a 16th century tower house (*Irish Castles Throughout the Ages*, T2,U2,L2). These castles had attached enclosures with a stone wall called a bawn.
- The hachures could be the remains of the bawn wall now reduced to sod-covered foundations, or the bawn could have been an earthwork enclosure, though these are rare.

REVIEW

- The original six-inch Ordnance Survey maps were made in the early 19th century.
- They were the first accurate and detailed maps of the entire country.
- They are printed at the scale of six-inches to a mile.

There are three editions of these six-inch maps:

- 1st edition—1825-40
- 2nd edition—from 1850s
- 3rd edition—from 1890s.
- These OS six-inch maps are a very valuable source of archaeological and historical information.
- The Ordnance Survey continues to make maps with modern equipment and now to metric scales.
- The Ordnance Survey six-inch maps are a primary source for archaeological surveys.

The two methods of depicting archaeological monuments on these six-inch maps are:

- Old English script.
- Hachures.
- In the Study Area there are 11 archaeological monuments identified on the six-inch map—6 structures named in Old English script and 5 monuments identified by hachures.

Optional exercise

Distribute **Worksheet 2** of the first edition six-inch map of the same area to compare and contrast. A higher resolution of this worksheet is provided on this CD.

See Projects section: Archaeological Monuments of Ireland—A Desktop Study.

WEB LINKS

WWW.



Irish Historic Maps www.irishhistoricmaps.ie/historic/

Ordnance Survey of Ireland www.osi.ie/

Townland Database www.seanruad.com/

Placenames www.logainm.ie

Local Area Plans www.myplan.ie

PART 1: ROADS, HEIGHTS AND CONTOURS

(suggested colours for marking map are in the brackets).

Roads and Crossroads (orange)

1. Draw a circle around the eight named crossroads and list the names below:

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2. Outline all the roads shown on the map.

3. Name the four bridges marked on the map.

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4. Find 'Cornhill Ford'. What is the function of a ford?

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5. Is there any sign of another ford on the river?

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6. Find and highlight the two footpaths—marked 'F.P.' on the map

Heights and Contours (purple)

7. Highlight any six spot heights on the map (example .161 at Ballynahow Cross Roads).

8. Highlight the five trigonometrical stations shown on the map by the symbol \triangle .

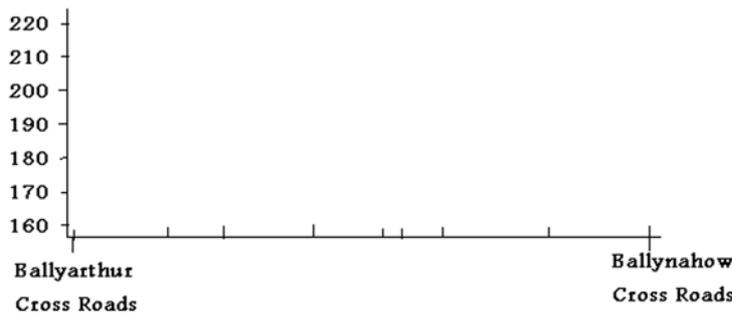
9. Highlight any six benchmarks on the map—marked 'B.M.' and this symbol ∇ with height adjacent.

10. What is the difference between a spot height and a benchmark?

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11. Using the graph below plot the spot heights and bench marks along the road between Ballyarthur Cross Roads and Ballynahow Cross Roads.



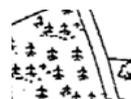
12. Highlight the 100- and 200-foot contour lines and highlight all the ground above the 200 foot contour lines.

Water (blue)

13. What is the name of the river?
14. Which direction is it flowing? (find the arrow) (top of map is north)
15. What is an area liable to flooding called?
16. Highlight the two main tributaries flowing into the river from the north.
17. There is a pond shown on the map in Loughnahilly townland—highlight it.

Trees (green)

18. Highlight the wooded areas of coniferous trees.
19. Highlight the wooded areas of deciduous trees.
20. What three woods are named on the map?



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PART 2: HOUSES & BOUNDARIES

Named Houses (brown)

1. Draw a circle around the twelve named houses on the map.
2. Identify four of these named houses which have a roadside lodge(s)

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Unnamed House (pink)

3. Highlight some of the unnamed houses/farmsteads shown on the map (building: )

Townlands (Yellow)

4. Outline the boundary of Loughnahilly townland.
5. Outline and colour-in the townland of Gortore.
6. What is the area of Gortore townland? Acres Roods Perches

7. The following townland names occur on this map. Divide them into those of English, Gaelic and mixed origin. Can you give the English translation of the Gaelic names?

<i>Townland name</i>	<i>English in origin (Tick)</i>	<i>Gaelic in origin (Tick)</i>	<i>Mixed (Tick)</i>	<i>Translation</i>
Ballyvolock			
Downing South			
Glenwood			
Ballynacarriga			
Monadrishane			
Maryville			
Moorepark West			
Gortore			
Ballyvoskillakeen			
Lisnasalagh			
Ballyarthur			
Loughnahilly			
Ballyhindon			
Ballynahow (Spiers)			
Ballynahow (Murrogh)			
Knockacappul			
Garraunigerinagh			

PART 3: ARCHAEOLOGICAL MONUMENTS

Archaeological Monuments (Red)

- Identify the five archaeological monuments on the map which are named in Old English script e.g. *Ratqmeade*
 -
 -
 -
 -
 -

- Three of the castles are located close to the river—why?

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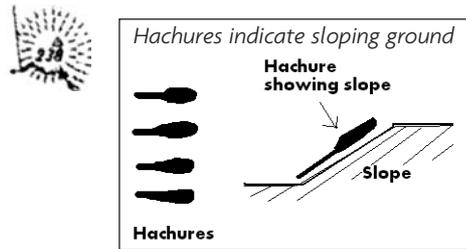
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- Some of the archaeological monuments on the map are shown using hachures like this:

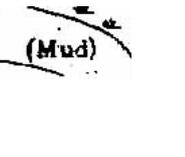
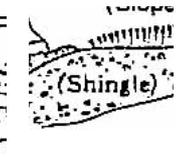
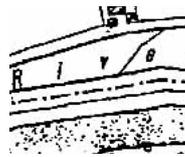
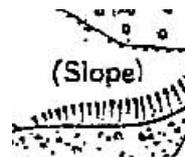
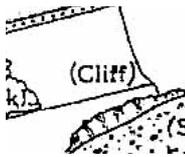
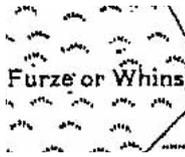
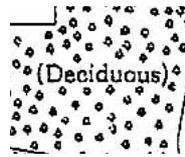


Highlight the six archaeological monuments shown on the map using hachures and list their townland names:

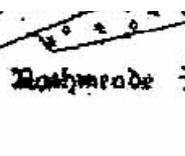
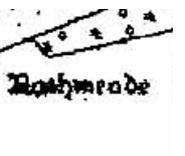
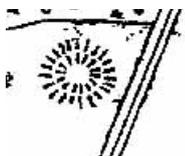
-
 -
 -
 -
 -
 -
- These hachures are depicting earthwork enclosures. What shape are these earthworks?
 - Circular
 - Square
 - Rectangular
 - Indicate below what type of archaeological monument they are likely to be?
 - moated site
 - fulacht fia
 - ringfort

NATURAL FEATURES

Trees



Structure

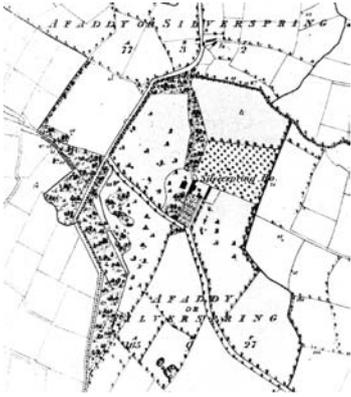
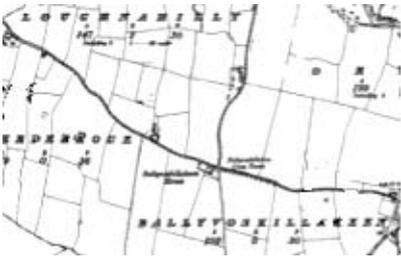
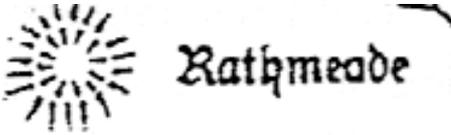


Footbridge



Bridge with road over



<p style="text-align: center;">Ordnance Survey camp</p> 	<ul style="list-style-type: none"> • Between 1824 and 1846 the Ordnance Survey (OS) mapped the entire island of Ireland to the scale of six-inches to one mile (i.e. six inches on the map represents one mile on the ground). • This was an incredible achievement for that time— Ireland was the first country in the world to be completely mapped in such detail.
	<ul style="list-style-type: none"> • In order to map the country the Ordnance Survey's first task was to establish a series of fixed points on the ground. • These points were inter-visible with other points and the exact angle between them was measured by a giant theodolite. These were the first trigonometrical stations. • Long-range visibility was a priority in choosing fixed points thus many mountain tops were chosen.
<p style="text-align: center;">1st edition six-inch OS map</p> 	<ul style="list-style-type: none"> • The six-inch maps were published in a county-by-county series between 1833-46. These maps are known as 'the first edition'. • The success in Ireland led to the mapping of Britain at a similar scale. • The 1st edition six-inch maps provided a comprehensive portrait of the Irish landscape in the early 19th century just prior to the Great Famine. • A second edition was produced from the 1850s along with a series of larger scale 25-inch to one mile maps. • A third edition was produced in the early 1900s • New metric maps, at a scale of 1:5,000, are now being prepared by the Ordnance Survey.
<p style="text-align: center;">3rd edition six-inch OS map</p> 	<ul style="list-style-type: none"> • The six-inch OS maps show a wide range of features both natural and man made. • Natural features include rivers, trees, marsh, rock outcrop, springs, bogs, etc. • Height above sea level is shown using spot heights (.161), bench marks,  and contours. • Man-made features include roads, bridges, buildings—some are named but most are not. • Many names are featured on the maps such as townlands, parishes, cross roads, local place names.
<p style="text-align: center;">Hachures & Old English script</p> 	<ul style="list-style-type: none"> • The Ordnance Survey six-inch map is an invaluable historical source as it depicts in detail the 19th and early 20th century landscape. • It is one of the main sources for finding archaeological monuments. These are shown on the six-inch maps by using hachures, and /or Old English script. • These six-inch maps are available on the OSI website www.osi.ie or in your local library.