

Leaving Certificate Geography: Geographical Investigation Report

Courtesy of Roisín Heaney

A STUDY OF CHANGING LAND USE IN A RURAL SETTING

INTRODUCTION

Aim

To study changing land use in Ballyfin (Co Laois) Demesne/Estate/Landed Estate over an extended period.

Objectives

[50 words, 5 marks]

- To establish what factors were responsible for the demesne being sited here originally
- To identify the changing land use over three periods: (1) Estate (2) School (3) Hotel
- To determine the reasons for the changes over time and why different parts were allocated different uses
- To evaluate the effects that the various changes have had on the landscape

PLANNING

[100 words, 5 marks]

1. We decided on the information we needed, how to get it, and divided into groups where we were allocated different tasks: visits to (a) the County Council offices to view planning applications; (b) the local newspaper to view articles written when news broke in 2002 about the sale of the school; and (c) we identified various historical articles written about the demesne, and how to research these.
2. We identified a number of maps that would allow us to check the aspect of the site and land use changes in the past.

eg 6-inch map of the area surveyed in 1930

1:50,000 OS map (s.1989)

1:12,000 FCA orienteering map (1986)

We prepared sketch maps to record the different land uses on these.

3. We studied an aerial photograph of the grounds taken c1950, and used the school camera over the past year to record ongoing changes. We also arranged to view and photograph a model of how the new hotel complex will look when finished.
4. We drew up questionnaires and arranged interviews with the Brother in charge of the grounds from 1955 and with the new owner.
5. We learned how to make a clinometer, how to record with it and how to use a compass.

GATHERING OF DATA

[450 words, 40 marks]

Our first method was reading the maps and studying the aerial photograph. To determine the reason why this area was chosen as the site for a demesne we determined the aspect of the site. To do this, we drew a cross-section of that part of the Sliabh Blooms that the demesne was located in.

Using the 1989 OS map sheet 54, we chose an area 130 km sq that included the landed estate. We made photocopies of this area. We chose two points about 13.5 km apart from N343 046 (metres) on the slopes of the Sliabh Blooms to S423 976 (metres) just west of Portlaoise. Using these points we constructed a cross section. We also drew a line on the map to determine the direction between the two points. For the second, a stepped transect, going out into the estate we identified the line, which was from the tower to a point SE of the lake. Then we identified the break of slope points and divided the transect into sections. In pairs of equal height, we measured the angle of each section using two clinometers. One stood at the bottom and one at the top. We measured the foresight and backsight and got the average. Then we measured the distance of each section with a tape measure. Both in turn were recorded in our worksheets. When we had finished recording all the sections, we constructed the stepped transect. We also observed and record the different land uses in each section.

Problems we had were measuring the distance across the lake and buildings blocking the line of sight. We solved this by measuring the corresponding sections on the 6 inch map.

Then to get the direction of the transect we used a compass. The points on the ground at each end on the transect were not intervisible, but we could see the top of the tower from the opposite end and had no problem getting the direction.

To double-check our measurements and direction we identified the same tow points on the 6 inch map, and using the map we drew a cross-section between them. We also drew a line on the map to identify direction and recorded the measurements needed to work out the average gradient.

To determine the changing land-use over the three periods, we drew three sketch maps. For the first when the area was an estate, prior to 1927, we analysed the 1930 6-inch map. We sketched in the buildings and land use shown. One use not shown was tillage but we knew from our historical research where this was carried on.

For the second and third periods, recording land use during the school and hotel complex phases, each group was allocated a specific area of the grounds to survey and record.

As the school has been undergoing massive change for the last two years (before we started our fieldwork), some of the land use during the school period was no longer evident, so we supplemented our field work with an analysis of the aerial photo and the orienteering and 1:50000 maps. As the school has been in existence since 1930, we recorded on this map the main land uses over that time. Our interview with the Brother who had responsibility for the grounds was of great help to us in identifying these.

RESULTS, CONCLUSIONS, ANALYSIS, EVALUATION

[400 words, 30 marks]

Study of Site Location

The line of the cross-section drawn on map 1 showed that the site had a southerly aspect. The direction was from NW to SE. We worked the average gradient of this slope.

$$\underline{VI} \qquad \underline{483 - 113} \qquad = \qquad \underline{370} \qquad = \qquad \underline{1}$$

HE 13.5 km 13500 m 36.5

Our conclusion was that the Estate was located here as the aspect would mean that it was much warmer than one would expect for its latitude and altitude (over 170 m o.d.). The Sliabh Blooms also provide some shelter from cold northerly winds.

The stepped transect also showed the southerly aspect. We had determined this from our compass reading, which showed the line of direction from the tower to the lake – NW to SE. It shows that the steepest slope was planted with trees and shrubs. Our conclusion was this was to reduce erosion and mass movement. The degree of slope varied from 0 to 16.

$$\frac{\text{VI}}{\text{HE}} = \frac{208-150}{870} = \frac{58}{870} = \frac{1}{15}$$

The average gradient of the grounds was more than twice as steep as that of the surrounding region so it had an even more favourable aspect. This may explain why this particular location was chosen rather than others in the region.

Changes in Land Use

Using the average figures (fig1) these were converted to hectares and the results shown on bar charts (fig2) and pie charts (fig3). The main changes were the planting of conifers by the Brothers.

Landed Estate

Ballyfin was first planted in the 1660s when Queen Elizabeth I granted the lands to Patrick Crosby (Ref 3). The first house was built around 1700. Later woods were planted and a man-made lake was created (Ref 4).

The present house was built in 1821 – 1826. The conservatory was added in 1851. Woods of beech, aspen and ornamental trees and shrubs were planted. At this time, Ballyfin was described the grandest and most lavish classical house in the country (Ref 5). It was fully functional. Timber was cut in the sawmill for fuel. The gardens were used to grow flowers, fruit, and vegetables. Bees and hens were kept in the upper garden. Cattle, sheep and deer were reared on the parkland.

Towards the end of the 19th century, the Coote family suffered a financial downturn and in 1927 the Patrician Brothers bought the demesne.

Educational Use

In 1928 the Brothers added a new wing to accommodate the students and in 1930 a boys' boarding school opened. Later the coach yard and stables were converted to classrooms. In the following decades recreational facilities were created. Five playing pitches were built. The rose garden and rosary were converted to a tennis court and handball alleys. The millpond was converted to a swimming pool. The gymnasium was built in 1970.

Most of the grand interior of the house was preserved though some areas were utilised for school use. Many came to visit the house, walk the grounds and fish the lake so tourism was an important land-use throughout the later part of the 20th century.

The school was almost self-sufficient. They continued to grow fruit and vegetables in the gardens and other crops were grown in the fields. Cattle, sheep and hens were reared.

The grotto was converted to a graveyard for the Brothers.

Towards the end of the 20th century, most of the Brothers were old. As was happening world-wide, very few were joining religious orders. Maintenance became difficult. Finally they had no option but to sell the estate in 2002.

Hotel Leisure Complex Use

The new owner submitted planning applications in 2003/4 to change the land use. Negotiations with the DES meant the school could continue until 2009. The conversion to a 5-star hotel began in 2005 and will be complete in 2011. The results of our questionnaire, study of planning applications and the model show that the intention is to restore the grounds back to what they looked like in the 1850s. All evidence of commercial lumbering will disappear as the coniferous plantations are removed. The playing pitches are being restored to parkland. So far, over 70,000 saplings and 800 more mature trees (oak, beech, ash etc) have been planted. The gardens will be used to provide organic fruit and vegetables for the guests.

The tennis court and ball alleys are being restored to former use. The outdoor pool has been converted to a reservoir for the hotel. The lake will continue to be an amenity and will be restocked for coarse fishing. An indoor leisure complex will provide further recreation.

One of the more controversial changes was the removal of the 45 remains of the Brothers from the graveyard and its restoration to a grotto.

The heritage of the area has not been compromised by the changes. The work and maintenance by the Brothers throughout the 20th century meant that very little of the architectural beauty was lost. The efforts of the new owner to restore the grounds to their former greatness looks like being a complete success.

References

1. Ballyfin: a condensed history of Ballyfin 1903
2. Ballyfin Demesne Conservation Plan (Purcell, Miller, Tritton) commissioned in 2003 by the new owners
3. Article from *A Country Life Magazine*
4. Anthology *Hibernica* 1794
5. Article in July/August edition of *Ireland of the Welcomes* 1989
6. School magazine *The Tower* – Golden Jubilee edition 1980

Sketch maps of the estate, the school, and the hotel leisure complex accompany the above text.