The 17th century 'Down Survey' resulted in the first systematic mapping of Ireland, with unprecedented levels of organisation and accuracy. It proved a milestone in Irish and world cartography and its maps were used as a record of land tenure almost until the advent of the Irish Ordnance Survey in the 1820s.

"may my efforts be of lasting advantage to the nation" – William Petty

Compiled and edited by Jimmy Laffey, Skehana & District Heritage Group, for the Athenry Medieval Festival “Down Survey of Ireland” workshop, Athenry Community Centre. August 20th, 2017
“The 17th century 'Down Survey' resulted in the first systematic mapping of Ireland, with unprecedented levels of organisation and accuracy. It proved a milestone in Irish and world cartography and its maps were used as a record of land tenure almost until the advent of the Irish Ordnance Survey in the 1820’s.

Following a brief description of the historical context which brought about the survey, this booklet explains the planning, measurement techniques and instrumentation used by William Petty and his principal assistant, Thomas Taylor. The cartographic style of arguably Ireland’s greatest survey is described and illustrated with examples from the collection of barony maps now kept in the Bibliotheque Nationale de France.

It gives an introduction to the Books of Survey and Distribution, Vol. III, for the County of Galway as prepared for publication in 1962 by Breandán Mac Giolla Choille, M.A. with introductions by Robert C. Simington, D.Litt. It is based on abstracts of various surveys and instruments of title from 1636 to 1703.

Finally it introduces the Down Survey of Ireland Project which was funded by the Irish Research Council under its Research Fellowship Scheme. The project began in 2011 and initially involved identifying and digitising surviving copies of county, barony and parish maps. The second phase involved building the database from the Books of Survey and Distribution and these were incorporated into Geographical Information System written by the project team. As part of the GIS, the set of county maps were overlaid onto a Google Earth layer, and along with the late 19th century Ordnance Survey maps we have the benefit of a functional, easy to use and information packed website at http://downsurvey.tcd.ie/index.html.
Introduction

Henry VIII is reputed to have said that "Ireland must first be broken by war before it is capable of good government". Henry acceded to the English throne in 1509 and reigned until his death in 1547. His military control of Ireland was ineffectual however and confined to a fortified area of a few hundred square miles around Dublin known as the 'Pale'. The countryside outside the Pale was ruled by the native Irish and gaelicised 'old English' chieftains in a state of prevailing resistance to the spread of Crown rule.

Early attempts to extend military and administrative control beyond the Pale were unsuccessful. In 1534 for example, all lands in Ireland were required to be surrendered to the Crown under a royal decree. The confiscated lands were then to be granted back in exchange for an oath of allegiance to the king. Implementing such a policy was another matter and it was not until the accession of Queen Elizabeth I in 1558 that any sustained attempt was made to enforce English rule throughout the rest of Ireland. The gradual suppression of Gaelic resistance eventually allowed a greater degree of English control and influence in Ireland by the end of Queen Elizabeth's reign in 1603.

This period of history brought about the beginning of change in Irish land tenure which had been previously administered under the ancient system of jurisprudence known as Brehon Law.

Irish Plantations.

The plantation of Ulster was devised by King James I in 1606 as a method of extending English rule in Ireland. The idea of planting colonies of settlers had previously been tried in Leix/Offaly in the 1550's, in Munster in the 1560's and 1580's and again in Ulster in the 1570's. All had failed due to rebellion or inadequate funding.

The 1606 plantation of Ulster was more successful, however. It was better planned and was the most systematic attempt yet to plant large numbers of settlers from England and Scotland. The year 1641 saw the beginning of a great rebellion in the north of the country for the return of lands confiscated in 1601. The rebellion was particularly vigorous in Ulster which also had the largest concentration of settlers from the earlier plantation. Thus began the process of sectarian conflict and division in Ireland - a process which was furthered by the arrival in Ireland of General Oliver Cromwell.
Oliver Cromwell

Cromwell arrived with his army on the 15th of August 1649 following victory by the Parliamentarians over the Royalists in the English civil war. The objectives of the invading army were to crush the rebellion in Ireland and to eliminate any remnants of Royalist support on this side of the Irish Sea. Striking first at Drogheda and then sweeping southwards, opposition quickly succumbed to Cromwell's superior military force and ruthless methods. The garrisons of several towns were put to the sword, causing others to flee in panic without a stand.

Following Cromwell's victory, draconian measures were quickly instituted to evict all 'Papist' land owners. They were forced either to migrate across the Shannon into the poorer lands of Connacht or else to go abroad, encouraged by a cash subsidy. An estimated 34,000 land owners and fighters accepted the latter offer and fled the country, many into Spanish military service.

With many of the Gaelic land-owning class now dispossessed, the peasant and labouring classes awaited the decree of the new government. The conquerors were about to regulate, replant and revive the country to its former flourishing condition.

The Cromwellian Settlement

The objectives of the Cromwellian Settlement were twofold. The first was to confiscate circa 2.5 million acres of land as "a godly retribution upon the barbarous wretches who had contrived the rebellion of 1641 ". Cromwell's second objective was to repay his officers and soldiers and the many English politicians and merchants- the 'adventurers'- who had funded his military campaign in Ireland.

The Cromwellian army then consisted of a very large force of over 34,000 horsemen, dragoons and infantry. Increasing arrears of pay were generating costs of about £600,000 annually. To defray the mounting debt, the disbanded soldiers were to be paid in debentures of confiscated land rather than cash.
Following the Land Grant Act of 1652, the Government confiscated all the walled towns, Church property and estates belonging to 'Irish Papists' in Dublin, Kildare, Carlow and Cork. Land was additionally confiscated in ten other counties to repay the adventurers and Cromwell's officers and soldiers. Poor quality land in the west of Ireland was reserved for the dispossessed Irish. The percentage of land ultimately confiscated in each county would vary from as little as 4% in Co.Tyrone to 91% in Co.Galway.

Land Distribution

The practical business of distributing the confiscated land would prove complex. The effect of twelve years of war had virtually ruined the country and it was impossible to obtain accurate information regarding land ownership. Although the decision to confiscate land had been taken in 1641, the ensuing war had prevented any attempt at valuation and surveying - an essential prerequisite to the process of distributing the confiscated land. In the interim and amidst fears that the supply of land might run out or become devalued, many of Cromwell's soldiers disposed of their debentures to officers and astute speculators, eager to purchase land at bargain prices. This enabled some individuals to amass huge estates and established patterns of land ownership that would remain unchanged until well into the nineteenth century.

The task of distributing the confiscated lands was entrusted to a Government Commission established in June 1653. A Survey and Valuation was embodied in the Act, to speed the process of distribution. To carry out this work, Benjamin Worsley, a medical doctor by profession, was appointed Surveyor General of Land in 1653.

Prior to the passing of the first Land Grant Act of 1870, all land was owned by just 3% of the population. That figure would eventually grow to more than 70% by the foundation of the State in 1922, aided by a succession of Land Acts and Commissions which enabled tenants to acquire Land holdings of viable acreage.

Surveying in those days was not a complex science and would not have required any great deal of specialist knowledge. Worsley had high social status and interestingly, carried magnifying glasses, "by means of which he sought to impress a gullible and ignorant public with vast ideas of his scientific attainments". In this regard he succeeded but he failed to impress William Petty who had also arrived in the country for another purpose.
The arrival of William Petty in Ireland

William Petty was born in Hampshire, England in 1623. He studied medicine and science at Oxford and had become a medical doctor and Professor of Anatomy by 1650. He accepted the post of physician-general to the army in Ireland in 1651. Petty travelled to Ireland in the company of Benjamin Worsley on board the frigate 'Revenge' in 1652. Seventeenth century Ireland was a very unhealthy place for both the native population and invading army alike. Dysentery and other epidemic diseases were widespread. Petty’s primary task was to restructure and improve the medical service of the army. This he quickly did, demonstrating a genius for organisation which he would soon apply to an even greater task.

Probably as a result of his scientific background, Petty took an interest in the work of the Surveyor General. The survey and valuation of the confiscated lands had just commenced under Benjamin Worsley's supervision. Worsley planned to survey only the land confiscated in the ten counties designated for repayment of the adventurers and soldiers, and did not intend to include the civil boundaries.

Civil Boundaries

Ireland is divided into four provinces and thirty two counties, with further subdivision into baronies, parishes and townlands. These civil subdivisions originated in the Christian era when Ireland was divided into one hundred and fifty kingdoms known as 'Tuatha’ occupied by autonomous groupings of families ruled by a king. From the 12th century onwards, the sub-division of land under the control of the Normans, like Sir Maurice de Prendergast for example, saw the creation of counties, similar to the shires of England. Baronies were parcels of land held by feudal tenant-in-chiefs and granted directly by a king. Together with counties and townlands, such units provided a hierarchical administrative structure for collecting taxes and census data to underpin the colonising process.
The Down Survey

Petty was highly critical of Worsley's mapping plans for several reasons - the proposed rates of pay on the survey were too high, no accuracy checks were envisaged, and by omitting the civil boundaries from the survey, the proposed plan would not have fully complied with the 1652 Act.

As a result of a bitter public quarrel, Petty was summoned to present his alternative plan for mapping the confiscated lands to the Commission entrusted to administer the Act. Petty proposed that the whole island and not just the forfeited lands should be surveyed. He would include all the civil boundaries (provinces, counties, baronies, parishes, townlands and plow lands) and topographic detail such as rivers, mountains, lakes, bogs, dwellings and bridges. Petty proposed to charge £7-3-4 for every thousand acres of profitable land surveyed and £3 per thousand acres of unprofitable land. Significantly, he also guaranteed to complete the survey of the ten counties designated for repayment of the adventurers and soldiers in under two years, whereas Worsley's proposed to take 13 years. In addition, Petty promised that Cromwell's soldiers would be given ownership rights to parcels of land, supported by maps at a scale of '40 perches in an inch'.

While Worsley and Petty did not disagree on the method of the survey, they argued fiercely on matters of organisation, costs and completion dates. Petty's superior plan was eventually approved by the Government but with some supervision by Worsley. The Commission finally decided on October 16, 1654 "that the lands to be set out for the payment of the armies arrears and the other public debts, be surveyed down as proposed by Dr: Petty".

The most systematic survey of Ireland was about to commence and would become known as the 'Down Survey', a term adopted by Petty himself and meaning simply that all measurements were to be plotted down on paper. The contract was signed on December 11, 1654 and the task began on February 1, 1655.

The Down Survey consisted of:

- The Civil Survey:

  The civil survey proceeded ahead of the mapping to identify the lands to be mapped, classify them as profitable or unprofitable and to establish the identity and religion of the owners.
• The Barony and Parish Maps accompanied by the Books of Reference:

Petty's contract required him to deliver 'perfect plots' of each barony and parish in the forfeited lands to the office of the Surveyor General in Dublin, showing the necessary civil subdivisions with details of proprietors names, religion and acreage.

• The Books of Survey and Distribution.

The Books of Survey and Distribution were an essential part of the process of distributing confiscated land and provided a record of ownership before and after forfeiture. They were meticulously referenced to the accompanying maps and provided an official record of land distribution in Ireland between 1656 and 1702. They contained information derived mainly from the field survey and included:

- the name and the religion of proprietors in 1641
- the townland name
- land quality (profitable or unprofitable) and acreage
- the name of new proprietor following confiscation

Nothing on this scale had previously been undertaken in Ireland. Sir Thomas Wentworth (Earl of Stafford) who was Lord Deputy of Ireland in the 1630's during the reign of Charles I had previously commissioned surveys in Tipperary and Connacht. Petty is known to have studied these maps and learned from Lord Strafford's techniques.

The Surveyors Chain was used to measure distances on land. It was made of iron links connected to each other by small elliptical links. This prevented kinks and facilitated repair and calibration (standardisation). The total length of the chain was usually 100 links (80 chains= 1 mile) and tally marks were often fitted at regular intervals to simplify distance measurement. Link length depended on the measure and standard of the time but would have been approximately 8 inches or 213 mm. Brass handles were fitted at either end to enable it to be pulled taught for measurement purposes. It was used with conjunction with the circumferentor which measured angles and magnetic bearings.
**Survey planning and organisation**

Petty now commenced the mammoth task of selecting and training a force of about one thousand men to carry out and complete the work of the survey to the agreed deadline. His principles of organisation were revolutionary. Although only 31 years of age at the time he demonstrated his genius both as an administrator, and surveyor.

Forty clerks were to be kept at the survey headquarters in Cork Hill, Dublin and the remainder were to be specially trained as field surveyors and assistants. Petty appointed district surveyors, many of whom attended lectures, in military cartography, at Trinity College Dublin. Foot-soldiers were trained to measure distances with surveyor's chains and observe magnetic bearings and angles using an early type of circumferentor, the precursor of the modern theodolite. Interestingly, Petty did not recruit from the ranks of the many professional surveyors of that time, for reasons which are explained later.

Petty divided the task of surveying into the constituent tasks of:

- field surveying
- protracting
- casting
- reducing
- ornamenting the maps
- writing and examining

This innovative division of labour would ensure unprecedented efficiency and accuracy.

**Materials and Instrumentation**

The following materials were imported from London for the survey:

- scale, protractors and compass cards
- magazines of Royal paper
- glue, colours and pencils
- field books of uniform size
- small French tents and portable furniture.

Wire-makers, watch-makers, wood turners, pipe makers and founders were recruited to manufacture a wide variety of equipment for the survey. Instrumentation included:

- measuring chains
- magnetic needles
- box cases for the compasses
- tripods
- brasswork
- circumferentors
Interestingly, only workmen "of sensitive head and hand" were allowed to assemble the compasses. The oldest is a wooden circumferentor made in Dublin in 1667 and now kept in the Museum of the History of Science, Oxford.

The circumferentor illustrated is the oldest known signed instrument in Ireland and second oldest known. It was made in Dublin by John Lewis in 1688, just after the ending of the Down Survey and probably typical of the type used by Petty's surveyors.

The instrument has three main components:

*The Face*

The centre of the face would have carried the freely moving magnetised needle, mounted on a central pin. The face also carries an engraved rose motif, the inscription "*Johannes Lewis Dublini Fecit anno Domini 1688*" and a 16 point compass with the mid quadrant points indicated by the large half hatched triangles. The remaining points are indicated by smaller half hatched triangles. Cardinal directions are annotated anticlockwise from north. North is represented by a fleur-de-lis, a style consistent with that used on the Down Survey maps.

*The Circle*

The raised circle is graduated every 30 minutes of arc and numbered every 10 degrees, incrementing clockwise from 10 degrees to 360 degrees.

*The Base Plate*

This carries the raised circle and face and has two projecting holed lugs, one of which is marked with an 'X'. These would have carried the vertical sights for aligning to any feature or object. The graduation method on the circle suggests that 'X' indicated the eye sight end. Thus a clockwise rotation of the sights by 90 degrees for example, would bring 'E' underneath the north end of the compass needle to give a magnetic bearing of 90 degrees.

*Fieldwork and map production*

Although used to hardship and drudgery, Petty's surveyors had to endure extensive travel, inadequate diet and severe weather. They also had to be "fit for Leaping hedges and ditches" and skilled in self defence. In October 1655 alone, eight of Petty's surveyors were killed by those opposed to Cromwell's re-settlement scheme. This fact would seem to vindicate Petty's earlier refusal to employ professional surveyors.

The civil boundaries were *admeasured* or surveyed by traversing and then plotted on grid paper. Acreage belonging to the different proprietors was then calculated.
in acres, roods and perches by counting the number of grid squares in each property. The results were meticulously listed in the 'Books of Reference' which accompanied the final maps.

The maps were scrutinised by examiners who were "astute and sagacious persons", recruited to detect any fraud in the measuring or plotting. Thomas Taylor was Chief Surveyor and Examiner on the Down Survey with an annual stipend of £100.

By April 1657, the confiscated lands in the ten counties were surveyed. Maps were drawn and then reduced to a size suitable for binding into volumes. Petty wisely put a time limit of one year on liability for errors. He personally superintended the distribution of some of the confiscated lands and by 1658, Petty's first contract was finished.

**Map legacy**

The Down Survey maps consist of a total of 1430 maps drawn at various scales. Of these, 216 are barony maps covering most of the country with the exception of counties Galway and Clare. The remainder are parish maps and according to William Petty, there were 2,278 parishes in Ireland. From this number, the number of parishes with no forfeiters must be deducted, as these were not surveyed or mapped. The number of maps was further reduced by the practise of drawing more than one parish on each sheet if it were practical to do so. By abstracting these unforfeited parishes from the Books of Survey and Distribution, and combining those smaller contiguous parishes that may reasonably have been combined on the Down Survey maps, the number of parish maps is 1,430. Out of these, 250 are Strafford maps leaving a potential total of 1,180 original Down Survey parish maps.

Over the intervening centuries, many of the original maps have been lost or destroyed. Some have survived, including a bound volume originally retained by Thomas Taylor at Headfort House near Kells (now a boarding school). Those maps are now kept in the National Archives, Dublin.

Importantly, a complete set of barony maps which were the property of Sir Henry Petty (Baron Shelbourne), the youngest son of William Petty, were seized by the French on 22nd February 1707 from the English ship the 'Unity' bound for London. Those maps were presented to the King of France by M. de Yelincourt, Secretary General of the French Navy in 1709. That complete set is now in the possession of the Bibliotheque Nationale de France.

Upon its completion in 1658 the Down Survey, along with the Strafford Survey from the 1630s, were housed in the Surveyor General’s Office in Dublin.

The maps and accompanying terriers (textual descriptions) were bound into volumes and available for public consultation until the destruction of a large
amount of the material in an accidental fire in 1711. The Down Survey survived in its entirety for ten counties – Carlow, Donegal, Dublin, Leitrim, Londonderry, Tyrone, Waterford, Westmeath, Wexford and Wicklow – while the volumes for Clare, Galway, Kerry, and Roscommon (including the Strafford material) were completely destroyed. Only ‘a few burnt papers’ remained of Cavan, Fermanagh, Kildare, Louth, Monaghan, Mayo and Sligo but at least one complete volume and additional papers survived for each of Antrim, Armagh, Cork, Down, Dublin, Meath, Kilkenny, Laois, Limerick, Longford, Offaly and Tipperary.

All the surviving original maps were finally destroyed in the Custom House Fire in 1922. The maps used in this project and displayed on the website are either copies of parish maps made in manuscript from the originals, or similar maps made by Petty and his team at the same time as the Down Survey was being compiled.

**Petty's Atlas of Ireland.**

Petty's contract also required him to produce additional smaller scale maps of the whole island for public use and convenience. Prior to the Down Survey, coastline maps showed little detail and were based upon incomplete information supplied by sea faring traders rather than on actual measurement. Petty's innovative outline map of Ireland was created from a mosaic of county maps derived in turn from mosaics of the parish and barony maps. Importantly, this yielded the first realistic map of Ireland.

The results were published in 1685 bound in an atlas entitled 'Hiberniae Delineatio' and contained thirty-six maps consisting of: - an outline map of Ireland, - four provincial maps, - thirty-one county maps depicting the baronies. That atlas is now kept in Marsh's Library, Dublin.

This version of Hibernia Delineatio was used as a wall map, in that the maps of each county have been engraved to the same scale to ensure they fit and can be mounted together. The provincial maps are arranged in the same manner and this atlas is one of only three surviving copies, but the only one in colour. In paper form, this map measures some 2.4 square meters.

**The Barony Maps**

The seventh article of Petty's contract committed him to create a set of barony maps and that these ‘perfect and exact mapps may be had for publique use of each of the barronyes and countyes aforesaid’. These maps, bound with the title Hibernia Regnum, were to be prepared in addition to the Down Survey maps and have had an eventful history.
Hibernia Regnum was captured by French privateers in 1707 from the vessel Unity, while en route from Dublin to London. It came into the possession of Monsieur de Valincont, Secretary General of the Navy in 1709, and is next recorded in the possession of the Abbot Dubois, an advisor to the Duke of Orleans, in 1718. Dubois gave the volumes to Guillaume de l’Isle, by now Royal Cartographer to the French king and the foremost cartographer of his time. The manuscript was donated to the Imperial Library by de l’Isle’s widow in 1727, and remained there almost entirely undisturbed until 1774, when they were brought to the attention of the Earl of Harcourt, a British ambassador to Paris. In 1786, Sir William Petty, First Marquis of Lansdowne and Earl of Shelburne (a relation of his namesake from the 1650s), asked for it back via John Frederick, Duke of Dorset, ambassador to Paris. The French King was quite willing to accede to the request but was blocked from doing so by the Library, which pointed out that it was unwise for the King to start returning stolen manuscripts as the Library held a large number of these.

Hibernia Regnum was finally copied in 1789 by General Charles Vallancey, late of the army Corps of Engineers, one Major Taylor, who had produced a book of road maps of Ireland in 1777, a French engraver and a number of assistants. This almost exact copy was brought back to Dublin and was photographed and published by the Ordnance Survey in 1908. The barony maps displayed on this site are a hand coloured copy of this edition, with a small number of additional maps not present in this set.

The Parish Maps

Numerous copies were made of those Down Survey maps surviving post 1711 and prior to the final destruction of the manuscripts in the Custom House fire of 1922. In 1786 Daniel O’Brien copied those maps bound in books that had survived the fire in reasonably good order. O’Brien was previously a clerk at Dublin Port and working under the instruction of Robert Rochford, Deputy Surveyor of Lands.

Rochford followed the now established tradition among Down Survey protagonists of taking these copies into his private care from where they passed to his widow, his executor and eventually into the custody of Reeves and Company, the solicitors for Forfeited Estates and were not seen again until 1965. The collection was sold in two sections to the National Library of Ireland and the Public Record Office of Northern Ireland. These form the bulk of the parish maps and terriers used on the site.
An important set of tracings from Down Survey maps is currently undergoing conservation at the National Archives of Ireland. The tracings, some 2,700 in number, were made for the Griffiths’ Boundary Survey from 1824 onwards and were used by these surveyors to confirm the location of town land boundaries. This material was transferred to the Ordnance Survey office in the 1830s and was used to create the First Edition maps from 1838. The Ordnance Survey surveyors had the authority to accurately survey the boundaries, but not to change or delete them, thus creating the strong continuity between Petty’s surveyors and property boundaries as they exist in the present. These tracings are used on the site to fill in gaps in the Reeves set. In addition we have displayed maps for the northern half of County Antrim by William Molesworth (1720) and a set for County Sligo now in Sligo County Library, as they are close in appearance to the originals.

**The Down Survey Terriers**

A terrier is a written description accompanying townland maps. The Down Survey included a terrier with each parish map and included a reference number for every townland on both map and terrier. This numbering system allowed the survey information to be transferred to other sources such as the Books of Survey and Distribution. Effectively, the Down Survey terriers have much the same structure as a modern GIS with the land owner data related to a specific geographical place, with the added advantage of this hierarchical data being linked to other sources. This was a remarkable achievement for the 17th-century.

A unique feature of the Down Survey terriers is that they also include a detailed description of each parish. These range from the purely functional, a written description of its location and a list of townlands contained within it, to fuller descriptions that can include descriptions of buildings, commerce, inhabitants and
local customs. In many cases the parish description gives an account of the effects of the Civil War on the parish concerned with lists of castles and other buildings that were still standing, and which were destroyed and the general state of the land. The surviving terriers, entirely drawn from the Reeves Collection in the National Library of Ireland and the Public Record Office of Northern Ireland, have been included as images on the site.

Detailed descriptions of each barony were also compiled and included with the bound volumes of the Down Survey, again ranging from functional to remarkably descriptive. These are not in the strictest sense ‘terriers’, in that they do not contain lists of land owners, they have been included as they comprise an important part of the survey. The barony terriers focus on the remarkable features contained in each, landmarks, important rivers, places of commerce and local customs. As a source of local history they are quite unique, are transcribed and can be viewed with the matching barony map.

The barony terriers are not all from a single source. Most derive from the Reeves Collection, but where missing are from the Annesley version of the Books of Survey and Distribution.

**Summary**

The Down Survey is regarded as the first systematic survey of Ireland. In their day, its maps are claimed to have been the most exact ever made with average errors ranging from ±2% to ±11% (Andrews). They formed the basis for the legal record of title for much of Ireland, virtually until the creation of the Ordnance Survey in the 1820's. The maps and accompanying books of data are now an invaluable resource for those studying the social history of 17th century Ireland.

Arising from the Down Survey, William Petty and Thomas Taylor are now arguably two of Ireland's most important surveyors.

While the motives behind the efforts of Petty and Taylor on the greatest of the plantation surveys are perhaps better consigned to history, the monumental importance of this milestone in Irish cartography does not deserve a similar fate. Arising from the creation of this permanent exhibition, the words of William Petty written more than 300 years ago may prophetically see his efforts "be of lasting advantage to the nation".

"Much of the information referenced in this chapter was researched by Dr. Frank Prendergast FSCSI FRICS, Emeritus Research Fellow, College of Engineering & Built Environment, DIT, Dublin as commissioned by The Management Committee of Ardgillan Castle in "The Down Survey of Ireland". Survey Ireland, 14, pp. 43-52 (unpub). The original may be accessed and downloaded at [http://arrow.dit.ie/dsisbk/4/](http://arrow.dit.ie/dsisbk/4/). I wish to acknowledge Frank's most generous support to me by making this available and also his encouragement, assistance, advice and good wishes." – Jimmy Laffey
Books of Survey and Distribution.

The Books of Survey and Distribution are a priceless resource giving us a most detailed insight into that significant 17th century period of our history. The Irish Manuscripts Commission, in 1962, issued these publications that were prepared for publication by Brendán Mac Giolla Choille, M.A., with introductions by Robert C. Simington D.LITT. The series is based on abstracts from various surveys and instruments of title between 1636 and 1703.

They are compiled for each Irish County and taken from the original set of Books of Survey and Distribution, also call Distribution Books, formerly in official use and now lodged in the Public Record Office in Dublin. All the counties of Ireland are included in the original series which consisted of twenty strongly bound large folio volumes covered in green velum in which the county names or names and the Quit Rent Office serial number are printed in gold lettering on the spine of each volume. The further endorsement “Down Survey” is printed between the name of the county and the serial number. The county of Galway is contained in Volumes 9 and 10 of the original books and are in Volume III in the collated books by Simington.

The hard copy books are available for reference from Galway County Libraries and these may be viewed, photographed or photocopied as desired while ensuring that they are handled with the appropriate care and respect.

In addition to this the Irish Manuscripts Commission has now made these available online and the Galway book, Volume III, may be accessed at ...

Each Volume has a contents section and it is important to view this initially and depending on the level of research that is required to read the appropriate sections.

As a minimum it is strongly recommended that the General Introduction (sample above) is read as this gives a great insight to the context in which the authors made their deliberations and the sources used. This is initially very general in nature and applies to all volumes but later, its 26 pages, goes into the entire process in great detail under the headings such as Legislation and Sources, the Gross, Civil and Down Surveys, Restoration Instruments and Title, Commission of Grace A.D. 1684-1688, Alphabet of Placenames, Origin and Purpose while in addition referencing previous publications on the subject.
Each volume has its own specific introduction to the specific county details contained therein – see Volume III above for County Galway. This introduction details the specific survey used for that county. More specifically it details various facts relating to parishes and baronies and explains the absence of information for example as well as detailing how these were compensated for by including alternative sources.

This section should always be referenced when researching a specific area or region as may contain important explanations.

In addition there are other most informative sections such as ‘Petty’s Maps of Galway, Athenry and Loughrea’, the ‘Creation of Galway baronies’, ‘Boundaries of the County’, ‘Abbey Lands’ and the ‘Ancient Divisions of the County Galway’ (see across).
The information contained in the main Text section of the Books of Survey and Distribution could perhaps be best described as its heart and soul as this lies at the very core of what is of most interest to persons who examine these manuscripts. It is organised by parish within each barony. In this example it is covering the ancient civil parish of Lackagh which is in the Barony of Clare.

Within that framework it lists the names of the proprietors of lands therein in 1641 and goes on to describe landscape and terrain in great detail, the number of ‘unprofitable acres’, the number of ‘profitable acres’, the total number of profitable acres disposed of under the relevant Act and finally the recipient of these lands after confiscation.

From the examples above we can see Patrick Darcy as being the owner of Lackaghbeg where the terrain is described as being ‘arrable & good pasture containing heathy pasture’, a turlough half profitable and a parcel of rocky pasture half profitable. The eventual recipient is Thomas Sadler. Similar details are provided for all areas within the Lackagh parish and it is important to become familiar with the abbreviations which are listed in preceding sections of the Books.

Another useful means of accelerating research is by use of the Preceding index where all areas mentioned are listed in alphabetical order and thereafter by barony.

From the extract opposite we can see mention of Lackaghbeg, Lackagh Castle, Liscannan (now Liscannaun) and Lodgecan (now Lydcan).

The final pages of the Books of Distribution and Survey form the index to person’s names in the main text. These names include the 1641 proprietors, the grantees under the Acts of Settlement and Explanation and other proceedings and the names of purchasers in 1703 of lands forfeited in 1688. This is indexed by surname and list the page(s) where that name is recorded. This is extremely useful in situations where there is a requirement to record all of the different areas where proprietors were in possession of lands. The introductory note (as above) details a complete explanation of the Index.

The listing opposite records Darcy, Patrick, as being listed on pages 90 and 103 and these relate to his lands at Castlemoyle, Kilmoylan (90) and Lackaghbeg (103).

In addition it is notes that he also has considerable properties in Dunmore (pages 286, 292, 301 and 303-4) and in Kiltartan (page 52).
The 1641 Depositions are witness testimonies by mainly Protestant men and women, from all social backgrounds, concerning their experiences of the 1641 Irish rebellion. The testimonies document losses of goods and chattels, military activity and the alleged crimes of the Catholic Irish rebels, including assault, imprisonment, the stripping of clothes and murder. This body of material is unparalleled anywhere in early modern Europe and provides a unique source of information for the causes and events surrounding the 1641 rebellion, and for the social, economic, cultural, religious and political history of seventeenth-century Ireland, England and Scotland.

There are two types of deposition: the statements taken down within a year or two of the events they describe and those collected during the 1650s, principally as evidence against defeated rebels. The earlier ones are more-or-less spontaneous reports; the later ones, though they contain much of value, are more formulaic and depend on the quality of a deponent’s memory. In all, nearly 4,000 depositions (20,000 pages) or witness statements, examinations and associated materials, bound in 31 volumes, are extant in the archives of Trinity College, Dublin. They are difficult to read (some are virtually illegible); the spelling is inconsistent and erratic, as is the use of grammar and punctuation. Eleven volumes contain depositions relating to Leinster, ten to Munster (seven of these cover County Cork), two to Connacht and eight to Ulster. The Ulster volumes contain a total of 1,559 depositions, 344 of them by women. Commissioners collected the depositions relating to counties Antrim and Down in the early 1650s, whereas all of the depositions taken in County Cavan date from the 1640s. The remaining Ulster counties contain a chronological spread across the two decades.

Certain information was standard to each deposition. The name and address of the deponent was always recorded, and in many instances the occupation and age also appear. If capable of writing, the deponent usually signed (or left a mark on) his statement, as did the commissioners who committed the oral testimony to paper.
Information analysed for example provides a detailed breakdown of the twenty depositions relating to County Londonderry, by fifteen men and five women, which were collected between February 1642 and August 1653. From the surnames it appears that the bulk of the deponents were of English extraction (Moore, Nixon, Smyth), but others were probably Scottish (Ervine, Fergusson, Graham) and a few were probably native Irish and Catholic (O’Laverty, MacGahern). All but four deponents indicated their occupation.

The women described themselves as widows or wives; five of the men were gentlemen and three were soldiers; then there was a clerk, a husbandman, a tanner and a weaver. Only four men gave their ages. A high proportion (ten people, two women and eight men) signed their names, suggesting some level of literacy, and six left a mark.

Settlement patterns

The depositions constitute the chief evidence for the sharply contested allegation that the rebellion began with a general massacre of Protestant settlers but are also invaluable sources for the history of the late sixteenth- and early seventeenth-century plantations and other expropriations. Material in the depositions vividly recaptures these land transfers and the settlement patterns of the newcomers as they built fortified mansions, villages, schools and churches; cut down woods and drained and enclosed land; and nurtured the development of urban settlements and proto-industry (tanning, iron-making, glass-making, cloth-making and so on). The testimonies in the depositions also bear witness to the extent to which the Crown had managed to ‘civilise’ and ‘Anglicise’ Ireland. For at the heart of any colonial venture was the long-held determination to impose on Ireland an English legal, political, administrative, tenurial and honour system, together with the English language and religion (Protestantism), English
‘civility’—dress, customs, codes of behaviour—and English (lowland) economic and agricultural practices. The depositions vividly recapture the extent to which the English system of landlord–tenant relations and a lowland commercial economy had become established in Ireland by 1641, as well as how individual landlords had improved their lands by promoting tillage, maximised profits from their mills, exploited the estate’s natural resources and introduced new breeds of cattle.

A handful of depositions specifically mention the plantations as a cause of the 1641 rebellion. Sir Phelim O’Neill, one of the leaders of the 1641 rebellion, allegedly chastised George Creighton, a minister and a Scotsman who had settled in Virginia, Co. Cavan, for bringing ‘Plantacions into our Landes’ (TCD, MS 833, f. 233). A gentleman from County Monaghan, Alexander Creichton, overheard the insurgents ‘say they wold never lay downe arms, till their church were putt into its due place, and that all the plantacion Landes were given to the right owners’ (TCD, MS 834, f. 109v). This is precisely what happened elsewhere. On 22 September 1642 William Baxter, a gentleman from County Fermanagh, swore that Ross McArt McGuire seized his lands at Rathmoran, c. 1,000 acres with an annual rental of £200, in County Fermanagh on the grounds that they ‘belonged to his father before the said plantation’. Baxter also listed his other losses, which illustrate how prosperous he was: twenty horses and mares worth £210; ‘howsehould Stuffe’ worth £40; corn (in the field and in the barn) worth £110; and ‘30 li. of debts & areareas of rent’ (TCD, MS 835, f. 192).

Some of the deponents described how an individual or their parents had settled in Ulster during the early decades of the seventeenth century. For example, on 19 July 1643 Francis Leiland, a yeoman from County Armagh, swore that: ‘hee this deponent hath lived within the parrish & Countie of Armaghe for the space of thirty yeres together last past [i.e. since 1613] and above & by that meanes very well knew the Cuntry & many of the Cuntry people thereabouts: And is verely perswaded that when the present Rebellion begun there were of the English and Scotts protestants dwelling within the two parrishes of Armagh and Logghall the number of eight thousand at the Least men women and children protestants the most of which the deponent is verely perswaded were murthered & putt to death by the Rebells, by drowning burning hanging starveing the sword & by other cruell deaths and torments: & that but a very few escaped’.

Leiland went on to recount the ‘distruccio & the burning of the Churches of Armagh & towne & of Castle dillon & other howses Castles & buildinges most of
which this deponent saw on fyre by the Rebells those braue Rojall [royal] plantacions there are quite demolished wasted & of all the former Inhabitants (saveing the base irish) depopulated’ (TCD, MS 836, f. 98v). Vivid though Leiland’s account was, his figures for those who had settled in Armagh and subsequently perished there were grossly exaggerated. Recent research on deaths in County Armagh, where some of the worst atrocities did occur, suggests that between 600 and 1,300 settlers actually died (or between 10.5 and 25 per cent of the total settler population of 5,000).

**Income and material culture**

Bearing in mind their biases, the 1641 Depositions nevertheless reveal much about pre-war settlement patterns, and from this it is possible to determine the numbers of craftsmen and skilled workmen resident on a lord’s estate or in a neighbouring town. For example, during the early decades of the seventeenth century, the Scottish planter Andrew Stewart, Lord Ochiltree (later Baron Castlestewart), oversaw the growth of Stewartstown, Co. Tyrone, into a proto-industrial settlement of three gentlemen, 24 tradesmen—a ditcher, shoemaker, tailor, carpenter, butcher, malt-maker and some weavers—and a schoolmaster. The 1641 Depositions also provide an invaluable, albeit impressionistic, insight into pre-war levels of income and material culture.

For example, Lord Blayney deposed on 11 July 1643 that he lost his castle at Blayney in County Monaghan, together with goods and riding horses worth £237, plate (£500), linen (£500), and beasts, cattle and sheep (£925). There was ‘More howsholdstuff in his 2 howses worth at least 1000 markes, ready money £296, due debts £400, a library of bookes worth £500’, besides other things that he could not recall. In all, Blayney estimated that the insurgents had inflicted £13,873–8–4 worth of damage on his property, goods and livestock, and that he had lost an annual rental of £2,250 (TCD, MS 834, f. 74v). The family had come a long way in just two generations. Back in 1604 the king had rewarded his father, Sir Edward Blayney, a Welsh soldier who had served in Ireland during the Nine Years’ War, with 2,000 acres provided that he built a castle for ‘relief of Monaghan’. Within a decade Blayney had built his castle, fortified the town and secured the region for the Crown. Gaelic landownership persisted longer in Monaghan than in other Ulster counties, yet Blayney’s estates continued to grow as the family speculated in land, and by 1641 they amounted to 24,572 plantation acres centred on the baronies of Cremore, Dartree and Monaghan. Given their strategic importance, it is little wonder that the insurgents seized the town and targeted the castles of Monaghan and Blayney.
The Down Survey Website

The Down Survey of Ireland Project was funded by the Irish Research Council under its Research Fellowship Scheme. The project began on 1 October 2011 and was completed on 31 March 2013. The original phase of the project involved identifying and digitising surviving copies of county, barony and parish maps. We are very grateful to the numerous archival and technical staff in the institutions listed under ‘Project Partners’ who assisted us in this process. The second phase involved building the database from the Books of Survey and Distribution and these were incorporated into Geographical Information System written by the project team. As part of the GIS, the set of county maps were overlaid onto a Google Earth layer, along with the late nineteenth-century Ordnance Survey map. The project added a complete set of townland polygons to these images and then connected the modern and seventeenth-century data together.

The Ordnance Survey and Google Maps Layers

The one inch to one mile (1:63,360) edition of the Ordnance Survey of Ireland was published from the 1860s on 205 sheets. It was intended to be a more accessible set of maps than the six inch to one mile (1,500 sheets) or the original 25 inch to one mile (15,000 sheets) editions. The 205 sheets have been digitised and joined together to form a seamless map of Ireland. The late 19th-Century maps were chosen to provide a bridge between the Down Survey and the modern topographical maps and satellite images derived from Google Maps and Google Earth.

Main Features

The website allows the user to use its many and varied features to access information. The main menu contains information about the website itself, the Down Survey maps where available, the Landowners by name and Ownership by religion with an introduction to and links for the 1641 Depositions.
User Guide

This website recommends that you use a modern browser. The site is equipped with an excellent User Guide that will assist you in navigating through some of the most frequently used searches. After this, and as you become more familiar with the site, you will start to further explore many other features that will allow you to access much more information and save your searches.

The following is an example of just one of many examples where the user, in this instance, is seeking to find “who owned the land in my parish in 1641 and 1670”.

http://downsurvey.tcd.ie

The information provided by the Down Survey reveals detail of many landholdings at townland level. This is geo-referenced in the Historical GIS area of the website in the top navigation bar.
If you click on *Landowner by Name*, you will see a standard Google map of Ireland. Use the standard Google navigation tools to zoom into and scroll around the map.

The townland data is extremely detailed and is visible only at maximum zoom level. Zoom in until the townland boundaries become visible.
Select by clicking to activate the information window that contains all of the 1641 and 1670 data for that townland. This window appears above the selected townland, so you may need to click and drag the map to bring it into view. Active links in the window are denoted by an underscore, clicking on one of these will open a new tab in your browser to show the result. For instance, you can click on a 1641 landowner's name and a new tab will open showing all of the townlands that that person owned.

You can then put their name into one of the 1670 search bars to see how their position changed over that period. Remember that your first search result remains in the first browser tab and can be returned to at any stage.
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