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Cover image: embankments at the Danube waterfront of Regensburg "Donaumarkt" made of re-used Roman material, probably Carolingian (S. Codreanu-Windauer, BLfD 2014).

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The history and archaeology of the Irish colonial landscapes of Richard Boyle, 1st earl of Cork, c.1595-1643

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This paper outlines the results of a inter-disciplinary project on the Irish estates of Richard Boyle, the 1st earl of Cork. Conducted over three years, by historians and archaeologists at University College Cork, Ireland, and sponsored by the Irish Research Council, this new study mapped and analysed the colonial landscapes created by Boyle (father of Roger Boyle the famous chemist) in the Irish province of Munster. This research completely re-evaluates the way in which colonial entrepreneurs such as Boyle developed their Irish lands. The earl of Cork had no interest in short-term financial gain and, in point of fact, sought the long-term dynastic succession of his family in southern Ireland. At the same time, he masterfully portrayed himself to his contemporaries as model agent of the English colonial project in Ireland.
Keywords: early modern Ireland, colonialism, colonial entrepreneurship, iron-smelting, estate management

L'articolo delinea i risultati di un progetto interdisciplinare triennale sulle proprietà irlandesi di Richard Boyle, primo conte di Cork, condotto da storici e archeologi dell'University College Cork (Irlanda) e finanziato dall'Irish Research Council. Lo studio ha mappato e analizzato i paesaggi coloniali creati da Boyle (padre del famoso chimico Roger Boyle) nella provincia irlandese di Munster. Questa ricerca rivaluta completamente il modo in cui gli imprenditori coloniali come Boyle hanno sviluppato le loro terre. Il conte di Cork non aveva un interesse economico a breve termine ma di fatto aveva un obiettivo a lungo termine, puntando sulla successione dinastica della sua famiglia nell'Irlanda meridionale e ritraendosi al contempo con i suoi contemporanei come agente modello del progetto coloniale inglese in Irlanda.
Parole chiave: *Irlanda, colonialismo, imprenditorialità coloniale, fusione del ferro, gestione della proprietà, età moderna*

In late 16th- and 17th-century Ireland, the process of English colonization called 'plantation' was a consequence of the large-scale confiscation of lands from both elements of the native population who, unsuccessfully, had rebelled against English government authority, the Gaelic Irish (or 'Old Irish') and the Anglo-Irish (or 'Old English', descendants of Anglo-
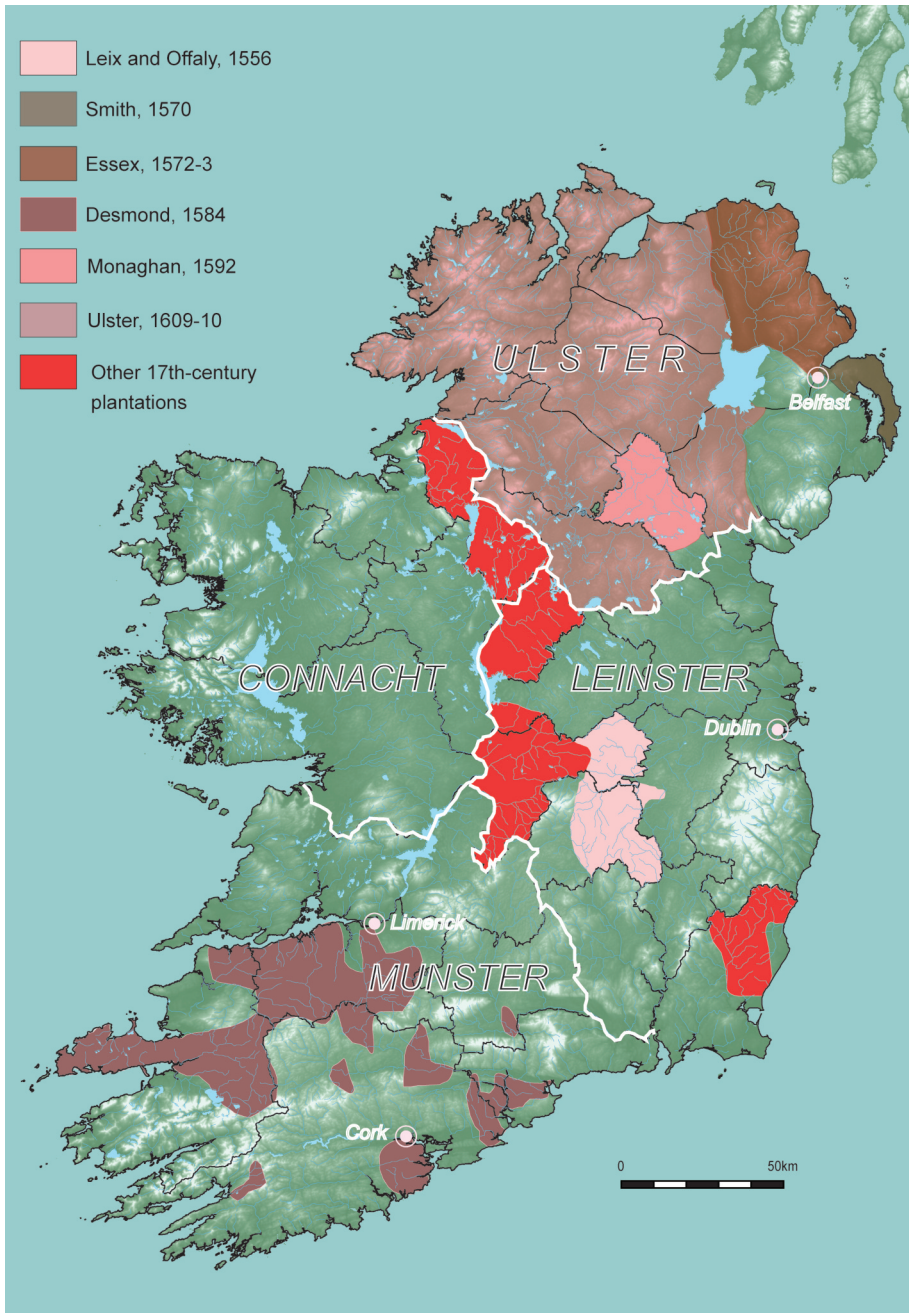
Fig. 1. The Irish Plantations (after Andrews 2000).

Legend:
- Leix and Offaly, 1556
- Smith, 1570
- Essex, 1572-3
- Desmond, 1584
- Monaghan, 1592
- Ulster, 1609-10
- Other 17th-century plantations

Norman colonists of the later medieval period). The rebels' estates were designated to be mostly re-distributed among 'New English' — and mainly Protestant — settlers. For example, some 300,000 acres (121,410 ha) in the southern Irish province of Munster, the inheritance of the rebel Earl of Desmond and his supporters, was confiscated by Elizabeth I after Desmond's defeat and death in 1583. Several plantations were attempted in Ireland beginning with Laois-Offaly in 1550 and ending with the proposed Connacht plantation in 1636 (fig. 1). Only comparatively recently, however, have attempts been made to use the written sources and archaeology to map the landscape impacts of the Irish plantations (see, for example Lyttleton 2013 and McLaughlin, Lyttleton 2017). To date, the study reviewed here is clearly the most ambitious interdisciplinary research project of its type focusing on this important, crepuscular period of Irish history.

Richard Boyle, first earl of Cork (1566-1643) occupies a unique and curious place in the historiography of early modern Ireland and the wider 'British' state (fig. 2). Despite having attained a position of considerable

Fig. 2. Richard Boyle's tomb at Youghal, county Cork erected in 1620. Boyle was interred here after his death in 1643. The wrought iron railings in the foreground of the photograph were manufactured at his ironworks, and in all likelihood that at Lisfinny, County Waterford.

political power in the final years of his life as a member of the English Privy Council and as Lord Treasurer of Ireland, with just one notable exception scholars still tend to pass quickly over his role in the increasingly tangled politics of the period (Little 1996; Canny 2001). Instead Boyle usually appears in the history books as something very different: the most remarkable and successful of all the New English — and Protestant — colonial adventurers who were active in early Stuart Ireland. In an Age of Plantations he is considered Planter Number One, the veritable poster boy for the English colonial project in Ireland. In the southern province of Munster he succeeded where his better known contemporary Sir Walter Raleigh had failed, developing a private empire that dominated the region, and which, with its heavy emphasis on industrial enterprise and urban expansion, re-moulded its economy and society. And, of course, he grew rich — very rich — at the peak of his career circa 1640 reckoned to be the wealthiest landowner anywhere in the Three Kingdoms (Stone 1965, p. 140). That the origins of his vast wealth had the whiff of criminality about it; that he had managed through sheer wit and cunning, and tireless endeavour, to break free of lowly social origins in Kent to acquire first a barony, then an earldom across the Irish Sea; that he founded one of the principal new dynasties of the seventeenth century, marrying his children into the upper echelons of the English and Irish nobility: all of these achievements marked Boyle out to his contemporaries, and to historians ever since, as an archetypal figure who embodied the transformative potential of English colonialism in Ireland (Canny 1982).

In 2012 the Irish Research Council awarded funding to a research project that was designed to recreate Boyle's Munster estate and chart its evolution, 'The Colonial Landscapes of Richard Boyle, 1st earl of Cork, c.1602-1643'. The project was interdisciplinary in nature, drawing together historians to gather the archival data of Boyle's acquisitions of land, his leases, tenants, and rents, archaeologists to map and survey the landscapes of Boyle's endeavours in the province of Munster and further afield, and art historians to provide new insights into the elite, material world of Boyle and his family. The final goal of the project is to produce a monograph study of the Boyle estate in Munster, charting how and from whom it was acquired, how it was peopled with different types of tenant and managed by Boyle and his agents, how it integrated with and separated from the native world that surrounded it, what its impact was on the existing urban, rural, woodland and coastal economies of the province, and finally how, in 1641-2, it was nearly all swept away in a major Catholic rebellion. That book is currently being written.

1. The Boyle archive

The material word of Richard Boyle consists not only of a vast array of properties such as lands, castles, churches, mansion houses, mining and smelting enterprises spread over 15 Irish counties but also his personal papers. The Boyle archive, held principally in the National Library of Ireland, and at Chatsworth House, Derbyshire (the seat of the Duke of Devonshire, his descendent) represents one of the most remarkable records of a life lived by someone not of royal birth in early modern times. Besides Boyle's diaries, which commence in 1612 (fig. 3), and were published long ago together with a selection of his personal correspondence, there are all manner of documents about him — private financial documents from 1593 onwards, deeds relating to his estates from 1595, rentals beginning in 1604, weekly receipt-and-disbursement accounts covering most years 1619-43, mining and iron-making accounts of vari-

Fig. 3. Extract from Richard Boyle's diary for December 1621. Boyle assiduously kept this up to date for over 30 years, the last entry being made in August 1643 a few months before his death (Courtesy Trustees of the Chatsworth Settlement).

ous dates, a letter-book as lord justice of Ireland, 1629-33, as well as (in Chatsworth) twenty-four bound volumes of correspondence and other writings spanning most of his career, along with (in Dublin) a further seventy-three folders containing miscellaneous private and official papers of all sorts. Here, plainly, is the stuff for a definitive biography, for anyone so disposed. But here too is the material to accomplish something never previously attempted in Irish historiography – to tell the story of the greatest colonial estate in Ireland and its creator, from its earliest and murkiest manifestation, late in the reign of Elizabeth I, until Boyle's death, his empire almost gone, in September 1643.

The key to Boyle's estate is not just the patent book held at Chatsworth, important as that is, but the group of four schedule-books which Boyle had compiled around 1641-2 that record the title deeds and leases of his personal estate and the estates he set aside for his sons Richard, Lord Dungarvan, Lewis, Lord Kinalmeaky, and Robert Boyle, which are extant, in fine condition, in the National Library of Ireland. Very likely there were schedule-books for his other sons Roger and Francis Boyle as well, but they seem not to have survived. The schedule-books enable the story of the greater part of his landed acquisitions to be reconstructed with real accuracy. They identify when and from whom he acquired each separate parcel of his holdings, and record how he then leased (and re-leased) them, to whom, for how long, and for how much rent. It is in the minutiae of such matters that the actual nature of his colonial behaviour is best captured.

The Richard Boyle who keeps peeping through the pages of this collection is not an English Protestant oppressor of the native Irish and scourge of papists, though he certainly donned that mantle at different stages of his career, when it was politically necessary or otherwise advantageous to him. Nor does he emerge as just another unscrupulous New English colonial adventurer, a greedy land-grabbing crook and asset-stripper. Boyle was indeed crooked, and a land-grabber, but he was an asset-protector, not an asset-stripper. Though often a hypocrite, he exercised a degree of scruple that best suited his prospects for advantage and the circumstances within which he operated. He is possibly best understood as an entrepreneur in a colonial setting.

With a businessman's instinct for the main chance, Boyle did not lose sleep over paying his clients or hirelings as little as possible in order to maximise profits. Yet he had sense enough to know who to short-change, and who not, in order to develop long-term business relations and extend the influence that his escalating wealth could purchase. He had deep links into the native Irish and Catholic communities of Munster, much deeper than previously thought. If threatened he would stop at nothing

to defeat his adversaries, but surprisingly, considering his subsequent reputation, he would sometimes seek to accommodate one-time foes when he had secured victory over them. He was not especially vindictive. Goodwill mattered to him; it was useful, helping to insure the continuity of his revenues and generate future opportunities. Mostly, though, he was a self-made man, anxious to escape his past, and, ever restless, kept pushing and climbing. He looked to secure a permanent place for himself and his family in the social hierarchy, to go as high as his money would allow. Embracing dynasticism as his lodestar from at least 1612 (when his second son, and eventual successor, was born), he adopted a long-term perspective on affairs that was as much concerned with creating a legacy for his children and kindred far into the future as it was about boosting his immediate revenues. Through the colonial opportunities that were available in Munster and in the burgeoning Atlantic world he would make the Boyle family great, a power in the land. They would hold many of the chief castles of the province, control its main roads and river routes, dominate several of its towns. They would exercise military as well as political and economic power, his sons obtaining commissions in the crown forces, their lands defended by a colonial militia — a private army — composed of their tenants and followers.

Except, of course, it nearly proved a delusion: for all his pragmatism and precaution, in the 1630s Boyle took his eye off the situation in Munster, increasingly preoccupied with securing his position in England. Though troubles had been flickering for years (Edwards 2013), the native rebellion of 1641 seems to have caught him by surprise. Until his death in September 1643 he was confined to the vicinity of Lismore and Youghal, most of the rest of his lands overrun, and he had to bury his second son Lewis, Viscount Kinalmeaky, killed by rebels at Liscarroll in north county Cork in 1642. A year-and-a-half after his own death, in March 1645, most of the Boyle family left Ireland, escaping shortly before the final siege of Lismore; it would be left to his eldest son and namesake Richard Boyle, second earl of Cork and first earl of Burlington, to put the empire he had created back together (Little 2004; Barnard 1996).

2. The archaeology of Richard Boyle's estates and industrial enterprises

Very early on Boyle had developed a strategic vision for his Munster estates, based on a desire for dynastic succession and also, it seems, a genuine concern for the successful development of the English colonial project in Ireland. As demonstrated by the creation of a solid colonial infrastructure for his estates, over three decades, Boyle's vision never

succumbed to short-term financial gain. He clearly understood, long be-fore his contemporaries, that the success of the plantation process re-quired the creation of a wide-ranging and inter-connected economic net-work. In his diaries and notebooks, Boyle proudly adverts to what he called his 'public' or 'commonwealth works'. As a colonial entreprenuer/adventurer, his primary concern (despite frequent asser-tions to the contrary) was his own and his immediate family's personal enrichment. But as he was soon to discover, the pursuit of these goals in Ireland required an enormous investment in colonial infrastructure, to meet the present and future needs of the English settlers who were to become the tenants of his vast estates and the artisanal populations of his urban centres. Such 'good works for civilising of the commonwealth', in turn, required the construction of fortified towns, defensible castles (and the provision of garrisons for them), churches, market houses, schools, almshouses and bridges. In total the Boyle project identified 11 urban settlements either created anew (e.g. Clonakilty and Castlemar-tyr, county Cork) or significantly expanded (e.g. Bandon and Youghal, county Cork) by him. Boyle also controlled over 145 religious properties such as abbeys and parish churches in counties Cork, Dublin, Kildare, Limerick, Mayo, Roscommon, Sligo, Waterford and Wicklow, along with some 66 castles and mansion houses throughout Ireland.

New research, which forms the core of the Boyle project, has estab-lished that his overall landholdings were greatly in excess of the 43,000 English acres commonly attributed to him: possibly twice this figure (fig. 4). All told, we have been able to demonstrate that the Earl of Cork owned lands and industrial concerns in the Munster counties of Cork, Clare, Kerry, Limerick, Tipperary, and Waterford, in Dublin, Kildare, Meath, Offaly, Westmeath and Wicklow, in Leinster, and in the Connacht counties of Mayo, Leitrim and Roscommon. Even with today's technolo-gies and land-based transport systems, overall control of such geograph-ically dispersed properties would not be without its difficulties. At one level, the extent of Boyle's holdings and his evident ability to manage these efficiently raises questions about the state of Irish roads in the first half of the 17th century. Recent archaeological fieldwork and archival work on Boyle's diaries have established that he could make long-distance journeys by coach throughout Ireland, even within the depths of winter. Boyle went to enormous expense to construct new bridges, to span the widest rivers within his Munster estates, and al-ways from his own resources, and considering that one hundred years after his death, all road users in Ireland would have continued to expect to cross rivers by ferry rather than by bridge, his bridge-building spree in the 1620s and 1630s is truly remarkable, even by European stan-
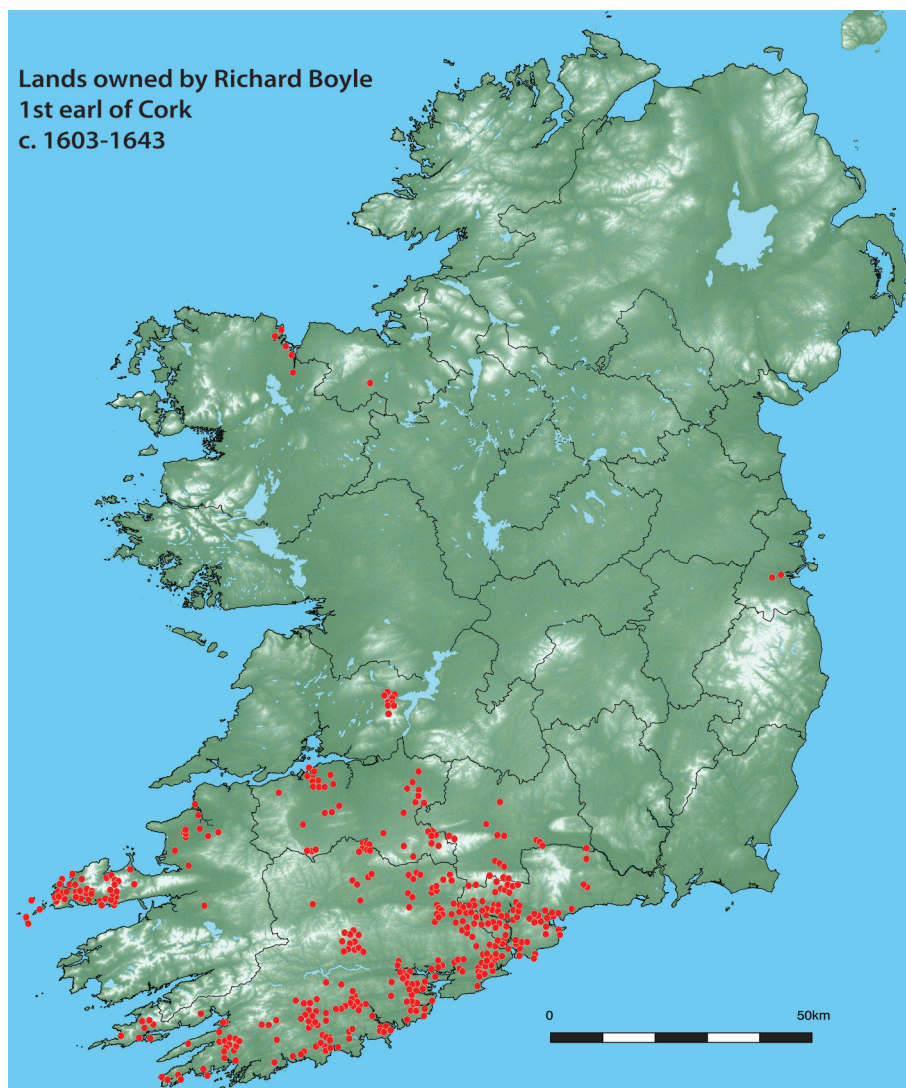
Fig. 4. Distribution of Richard Boyle's estates in Ireland.

dards. During the course of this project archaeological surveying led to the discovery of a section of an original stone abutment of one of his stone bridges built at Fourmilewater, county Tipperary, built in 1636 to span the river Nire.

Urban living, one of the core values of plantation ideology, was something that the earl took very seriously, expending large sums on the creation of new towns and in the development of existing ones. Indeed, it

can be argued that his promotion of urban centres and market towns such as Youghal, Bandon, Lismore, Tallow and Cappoquin, is reflective of a strategic vision for the economic development of the province of Munster, not just in his lifetime, but thereafter. Indeed, his overall contribution to urban development in Munster, and the associated commercialization of the region, is without parallel in seventeenth-century Ireland. The plantation town of Bandonbridge, which he liked to believe was his own foundation, has recently been described as the 'colonial showpiece' (MacCarthy-Morrogh 1986). Boyle, it appears, was initially attracted to it as an economic proposition rather than as an opportunity to demonstrate his planter credentials. As in all of his colonial projects, his commitment to its physical development, after he purchased the town in 1619, was never less than total. It became the only walled plantation town in the south, to compare with those of Ulster, in terms of its geometrical street design and services but above all in its success as an urban entity. For Boyle Bandon provided a unique opportunity for him to create a blueprint for an idealised colonial lifestyle, or more properly, one created to his own tastes. Certainly, the leases he offered in the town, after 1614 (before he controlled all of it), were already requiring tenants to build houses with slate roofs, and with stone or brick chimneys. As a showpiece of colonial endeavor, what mattered most, it would appear, was that its success and physical presence transcended the region. Bandon bore comparison to the towns of the Ulster plantation in the northern quarter of the island, and Boyle himself compared it to Londonderry, and Luke Gernon, after a visit in 1620, to Leicester in England (MacCarthy-Morrogh 1986). Entirely walled by 1627 and with a population of perhaps 2,500 (Londonderry had 2,000) by 1641, it had become iconic of the values Boyle believed he personally stood for.

The earl of Cork has long been commonly associated with the first large-scale capitalization of the Irish iron industry, and to a certain extent this characterization has both defined and even limited historical perspectives on his overall contribution to the Munster plantation. Boyle was unquestionably Ireland's most important seventeenth-century ironmaster, but as this project has established he also successfully prospected for and created at least four lead/ silver and copper mines in counties Waterford, Kilkenny and Tipperary. He also operated the most successful and productive iron-ore mines in Ireland, some six in total, mostly on his Munster estates. Of these his Ballyregan iron mine in county Waterford, which opened in 1615, was around 60 ft (18.28 m) in depth, making it in its day the deepest of its type in either Britain or Ireland. The Boyle project unearthed a substantial archival record at Chatsworth House for Boyle's mining activities, which include lengthy ac-
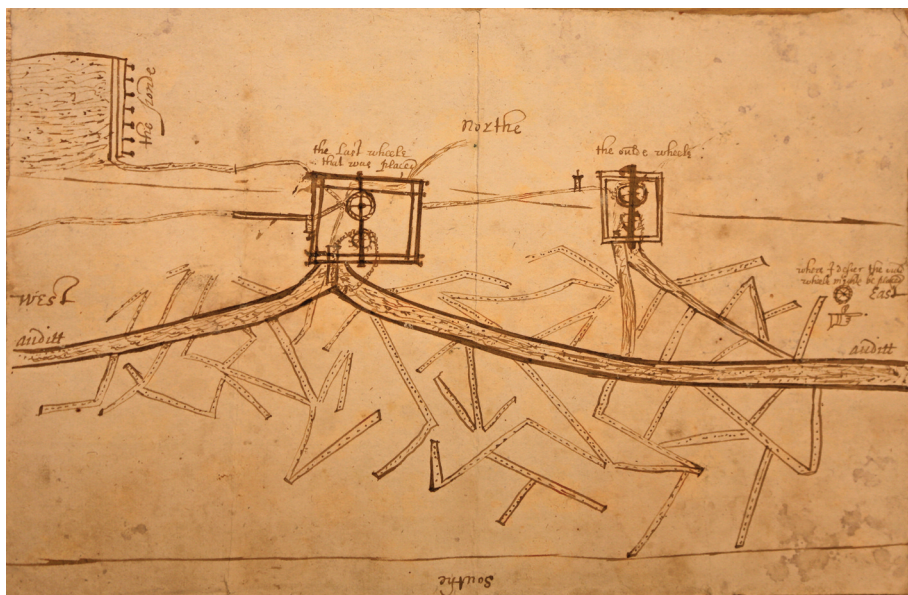
Fig. 5. A detailed sketch of the Richard Boyle's mine at Ballyregan, county Waterford, made by Richard Blacknall, the mine's overseer and dated 7th February 1621. Clearly shown are its water-powered pumping machinery and the adits or mine workings. This is the oldest surviving drawing of an Irish mine (CHA, Cork MSS, CM//12/136, Courtesy Trustees of the Chatsworth Settlement).

counts for production and expenditure at his Ballyregan mine. A detailed sketch of the mine, made by Richard Blacknall, the mine's overseer and dated 7th February 1621 (fig. 5), showing its water-powered pumping machinery and the adits or mine workings, is now the oldest surviving drawing of an Irish mine. Archaeological fieldwork also established the extent of his operations at Ballyregan, where extensive remains survive. This includes the now flooded remains of the main adits, spoil heaps, and exploratory pits, and a large section of the millrace leading water to his water-powered pumping machinery.

Boyle set up four blast-furnaces in county Waterford, including that at Araglin, of which extensive remains survive *in situ* (fig. 6), and later established other ironworks at Scarriff, county Clare, and in counties Cavan and Leitrim. He also encouraged some of his English tenants to build a rolling and slitting mill (which enabled the type of narrow iron rods suitable for tradesmen such as nailers to be more cheaply produced), at Tallow, county Waterford, in 1624: this was the second such mill to have been set up in Ireland (Rynne 2009). Boyle was also the first to introduce into Ireland the manufacture of steel through cementation in a
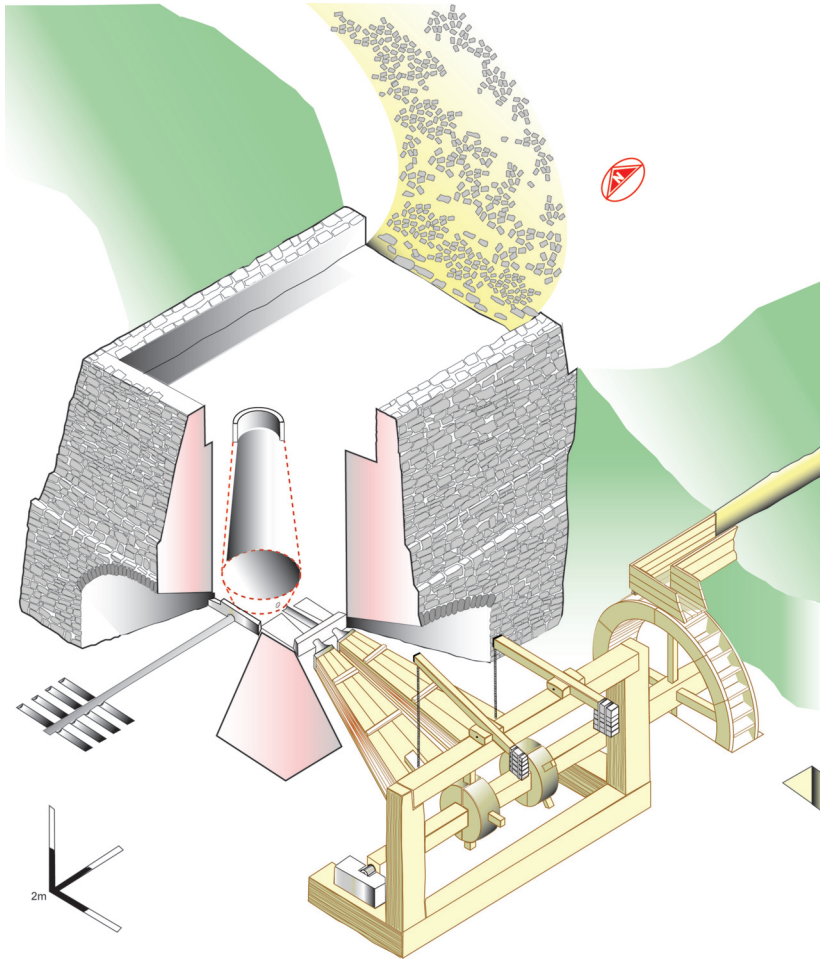
Fig. 6. Reconstruction of the blast furnace at Araglin, county Waterford, originally built by Richard Boyle in 1625 and operated by him up to around 1641. Smelting on the site was recommenced in in the early 1650s by his son, also Richard Boyle, the second earl of Cork.

reverberatory furnace, which led to the earliest Irish steelworks of its type to be established at Ballintree (Ballintlea ?), county Cork, in 1629.

For Boyle and his contemporaries Ireland's woodlands originally provided a seemingly limitless supply of pipestaves for the English and Dutch markets. The woodlands on Boyle's Munster estates provided timber for three main industrial enterprises: the manufacture of pipestaves, iron smelting, and conversion of cast ('sow') iron to wrought iron, and shipbuilding. The earl exported some four million barrel staves, sourced from his estates along the valleys of Bandon and Blackwater rivers, via

Youghal, between 1616 and 1628. It is too commonly assumed that colonial entrepreneurs such as Boyle were essentially wasteful and negligent of Ireland's considerable woodland resources. New documentary research on the Boyle archive has enabled us to challenge the almost universally held notion that Boyle, along with other ironmasters, 'asset stripped' Ireland's natural woodlands. On the contrary, there can be little doubt that Boyle protected his woodlands. He hailed originally from Kent in England, where in the Weald (and in neighbouring Sussex) tenants servicing the local iron-making industry were required to coppice the woods the better to sustain them; in southern Ireland he followed exactly the same practice. As a result, at no stage in the thirty-year history of his iron-smelting business did he run out of timber for charcoal. This observation leads to another, equally striking conclusion: that the 'colonial' character of the Munster iron industry that Boyle dominated requires redefinition. As well as being sustainably managed, it thrived through cooperation with native suppliers, not crude exploitation: most of the wood that Boyle used for his ironworks was purchased from others, many of them Anglo-Irish and Gaelic Irish providers.

Finally, the Boyle project has also revisited and completely reappraised the earl of Cork's military role in the Early Stuart state. When Boyle was raised to the peerage, one of the reasons for his promotion was his contribution to the defence of the Munster Plantation, in particular his creation of a large colonial militia among his tenants and neighbours. That military patrolling and the policing of natives was crucial for securing the English colony in Munster (and other colonies elsewhere in Ireland) has only recently drawn the attention of historians (Edwards 2004; Hunter 2012). Boyle took his responsibility to defend the southern plantation more seriously than any other planter. Not only did he hire a strong team of English captains and army veterans to take charge of his forces, but he recruited them as senior tenants across his lands, while supplying weapons to the rank and file from his personal store at Lismore. There was also a marked native element in his militia, which had hitherto escaped the notice of historians, the most striking part of the force, indeed, his company of shot, contained a sizeable number of Gaelic and Anglo-Irish gunners serving side by side with Englishmen and Welshmen. Boyle created a force of 1,900 men, including cavalry, divided into two main forces guarding the eastern and western regions of his Munster estates in counties Cork and Waterford which became, in effect his own private army. In addition to this he also paid for the completion of two of the English government's main artillery fortifications on the south coast of Ireland, Elizabeth Fort built to defend the city of Cork, and the fort at Waterford, an important port trading with the rest of Britain and Europe.

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