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Rundale and 19th Century Irish Settlement: System, Space, and Genealogy

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Abstract: The rundale system has held a certain fascination for Irish geographers and historians due to its prevalence in the cartographic record and comparative absence from historical record. As a system of cultivation and landholding characterised by share allocation through collective governance, popular conflicting accounts have interpreted it both as a functional adaptation to the ‘ecological niche’ of the Irish Western Seaboard or, controversially, as a modern survival of an archaic mode of production of great antiquity. To date, little attempt has been made to impose conceptual clarity on the rundale system, and agreement on its essential characteristics is absent. Beginning with an overview of the current state of knowledge, this article presents a critical assessment of the manner in which rundale has been conceptualised, and the dominant methodologies employed in its study. This assessment reveals a number of features and mechanisms which researchers have identified as its defining characteristics. As a result, many have tended to present it as the product of singular ‘prime movers’ such as its unique demography, or to characterise it in strictly spatial terms as a morphological oddity. Following this critical appraisal, and drawing upon recent works in resilience ecology, an alternative model of rundale is presented in terms of its institutional, spatial, and historical complexity. This model suggests that the rundale system be defined as a configuration of spatial and social-structural characteristics, varying according to place and time.

Keywords: rundale, ecology, resilience, system, identity, demography, commons

Introduction

It is not difficult to appreciate why the rundale system has engendered such fascination for students of Irish historical geography; the notion of an agricultural system based not on competition, but on reciprocity and cooperation offers much to capture the imagination, and the prospect that its ubiquity should have escaped physical record has sparked much debate – as yet unresolved – between historians,

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geographers and archaeologists. Students of rundale are drawn from a wide range of disciplines, from historical geography, archaeology, history and sociology, to cultural studies, legal history, political philosophy, and demography. Each of them have offered their own narratives of the origins, evolution, and decline of the rundale system, and captured a range of elements from its unique clustered morphology and openfield agrarian system, to its governance institutions, and the cultural practices of its inhabitants (Anderson, 1995; Bell and Watson, 2008; Buchanan, 1958; Evans, 1939; Flaherty, 2013; McCabe, 1991; McCourt, 1950; Slater, 1988; Whelan, 2012; Yager, 2002). Over a century of scholarship has produced a rich and diverse body of knowledge, which despite the sophistication and depth of its individual authors, is collectively lacking in conceptual order.

This article attempts to resolve outstanding ambiguity in the ways rundale has been conceptualised, and in the narratives brought to bear on its unique ecology, its evolution, and its subsequent decline. Beginning with an overview of some dominant features of the system, existing debate on rundale, historical settlement patterns, and communality (both within and beyond historical geography) is critically examined. An attempt is made within this discussion to derive and categorise some commonalities amongst authors, and to define a number of competing approaches to conceptualisation and research. Following this exercise, an alternative conceptual model is offered drawing on resilience ecology, and applied to a number of documented cases from the nineteenth century.

The term rundale is quite ambiguous, and is commonly used to describe a distinct, yet diverse set of rural settlement features, such as openfield agrarian systems based on infield and outfield, nucleated village clusters or ‘clacháns’, joint holding and partnership tenure, systems of share allocation based on usufruct, subdivision, partible inheritance, and local institutions of resource governance. Desmond McCourt (1950) began his doctoral thesis on rundale by stating that the concept of a singular ‘rundale system’ was redundant. Rather than a bounded geographical entity, the rundale system, according to McCourt, consisted of a configuration of characteristics varying according to place and time, existing within a framework of broad similarity. Although this renders any depiction of a homogeneous *rundale system* problematic, existing literature identifies a number of common structural and institutional characteristics:

‘The normal economic unit was the joint-farm which was leased in common by the joint-tenants, or partners, who co-operated in the work of the farm, each contributing his share of the joint-rent and combining in the make-up of “coars” or teams, for ploughing and other work in common... The land of the joint-farm was held in rundale by which individual holdings, to assure equal quality as well as quantity, consisted of open plots and strips scattered through the arable land... Where physical conditions gave rise to patches of natural meadow by stream, or river, or in many marshy hollows, the same principle of equality governed the allocation of lots, which were held in proportion to the arable shares... This morcellation of property led to confusion and inefficient husbandry, but, carried to excess by continual subdivision of holdings among heirs, especially when

population was rapidly increasing relatively fixed areas of land in the nineteenth century, it frequently undermined the whole system... To maintain equality of holding over a period of time and especially to accommodate an increasing number of holders within the open-field community the strips of meadow and arable were redistributed periodically by lot, usually every year, or every three years or so” (McCourt 1955b, pp 47-48).

The institutions and practices of rundale were thus oriented toward the equalisation of opportunity, and distribution of risk amongst joint stakeholders, governed by institutions of collective allocation and regulation. Structurally, the nucleated spatial patterning of rundale settlements has served as its core diagnostic criterion (O’Sullivan and Downey, 2008a, 2008b; Lindsay, 2007), as illustrated below in Plates 1-3. Such settlements, ubiquitous across certain regions of Ireland such as the Western Atlantic fringe, and in pockets of settlement such as those of South Kilkenny and East Antrim, are characterised by an absence of typical functional entities associated with villages (i.e. churches and public houses), their haphazard layout, and the close spatial proximity of habitations where residents were often connected by close bonds of kinship.



Plate 1. Townland of Glen, Clare Island c.1840 (6-Inch Ordnance Survey)



Plate 2. Gola Island c.1840 (6-inch Ordnance Survey)



Plate 3. Douagh [sic] Village, Achill Island (c. 1880-1900)

Farms were typically divided into a permanently cultivated infield surrounded by an outfield which, although not under continuous cultivation, could be set in periodic tillage when demand outstripped that supplied by the infield alone. Furthermore, the outfield and its surrounding common lands served a critical function in the distribution of the commune's fertiliser; throughout the growing season, during which the infield was set under crop, the outfield functioned as a grazing ground for the livestock of the commune, thus ensuring that the forthcoming crop remained undisturbed. The practice of off-site herding known as 'booleying' took place in temporary dwellings where village herders, often women and children, would tend to livestock. Following harvesting of the autumn crop, livestock returned to graze on the infield stubble, providing a crucial source of fertiliser for subsequent growing seasons. This concentric division between infield and outfield is evident in Plate 2 above, which illustrates the general morphology of Gola Island, Co. Donegal.

The apparent haphazardness and disorganisation of both the physical layout and cultivation strategies of rundale belie a number of innovations unique to such systems, which served to enhance their capacity for agricultural productivity in harsh conditions. The rundale system is typically depicted as one confined to marginal lands, and is often interpreted as a mode of resource management ideally suited to such circumstances. Consequently, many rundale settlements adopted the practice of setting crops in 'lazy beds', a labour-intensive form of spade husbandry in which crops were sown in ridges interspersed with furrows. This technique provided drainage, aeration, and a measure of protection from wind, while allowing selective application of scarce fertilisers (Bell and Watson, 2008; Evans, 1979). Rundale also facilitated labour pooling which enabled communities to conduct extensive reclamation works, as were required throughout the eighteenth century as population grew.

According to Elinor Ostrom, such systems offer a number of advantages over private ownership when resource appropriators are faced with problems such as '... (1) the value of production per unit of land is low, (2) the frequency or dependability of use or yield is low, (3) the possibility of improvement or intensification is low, (4) a large territory is needed for effective use, and (5) relatively large groups are required for capital-investment activities' (Ostrom, 1990, p. 63). Central to coping with these constraints within the Irish rundale system, was the manner in which share allocation was managed collectively. Arable land was typically assigned in lots, comprised of scattered strips located in areas of varying soil quality across the infield, according to which each tenant received land in a series of strips allocated by collective lottery (Knight, 1836; Piers, 1981 [1682]). Permanent boundary demarcations such as fences and ditches were often absent, given that livestock required free reign of the infield lands in order to provide fertiliser during the winter months. Evidence suggests that an associated practice of share reallocation known as 'change-dale' survived within many regions into the nineteenth century. In certain instances, rundale settlements were presided over by a communal council or deputed headperson who held responsibility for

managing share allocation, organised necessary remedial works, and organised the collection and delivery of rents (Ó'Danachair, 1981). Although the continuity of this practice is difficult to establish, contemporary accounts suggest something of its prevalence across rundale-dense areas throughout the nineteenth century (Dewar, 1812; Knight, 1836; Lewis, 1837; Sigerson, 1871).

Despite the ingenuity of such an approach to resource maximisation, the rundale system did not exist in isolation from its broader social and geographical contexts, nor was it immune to contradictions from within which served to undermine its basic institutions. Although rundale thrived under conditions favourable to demographic and physical expansion, its viability suffered under the pressures of market and landlord-driven enclosure, the necessities of combined subsistence and cash-crop production under the estate system, and the economic and demographic watershed of the Irish famine (1845-1852). In the post-famine era, a succession of landlord and state-endorsed redistribution schemes served to re-establish former occupants of these 'congested districts' as discrete private proprietors, albeit with considerable variation according to local estate management regimes (Bell, 2007; Breathnach, 2005). Contradictions internal to the system also hastened its demise, such as the accumulation of private capital which in turn undermined the capacity of rundale to reproduce itself as a communal entity (Slater and Flaherty, 2009). Furthermore, the system was prone to interpersonal conflicts concerning boundary demarcation which often ended in troublesome litigation (McCabe, 1991). Eventually, economy and environment conspired to undermine the very means of subsistence on which the tenantry depended through the arrival of disease, and the growth of international trade and labour markets, which fundamentally altered the incentive structure of landlordism and estate management (Flaherty, 2014).

The internal complexities of pre-famine Ireland: Estyn Evans and beyond

The rundale system sits somewhat problematically within existing models of Irish settlement (Flaherty, 2013). It has proven difficult to derive a coherent concept of rundale, owing to its multiple definitions as a form of open-field settlement characterised by infield-outfield cultivation and periodic share redistribution; a variety of nucleated settlement centred on the *clachán* village; a cultural mindset or predisposition to cooperation, and a demographic regime. The problem of conceptualisation is worsened by the simultaneous appearance and absence of certain elements within individual settlements at different points in time. Labour pooling in the forms of *cooring* and *meitheal*, for example, remained common practice in many districts into the twentieth century, yet for many such areas, any trace of rundale had long since vanished. Problems of definition were apparent in the time of Arthur Young, who made little mention of possible associations between the partnership farms he observed on his tour, and the typical institutions of rundale (Andrews, 1986, p. 242). Therefore, it is difficult to identify any definitive feature as quintessentially 'rundale', and any attempt to construct an exhaustive diagnostic template is hampered by haphazard regional coverage of source evidence. As a result, our existing knowledge relies on a diverse range of

cases, data sources, and contributors from numerous disciplines

Some have attempted to categorise rundale according to its geographical distribution, as with Buchanan's typology of Ireland field systems (1973), or Whelan's identification of a *small-farm* settlement archetype located along the Western Atlantic seaboard. The regions contained within Whelan's model correspond closely to the distribution of clachán settlement identified by McCourt (1971) in his countrywide mapping of clustered settlements from the six-inch ordnance survey. The long-contested nature of this *small farm* archetype owes much to the work of the 'Queen's school' of historical geography, exemplified by the works of Estyn Evans, Ronald H. Buchanan and Desmond McCourt. Its most prolific period of research extended from the 1940s to the 1970s, during which Evans in particular employed a methodology of 'ethno-archaeology', drawing on fieldwork and contemporary oral history. His methodology was subjected to a series of critiques by J.H. Andrews (1974, 1977), resulting in sustained questioning of his generalisations regarding the prevalence of homogeneous peasant systems of Celtic descent in Ireland. Andrews claimed that Evans' conclusions were insufficiently grounded in empirical evidence (see also Gardiner, 2011). Much debate over this *small farm* archetype has centred on the widely contested notion of the antiquity of the rundale system prevalent within the regions bounded by this archetype, its pattern of nucleated settlement, and its associated social institutions and practices of collectivisation. An over-generalisation of this archetype thus formed the basis of a 'peasant subsistence' model of pre-famine Irish agriculture, which glossed over the internal complexities of Irish settlement distribution, social stratification, and agricultural activity (Doherty, 1999).

Writing in 1939, Evans hypothesised that the rundale system was one of great antiquity with potential origins in the Iron Age, a position reaffirmed in his 1958 paper where he stressed the pre-Celtic origins of clustered settlement across the 'Atlantic ends of Europe' (Evans, 1958, cited in Dodgshon, 2012). In the decades since Evans' foundational works, debates in Irish historical geography surrounding the explanatory frameworks and regional typologies brought to bear on Irish settlement have proceeded in critical dialogue with the work of the Queen's school. Despite much disagreement on the historical reach of rundale, a degree of consensus exists regarding its essential spatial and physical characteristics. This limited consensus reflects the dominant manner in which rundale has been approached to date; by interpreting it primarily as a variant of nucleated settlement. In this manner, the social relations characteristic of rundale have often been conflated with its associated physical features of infield-outfield cultivation and clustered habitation, which lend themselves more readily to identification in both historical and cartographic record¹. Existing debate has tended to partition, and to a certain

¹ Such clustered habitations are commonly referred to in the literature by the non-native term of 'clachán.' Unlike typical Irish villages, clacháns were usually comprised of lower-standard housing in haphazard layout, and lacking in functional entities such as churches and public houses (Evans, 1967, p. 48; Whelan, 1995, p. 23). Although the term 'clachán' is itself problematic as a non-native descriptor, its use within existing literature is well established: 'The unit of settlement and the social

extent overemphasise, the spatial characteristics of rundale; consequently, it has frequently been tackled as a spatial oddity, requiring interpretation in context of a landscape of other settlement forms (Johnston, 2007).

Such concern with physical form has manifested in a variety of ways in existing research, with some authors addressing the uneven penetration of the estate system under successive waves of Irish plantation, and its role in shaping settlement, and regional boundary demarcation. Therefore, although authors such as Jones-Hughes have argued that the imposition of the estate system in many regions resulted in an obliteration of previous settlement forms, others have argued that the plantation process was considerably more nuanced (Proudfoot, 1993, p. 223). Citing the Ulster plantation of 1610, Proudfoot observes how Gaelic units of division such as the *ballybetagh* and *ballyboe* were retained in order to accommodate incoming planter groups, resulting in an adaptive rather than oblitative pattern of colonial settlement, which saw the coexistence of both pre- and post-plantation settlement forms into the eighteenth century (1993, pp 222-223). Duffy further complicates this reading as one of a relation between secular entities, by observing how the ballybetaghs of late medieval Monaghan were subsequently amalgamated into ecclesiastical parish units, drawing attention to the multilayered nature of colonisation, and the role of numerous agents in its execution (2007, p. 55).

Dodgshon (2012) offers a model of settlement change depicting patterns of English landscape evolution from early agglomerated field systems, to later enclosures. He offers a compelling case for viewing the many variants of openfield farming across Ireland and Scotland as originating from a need to maintain year-round fertilisation by infield grazing, and the winter housing of livestock to accumulate manure. With regard to Ireland, studies such as Clare (2004) have also shown how, as a consequence of progressive colonisation, the legal concept of commonage solidified under the Anglo-Norman manorial system, where it continued to exist along with parallel modes of customary rights of access evident within early Irish law tracts. The subsequent, piecemeal Irish enclosure ‘movement’, by which peasant commonage came progressively under private control, thus offers another layer to this complex pattern of physical change. Others have opted for a more direct approach centred on physical diagnosis, and O’Sullivan and Downey (2008a, 2008b, 2008c) have outlined a number of essential diagnostic criteria associated with post-medieval ‘compact farm clusters,’ which they suggest consist primarily of a *clachán* as their characteristic pattern of physical settlement, and *rundale* as their associated farming system.

Ambiguities over the status of rundale as a relic of the distant past, and

nucleus in Rundale society was the “clachan”, or cluster, of cottages, containing the related families of the joint farm’ (McCourt 1955b, p. 49). The word ‘rundale’ itself was never in common use in Ireland, and was instead imposed from without by agricultural commentators, although it may be attributable to the Irish words *roinn* and *dáil* (Anderson, 2013). Arthur Young remarked, on his tour through Mayo in 1776: ‘Farms are generally let in partnership, but the term *Rundale* not known’ (1892, p. 259).

disagreements over its longevity and extent, must inevitably contend with data attesting to its substantial prevalence across many regions of Ireland throughout the nineteenth century. Poor law union data from the Devon Commission shows that for the Co. Mayo unions of Westport and Ballina in the year 1845, 83% and 68% of lands respectively were held under common or joint tenancy². Comparable rates are evident within many unions across Ireland, such as Dunfanaghy, 42% (Co. Donegal); Ennistimon, 53% (Co. Clare, and site of Arensberg and Kimball's fieldwork); Scariff, 71% (Co. Clare); Kenmare, 50% (Co. Kerry), and Skibbereen, 43% (Co. Cork)³. So resilient was rundale in particular regions into the late nineteenth century, that William Henry Smith saw fit to retain, in his 1882 update of Richard Griffith's instructions issued during the tenement valuation of 1853, specific direction on the enumeration of rundale holdings⁴. In short, despite

² *Devon Commission. Appendix to minutes of evidence taken before Her Majesty's Commissioners of Inquiry into the state of the law and practice in respect to the occupation of land in Ireland.* Part IV. H.L. (672) (673) 1845 xxii, Appendix 94, pp. 280-282. See also McCabe (1991) for a discussion of the compilation of Devon Commission estimates.

³ Calculated from figures contained in *Devon Commission...Appendix 94* (op. cit), tabulating 'Area of Union in Statute Acres', and 'Total Number of Acres held in Common or Joint Tenancy.' Figures at union level exhibit greater variation than those reported in previous studies such as Almquist (1977); when aggregated to County level, such variation is lost, owing to significant differences in the extent of recorded communal tenure within individual Counties. For example, despite 50% of the lands of the union of Kenmare, Co. Kerry being noted as held in common, the union of Caherciveen – also falling within Co. Kerry – shows none. McCabe (1991) has questioned the precision of these figures, given that acreages of joint tenancy were reported to the Devon Commission by Poor Law Union clerks working from union rate books. McCabe's suggestion that joint tenancy was consistently under-enumerated appears to be borne out by comments from the Clerk of Caherciveen: '*Land in this union not being let by the acre, and there being no survey showing the acreable extent of each holding, the answers to the queries cannot be given...The holdings are stated to be held at bulk rents, not at acreable rents; under the circumstances, the particulars required have not been ascertainable from the Union officers*' (*Devon Commission...*, Part IV, appendix 94, p. 284). This is a curious comment in light of the union's recorded figure of 0 for acreage held in common, considering that the presence of 'bulk rents', which likely indicates collective payment by townland, points toward the presence of joint tenancy rather than holding in severalty – although this joint payment may itself have remained merely as a formality, concealing the gradual devolution of communes into individual holdings, owing to the length of the lease in question. McCabe confirms as much, by offering his estimate of 58% of the county of Mayo as held in common, working from tithe applotment and ordnance survey namebooks indicating townlands liable for rent in bulk (1991, pp 501-506). Although this figure matches Almquist's (1977) aggregation of union joint tenancy estimates for the County of Mayo sourced from the Devon Commission (also 58%), his methodology nonetheless reveals – encouragingly – that specific forms of joint tenancy may have survived into the nineteenth century, above levels previously surmised. Furthermore, it adds another layer of rigor to existing estimates of the extent of rundale, such as McCourt's clachán distribution map compiled from first edition 6-inch ordnance survey maps (1971, pp 138-139).

⁴ *Copies of the instructions issued by the late Sir Richard Griffith in the year 1853...* H.L. (144) 1882. Paragraphs 30 and 32 of the instructions to valuers and surveyors indicate that each occupier of a rundale settlement was to be enumerated separately. However, documents from Griffith's

considerable ambiguity over its origins, prevalence, and longevity, sufficient evidence abounds permitting us to speak both of a concrete rundale system, and to treat it as a substantial component of the social and geographical history of Ireland throughout the nineteenth century and beyond.

Contrasting approaches to rundale, communality, and historic settlement in Ireland

Existing approaches to the physical, social, and cultural aspects of rundale may be categorised according to five types: (1) Anthropogeographic; (2) Historical-cartographic; (3) Ecological-adaptive; (4) Residual-communal; and (5) Demographic. Together, these five perspectives incorporate dedicated researchers, historians, and commentators on rundale, political figures who have drawn on the assumed antiquity of Irish communalism, and others whose work illuminates the cultural and demographic conditions often associated with the rundale system. Although not all have directly studied rundale, their published works point toward a number of possible approaches to a number of phenomena generally associated with common property systems. A summary overview of this historiographical complexity is tabulated below in Table 1. Column two (*dominant ontological level*) notes the implicit conceptual level at which the authors cited under column six (*representative authors*) have typically focused. Some have conducted detailed research into the spatial distribution of rundale, others of a more generalist vein have sought to explain the circumstances under which it may have thrived in the post-medieval period, whilst others have explored the demographic conditions central to the explanatory narratives of other studies.

Before elaborating this summary model, it is important to note that the individuals categorised below should not be conceived as mere straw determinists; each have offered their own paradigmatic contributions which continue to influence and inspire ongoing research. Although some have had little to say of rundale in particular, they have offered either detailed analyses of conditions

valuation of 1852 for the Barony of Aran indicate that this was not always possible; the townland of Inisheer, comprising 84 individual occupiers, was here enumerated as a single joint unit comprising 1,400 acres, under immediate lease from Peter and Henrietta Barfoot. Such difficulties lend further weight to the possibility of under-enumeration of rundale, owing to potential inconsistencies in the manner in which rundale settlements were recorded. Unfortunately, more precise investigation of the organisation of production at settlement level – an examination of rent rolls and leases – remains patchy, and as McCabe has indicated above, may not in itself indicate the presence of communal cultivation, merely a residual formality of payment by townland or in bulk. See Reilly (2003) for further notes and examples of rundale enumeration in Griffiths valuation (according to Reilly, Griffiths's field staff held to the convention of bracketing joint tenants in their final returns – a practice Reilly accepts as indicative of rundale. Unfortunately, it is difficult to surmise from the forms alone whether a settlement reporting such joint occupation or bulk payment was likely to exhibit classical 'diagnostic criteria' of rundale such as communal regulation by council, or periodic redistribution).

central to its nature and development, or emphasised certain specific elements – such as cultural practice, communal mentality, or demography – over others. Their works and comments have offered methodological insight to others, and a set of enduring interpretive frames. This typology merely represents a number of possible logical pitfalls to which one may succumb by over-emphasising a particular systemic level at the expense of its relation to others. Together, the works of those individuals cited under *representative authors*, are in many cases extensive and diverse, although this table is defensible as a representation of certain dominant themes within their works.

Table 1. Contrasting approaches to rundale and communality					
Perspective	Dominant ontological level	Interpretation of rundale	Methodology	Epistemology	Selected authors
1. Anthropo-geographic	Spatial-ethnological	Social-agricultural system and spatial form of early historical origins and continuity (from iron age)	Archaeological-ethnological / field and source oriented	Flexibility in source validity – cartographic, physical and qualitative	Estyn Evans, Desmond McCourt, Ronald Buchanan
2. Historical-cartographic	Spatial	Nucleated spatial form of late medieval – seventeenth century origin	Cartographic	Prioritisation of cartographic data and formal historical record	John Andrews
3. Ecological-adaptive	Ecological	Functional post-medieval adaptation to specific ecological conditions	Historical-geographical	Greater theoretical development, reliance on cartographic and formal historical record	Kevin Whelan
4. Residual-communal	Cultural-ideological	Form of co-operation sustained by communal mentality	Ethnological-historical / theoretical	Interpretivist, validity of folk accounts, myth, legend and backward extrapolation of contemporary residual communal practice	Tom Yager, David Lloyd, James Connelly

5. Demographic	Ecological – demographic	Demographic regime of expanded fertility through early conjugal union, facilitated by potato subsistence and reclamation	Historical-demographic	Positivist, objective measurement, deductive logic, demographic / statistical sources	K.H. Connell
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(1-2) Anthropogeographic & Historical-cartographic

To date, the most prolific and evocative debates on the rundale system have centred on questions of its origins, antiquity, and of its place within broader settlement patterns, as discussed above. In terms of epistemology, both approaches publicly disagreed on the respective merits of cartographic and documentary data, against that of ethnological and archaeological field data and theoretical inference. Given the prominence of these debates within Irish social science, and their role in shaping the terrain of subsequent research on historic settlement, a closer inspection of this debate is warranted.

In 1939, Evans first forwarded his divisive hypothesis concerning the origins and antiquity of communal agriculture in Ireland, establishing a contentious methodology which involved projecting recent observations into the distant past: ‘It is now clear that throughout western Britain and in many parts of western and south-western Europe, some kind of communal cultivation is of great antiquity,’ with recent survivals of rundale constituting ‘...the interest of archaeological fossils, preserving in an unimpoverished way many of the characteristics of ancient Irish society’ (Evans, 1939, p. 24). Writing some years later, Evans reaffirmed the capacity of such a mode of reasoning to account for the vagaries of Irish settlement beyond that provided for by cartographic and archaeological record:

‘There is no incontrovertible evidence for the existence of the single-farm system in pre-Celtic Ireland, but both literary and archaeological evidence shows that the raths, cashels and crannogs of the Gaels were the isolated homes of chieftains and freemen. Where then did the peasantry live? Neither history nor archaeology furnishes us with much evidence, but working back from the recent past, we can say that the traditional unit of settlement accompanying rundale or infield/outfield system was the hamlet or kin-cluster’ (Evans, 1976, p. 53).

Evans’ work sought to remedy a perceived deficiency in research conducted under the confines of source-driven methodology, by hypothesising the existence of a form of clustered settlement (contrary to the ‘Einzelhof’ pattern emphasised by Seeböhm and Meitzen), on the basis of logic, and contemporary field data. Accordingly, Evans described his chosen methodology as a ‘...brand of anthropogeography’ (1992, p. 1), rooted in the regional personality constructs of cultural geographers such as Carl Sauer and H.J. Fleure, under whose direction Evans had previously studied. Evans’ contemporaries took particular issue with his methodology which, according to Kevin Whelan, served to cast Irish society

in a monolithic peasant framework. Consequently, his inferences engendered a sense of an Irish peasant world as: ‘...fundamentally a timeless one, a little tradition which endured through the centuries, and with underlying continuities with remote pre-history... by studying these timeless survivals in the modern world, one could trace the whole sweep of Irish settlement history from its genetic origins in prehistory’ (Whelan, 2000, p. 187).⁵

The most public manifestation of this disagreement appeared in a series of papers critical of the Queen’s school, delivered by J.H. Andrews to the annual conference of Irish geographers in 1974 and 1977. In these papers, Andrews largely dismissed both their methodology and findings, arguing that approaches which failed to consider more concrete source materials were ultimately deficient. Initially, Andrews took issue with their method of logical elimination:

‘Why have their theories gone so far beyond the facts? A possible answer may be found in the kind of ethnic determinism which, as we have seen, has fallen out of fashion in other countries. Villages are Norman, towns are Scandinavian, raths are Celtic. What can clachans and rundale be? On the ethnic hypothesis, the only people left to attach them to are the people who preceded the Celts’ (Andrews, 1974, p. 7).

Such criticisms paint Evans’ approach in an historic and ethnic-determinist light. Ultimately, Andrew’s dismissal is indicative of broader paradigmatic shifts within human geography of the time, which although slowly coming under the influence of various cultural and Marxist critiques, was as yet showing clear defence of its positivist parameters. Accordingly, oversimplified categories such as rundale and clachan were seen as far too limiting (Andrews, 1977, p. 9), and in this respect, Andrews’ criticisms are directed at a specific sub-genre of historical geography (exemplified by Evans), contrasting sharply with established academic convention⁶.

Ultimately, it fell to Evans’ student, Desmond McCourt, to impose some conceptual order upon the debate. In doing so, McCourt emphasised the ability of Irish settlement to consolidate and devolve in a complex pattern of waxing and waning. Regarding the long-term evolution of clustered settlement, McCourt suggested that clacháns were capable of evolving from single farmsteads subdivided over time, and conversely, single farmsteads were capable of devolving from

⁵ Similar criticisms were advanced by Charles Doherty: ‘However tenacious Irish custom and tradition may be, these attempts to span 1,000 years and more can hardly inspire confidence as a method of demonstrating continuity in the existence of the clachan as a settlement form’ (2000, p. 62). Ronald Buchanan later noted that, despite criticisms to the contrary, such formulations and frameworks were essential to ‘make connections across great distances of time and space, to stress ecological settings...and to show the relevance of space-time relations in the evolution of culture’ (Buchanan 1984, p. 133).

⁶ Andrews expressed concern over the potential for such a methodology, with its associated ethnic preconceptions to impede ‘...the researcher’s awareness of whatever regional or chronological differences may exist within his ethnic continuum’ (1974, p. 7).

depopulated clusters as circumstances permitted (McCourt, 1955a, 1971)⁷. In this respect, McCourt's consistent treatment of the rundale 'not [as] a homogeneous population at a given time, but of one exhibiting manifold features of variation inside a framework of broad similarity' (1947, p. 1), and within its broader historical context as 'scattered dwellings and compact farm units... [with the] possibility of the former at any time evolving into or emerging from the latter' (1971, p. 127), appears to be on steadier conceptual ground. McCourt is correct to emphasise the inherent dynamism of rundale, but it is necessary to look not only at its physical form, but at the conditions that allow such patterns of change from scattered to compact settlement, to occur (Slater and Flaherty, 2009, p. 4).

Therefore, it is essential that spatial change be considered in the context of the institutions which sustain its unique morphology. McCourt drew attention to the Irish law tracts, which suggest a potential basis for rundale formation in the first millennium, contrary to its depiction as solely a post-medieval phenomenon: 'They tell of an ordered agrarian society broadly stratified into free and unfree elements, the former possessing private land and occupying single-family raths, the latter living on tribal common land, subject to periodic redistributions, and forming partnership groups ('comorbships') out of which... small "villages" and rundale schemes arose' (McCourt, 1971, p. 152)⁸. While the historical and geographical scope of this statement is broad, it nonetheless seeks to get beyond reliance on cartographic evidence alone.

Despite its critical reception, there is clearly much of merit to the approach of the Queen's school, and Evans in particular employed a unique mode of reasoning with the explicit aim of overcoming what he saw as the 'arid minutia of an elaborate bibliographical apparatus' (Evans, 1976, p. 15). In this respect, subsequent criticisms appear less capable of dealing with questions of social structure and the cultural transmission of agricultural strategies, through an over-reliance on privileged documentary sources (Crossman and McLoughlin, 1994, p. 87; Graham, 1994, p. 194)⁹. Notwithstanding Evans's neglect of the diversity of class structure in rural Ireland, his comment that 'one must admire these scholarly aims so long as curiosity is not stifled by technique, and the scaffolding does not obscure the building' (Evans, 1976, p. 15) suggests that critical attention must

⁷ Such a position was also affirmed by Proudfoot, albeit over a much greater timespan, who suggested that the rath was capable of co-existing with a form of open cluster or 'proto-clachán' which left little physical trace (cited in Doherty 2000, pp 60-61).

⁸ The legal precursors to post-medieval customary law have been detailed and discussed extensively (Coghlan, 1933; Gibbs, 1870; Kelly, 1988, 1997; Nicholls, 2003; Wylie, 1975), although many have stopped short of establishing a connection between the law tracts, and the customary-legal institutions of the modern rundale.

⁹ Andrews himself claimed that the proper course of action rested not within theoretical elaboration or abstraction: 'The best prospect for putting the discoveries of Evans and his students in a historical context may lie, not in the "cold facts of land and landscape" but in the more careful differentiation of socio-economic groups within successive Irish and Anglo-Irish populations' (1977, p. 9).

be paid to the methodologies and modes of reasoning underpinning research, as well as the constraints and assumptions which may be implicit within different approaches. Although contributors such as McCourt had already qualified certain historical ambiguities in the concepts of *clachán* and *rundale* by suggesting they be understood both as vernacular and descriptive terms, the key site of research focus according to critics of the Queens school, was its spatial form – which was to be studied primarily through existing documentary sources.

(3) Ecological-adaptive

Prominent in recent debate is the work of Kevin Whelan (1995, 1997, 1999, 2000, 2011, 2012), whose depiction of *rundale* as a functional adaptation to the specific ecological conditions of the Irish western Atlantic fringe has enjoyed much currency. Whelan's account is perhaps the most explicit in its rejection of the arguments of the Queen's school concerning the antiquity of *rundale*, locating it within the post-plantation era with particular concentrations of growth throughout the eighteenth century:

‘*Rundale* was a viable functional adaptation to a specific set of ecological and demographic circumstances. These ecological settings were overwhelmingly marginal, being on mountainous, hilly or boggy areas. The glacially scoured west-of-Ireland environment was characterised by a limited amount of arable land, a wet climate, high wind exposure, stone-infested thin drift, impeded drainage and excessive leaching... the use of a permanently cultivated infield surrounded by extensive commonage can be seen as an intelligent response to ecological conditions. It was an ingenious adaptation to an environment where fertile patches of glacial drift were frequently embedded in desolate expanses of bog or mountain’ (Mac Cárthaigh and Whelan, 1999, p. 77).

J. H. Andrews alluded to such a reading in his critical examination of the lineage and concept of *rundale*: ‘But should, say, an old hamlet with infield and outfield system be treated as a package of this type [*rundale*] when it is so common for some parts of it to occur without the others? Is it not just as reasonable to visualise each small group of farmers making its own uniquely individual adjustment to local circumstances? (Andrews, 1974, p. 7). Whelan's subsequent work (2011) emphasises this inherent dynamism more clearly, where he demonstrates the tendency of a *rundale* settlement near Kilkenn in Co. Clare to expand under population pressure from an original partnership lease of four shares in 1750. An examination of rents shows that by 1840, the original settlement of four families in quarter shares had grown to accommodate twenty-seven families, occupying shares ranging from 1/16, to 1/64.

It is difficult to explore the manner in which this ecological-adaptive process played out over the centuries as population grew – particularly in terms of regional inequalities – owing to a shortage of pre-nineteenth century demographic data. Vaughan and Fitzpatrick's published figures suggest an increase from 2,167,000 in 1687, to a peak of 8,175,124 in 1841, and others such as Braa have suggested that post-plantation migrations to western regions throughout this time may have

fuelled a demand for labour pooling as settlers brought new lands under cultivation, although evidence for this is limited (1997, p. 197). Smyth provides an intriguing contrast in this regard, noting that population remained steady in many districts of Munster and Leinster throughout the eighteenth century whilst doubling in the west and north, suggesting vast swathes of new settlement and colonisation (2012, p. 15). This inequality in the late eighteenth century population surge suggests something of a connection between rundale, and those western districts which experienced more dramatic increases.

The merits of ‘adaptation’ as a general explanatory device are apparent, and this interpretation of rundale fits with other accounts of the ‘logic of the commons’ which view labour pooling and risk equalisation as functional responses to the unique requirements of common pool resource governance (Ostrom, 1990). Furthermore, it allows us to abstract from the specifics of individual settlements and to grasp the general conditions (such as resource scarcity, population growth, settlement expansion, or a need to combine tillage and pasture), which may have produced greater densities of rundale in certain regions. Under such conditions, collective exploitation of marginal lands remains one of the few viable prospects in the context of a demand for excess labour, as would be required for labour-intensive activities such as reclamation. Many have cited this ability of rundale to devolve over generations from single units into pockets of high-density settlement facilitated by reclamation, and Currie (1986) has already corroborated such an account by suggesting that the growth of rundale was closely bound with local demography and prevailing labour supplies. James Anderson (1995) has also suggested that earlier forms of kinship grouping and more recent forms of collective leaseholding both gave rise to the physical nucleation characteristic of rundale. It appears that settlements, therefore, assumed two principal forms: those driven by ‘colonisation’, and those of ‘subdivision’, the latter of which shows limited variation in surnames, owing to internal expansion (Whelan, 2012).

This mode of reasoning maps well onto broader theoretical tendencies within human ecology and geography over the last half-century, which has moved ‘... from looking at society and culture as a kind of anonymous superorganism which tends to adapt itself to changing environmental conditions to a more differentiated perspective which recognizes that societies are composed of individual persons acting within given structures’ (Steiner and Nauser, 1993, p. 19). However, there is an inherent risk in narratives of the former kind of essentialising social structure and spatial form to the level of biological signification alone. Attention must also be paid to the role of agency in functional accounts, and organisational forms must be viewed as a product of historical natural-social interaction (i.e., the evolution of institutional spaces in which social and physical structures are recursively produced). There is a danger also of over-prioritising external drivers such as population when accounting for settlement change; in some cases, change was driven by contradictions internal to the system itself. Such was the case where individual members accumulated capital from peripheral industries, thereby undermining the collective basis on which the system rested (Slater and

Flaherty, 2009). Therefore, care must be taken to consider internal mechanisms of change, and the inherent fluidity of rules and conditions governing land use which are driven both by internal interactions between members, as well as between settlements and their local landscapes. Indeed, change is the hallmark of such systems, an understanding of which warrants neither excessive ecological, nor, as will be considered below, cultural determinism.

(4) Residual-communal

Some authors have attempted to locate the essential nature of rundale within the mind-set and mentality of its members. Writing on the village of Faulmore, Co. Mayo in 1976, Tom Yager commented that ‘...its palpable collective spirit led me to suspect that a more thorough-going communalism lurked in the past’ (2002, p. 154). Elaborating on the nature of this communal mentality, Yager further claimed: ‘It is safe to assume that co-operative work ties were cemented by a strong sense of neighbourly affiliation and a lively evening social scene, as I saw myself in Faulmore in the 1970’s. Rundale was more than a technical arrangement; it was a way of life’ (Yager, 2002, p. 162). Yager thus concludes, in his investigation into the origin and development of rundale, that a utilitarian ‘group mind’ formed the basis of the rundale system, emphasising community spirit as a prime determinant, and the historical permanence of collective sentiment in a manner similar to Evan’s extrapolations of pre-modern communalism. The broader extent of this collective spirit is difficult to establish, and ethnographies of the West such as that of Brody (1973) had already claimed that much of the communality depicted by Arensberg and Kimball in rural Irish villages was declining before Yager’s visit.

Yager was not the first to comment upon the relevance of communal mentality; Frederick Engels certainly read traces of such a mentality amongst the Irish in his *Origin of the Family...* (1978 [1884]), and K. H. Connell saw fit to distinguish communal tenure from severalty in terms of peasant mentality in his *Population of Ireland* (1950a). Nonetheless, despite the potential extent or potency of this communality, it is difficult to prioritise such a phenomenon as constitutive of systemic cohesion, given that it is itself related to underlying material-spatial structures, and broader social institutions. James Connolly was amongst the first to attempt to formally situate the Irish common property regime in its political and social context in the opening chapters of his *Labour in Irish History*, where he claimed that prior to the plantations of the seventeenth century, ‘communal or tribal ownership of land’ was the norm beyond Dublin (Connolly, 1944, pp 3-4). His account of colonisation as a war directed against, in equal measures, Irish political and social order, resonates with Nicholls’ (2003) and Kelly’s (1997) accounts of the difficulties encountered by the British in their imposition of new legal regimes in order to supplant the Gaelic order. The resultant ‘native mentality,’ with its attendant nostalgia, is born, therefore, of a conflict between forms of private and collective property.

Although this represents an idealism somewhat at odds with the historical extent

of common property (particularly in comparison with the ecological-adaptive model), others have argued that the notion of ancient communalism formed a potent narrative in which nationalism and socialism – and their attendant modes of property – were seen as inseparable components of a possible Irish independence movement (Lloyd, 2008). Emmet O'Connor has also suggested that Larkin was impressed with the potential for such notions of communalism to act as a basis for counter-cultural values, in opposition to those of bourgeois capitalism (Lloyd, p. 107)¹⁰. Given the extent of litigation which attended later survivals of rundale (McCabe, 1991), the extent to which the Irish peasantry may have idealised such a system remains doubtful.

Other commentators are less explicit in positing such a connection between materiality and mentality; Luke Gibbons has claimed that communalism constituted an essential basis for social order, which manifested outwardly in a form of altruism in times of need: ‘...far from being obsolete in Ireland, moreover, these sentiments formed the basis of the moral economy of the countryside as exemplified by the communalism of the “Rundale” system in Irish agriculture, and the close webs of affiliation through which rural townlands wove their identities’ (Gibbons, 1997, p. 253). This line of reasoning has much precedent in social theory, as Gramsci hypothesised a more general connection between past and present mentality in the form of folklore, which he claimed constituted: ‘...not so much the survival of an alternative conception of the world as it is...the residue of traditional conceptions of the world...It belongs implicitly to the framework of a fossilized and anachronistic culture’ (cited in Lloyd, 2008, p. 117).

Given the complex interplay between space, environment, and culture which was so central to rundale, it is equally difficult to discount the role of ideas and mental constructs entirely, as it is to accept them as prime movers. The centrality of culture and folk memory to the contemporary landscape, as detailed by Ó Catháin and O’Flanagan (1975) in Kilgalligan, serve as crucial reminders of the importance of cultural transmission as devices of spatial ordering. The potential risk of over-extending the role of ideas, therefore, echoes that of previous approaches which have sought to penetrate beyond historical record and the post-plantation era on the basis of modern survivals. To consider mentality apart from its material context is to risk discarding crucial information on how ideas ‘...do not just operate at the level of the psychological mind-set of the participants but are actually determinants of the diverse economic and social structures of this agrarian system’ (Slater and Flaherty, 2009, pp5-6).

(5) Demographic

The question of population has remained central to discussions of the extent of

¹⁰ Others are less sympathetic to notions of ancient communalism, a phenomenon which Eoin MacNeill (1921, 1937) views more as an emergent clannish mentality on the part of an already instituted ancient aristocracy: ‘The political system of Ancient Ireland was no more communal than that of the Roman republic...The ancient Irish “clan system” or “tribal system” are very modern inventions...The dogmatic assertion that communal ownership existed seems to have intimidated or hypnotised some writers’ (MacNeill, 1921, p. 144).

rundale from the eighteenth century onward. Demography is often cited as a critical determining factor in its expansion, particularly during the late eighteenth and early nineteenth century tillage boom which facilitated extensive subdivision and early marriage (Connell, 1950; McDonough and Slater, 2005; Slater and Flaherty, 2009). The influential works of K. H. Connell initially sought to account for the extraordinarily rapid rate of natural increase in Irish population in context of deficient statistical sources¹¹. Dismissing hypotheses attributing such increases to low sterility (fecundity), increasing marriage rates (nuptiality), decreasing mortality (Clarkson, 1981, pp 30-34), or a decrease in the deliberate restriction of birth, Connell concluded that pre-famine Irish population increases must be understood in the context of extended marital fertility. As a conundrum in historical demography, the question often arises as to why birth rates are not higher, given a theoretical upper maximum of 40 births per individual over a potential reproductive range of 30 years (Bongaarts, 1975)¹². As a result, questions concerning differential fertility, and explanations of settlement and population change in terms of reproductive behaviour, are typically approached from an examination of barriers to conjugal union formation, given that age at marriage may be considered a principal factor affecting birth rates in populations without intentional birth control (ibid, p. 292).

According to Connell, the explanation for Ireland's population increase throughout the pre-famine years resided in the factors of potato dependence, and the swing from pasture to arable in the wake of rising wartime grain prices toward the end of the eighteenth century. These economic conditions incentivised landlords to maintain an ever expanding population engaged in labour-intensive tillage, sustained largely by uninhibited subdivision and reclamation, both of which resulted in '...the sweeping away of the old restraints to marriage...the earlier a girl married, the more children she was likely to bear' (Connell, 1950b, p. 289). Connell pays rundale comparatively little attention in his seminal *The Population of Ireland*, however, depicting it as a system prone to inefficiency not through the external pressures of landlordism, but through its own cultural logic: '...it was otherwise with the partnership system: yield was kept down, but by the peasant's veneration for tradition, not by the landlord's profit seeking' (1950a, p. 76).

¹¹ In his appraisal of Connell's work, L. A. Clarkson (1981) concluded that Connell's upward revisions of post-1750 growth rates were in fact too low, and that population increase was likely to have been much higher.

¹² According to Bongaarts, such a theoretical upper rate of natural fertility is constrained by demographic factors such as cultural variation in marriage practices and delayed cohabitation (resulting in a loss of 25% of reproductive years), and biological factors such as secondary sterility and postpartum amenorrhea, which prolong birth intervals. Given that nutrition and breastfeeding are acknowledged as key determinants of the length of postpartum infertility (themselves partly accountable for in terms of social and cultural context), Bongaarts (1975) claims that a combination of social and biological factors conspires to place women in pregnancy for approximately one-sixth of their reproductive lives.

Furthermore, Connell's brief overview emphasises its liability not to maximise returns on labour through cooperation, but to induce conflict: '...fights trespass, confusion, disputes and assaults were the natural and unavoidable consequences of this system...and caused great loss of time and expense...of course, continued disunion amongst neighbours, was perpetuated' (ibid, p. 78)¹³. However, Connell does not connect his suggested mechanism of early conjugal union to the spatial tendencies inherent in rundale as others such as Whelan were later to imply. Given the prevalence of rundale throughout many western counties, and the concentration of population growth in such regions (outlined by Connell himself), it is difficult to maintain such a separation, as the rundale system was ideally suited to the sort of labour-intensive tillage and reclamation work, and subdivision, identified as key components in his demographic model¹⁴.

The danger of over-emphasising Malthusian population dynamics is that of ignoring historical context. Others have augmented this approach by examining how the rent relation operated under differing conditions of access to the means of production, thereby giving rise to different forms of productive activity and reproduction. In terms of variability in household organisation and family structure, Kevin O'Neill noted in his analysis of 1821 census data for the parish of Killashandra Co. Cavan, that many peasants were living under conditions which restricted the formation of independent family units, suggesting deficiencies in the ability of demographic models alone to account for differences in regional context (1984, p. 126). With regard to rundale, Dodgshon (2012) takes particular issue with a population explanation, suggesting that there are many observable instances where population growth remained high, but without producing extensive openfield farming. His approach focuses on contextual circumstances which may have 'caged' decisions on resource exploitation strategies, such as feudal lordship, and the letting of land in defined quantities, which engendered subsequent subdivision.

Despite some shortcomings, Connell's account remains an influential, albeit highly general model of demographic and geographical change. Clearly, there is some validity to Malthusian heuristics, but only insofar as they are placed in their political and economic contexts. Demography played a significant role in shaping the morphologies of population-dense regions under landlordism, which in turn wrought profound consequences for local ecology and biodiversity. The characterisation of Connell's approach here also ignores his employment of a range of historical sources beyond those of the statistical, and this depiction of his epistemology further belies his insistence on qualitative corroboration of issues such as the extent of pre-famine birth control, and illegitimacy. His generalisations as to the specific mechanisms of demographic variation do, however, constitute

¹³ This is substantiated by the work of McCabe (1991) who attests to the extent of conflict experienced under rundale.

¹⁴ As a case in point, the townland of Upper Beltany, Co. Donegal, as reported by McCourt, devolved over two generations from a single farm of 205 statute acres to 29 holdings scattered in 422 separate lots (1955b, p. 48).

a potential logical pitfall toward which accounts of rundale may tend, were they content to view such a system as merely a consequence, or facilitator of demographic expansion. In this sense, observed trends in fertility alone stand to reveal little about the internal logic, or dynamism of the system as a whole.

Toward an ideal-typical model of rundale

As the foregoing discussion has suggested, physical identification and reliance on single factors and levels of analysis only takes us so far. In order to understand more clearly the ecological dynamics of the Irish rundale as an integrated whole, an alternative approach to conceptualisation must be sought which takes account of the many dimensions touched on in the preceding ‘conceptual genealogy’. Arguably, a common thread connecting the preceding sections is that of an absence of a means for holistic representation. Within the social sciences, elaborations of structural systems models, such as those associated with classical systems theory, have largely fallen out of favour due to their tendency to lapse into mere description and static representation. Such models offer little sense of the centrality of movement, tension, contradiction and internal relatedness between components which, as this article has suggested, are elements central to understanding Irish settlement. At this point, therefore, it is worth imposing order upon the various systemic dimensions encountered, drawing on recent developments in resilience ecology.

Resilience ecology has enjoyed substantial growth in recent years, drawing contributions from a range of authors emphasising the multi-dimensionality of complex systems, including their spatial morphologies, socio-economic profiles, social institutions, and cultural practices (Abel *et al.*, 2006; Adger, 2000; Cumming *et al.*, 2005; Cumming and Collier, 2005; Cumming, 2011; Fabricius and Cundill, 2011; Fraser, 2003; Holling, 2001; Janssen *et al.*, 2007; Kinzig *et al.*, 2006; Matthews and Sydneysmith, 2011; Ostrom, 2009; Walker *et al.*, 2006). Resilience ecology draws on the concepts of ‘identity’ and ‘regime’ as a means of categorising and describing complex social-ecological systems, and of mapping their potential evolution over time. A *regime* is described by Cumming as a ‘... locally stable or self-reinforcing set of conditions...the dominant set of drivers and feedbacks that lead to system behaviour’ (Cumming, 2011, p. 14). By this approach, a specific system may be conceptualised as a particular arrangement of actors, components and their interactions, constituting a particular system identity (*ibid.*). Thus we may state that a social-ecological system of particular *identity* occupies a specific *regime* insofar as fluctuations in the conditions or variables constituting its identity do not result in significant changes or critical losses. In the terminology of resilience and complexity, such a change as results in a loss of *system identity* constitutes a *regime shift*.

Clearly, this operates at a high level of abstraction, and although somewhat dense, the purpose of this alternative approach is, in the first instance, to provide a comprehensive working vocabulary. In doing so, it offers a means for abstraction by describing a ‘menu’ of elements, capturing the range of system variations found

empirically. In practice, specific rundale settlements may assume any combination of these components. Because of this, achieving some balance between abstraction and empiricism is crucial; many documentary sources have been mined in the search for a complete picture of the Irish rundale, yet this source-driven approach to understanding is arguably approaching its limit. Conceptualising the various elements of rundale in this manner permits us to engage in deeper comparative work, by allowing us to search for differences between documented cases on the basis of a general working vocabulary, and to examine similarities and differences amongst cases drawn from beyond Ireland. Possible comparative cases include the communal villages of Romania, which operated under a similar legal precedent to that noted in the Irish law tracts (Coghlan, 1933; Stahl, 1980), the Russian Mir system (Shanin, 1983; Worobec, 1985), and the German Mark (Engels, 1882). Indeed, so preoccupied were early evolutionary anthropologists with the question of evolving social structures, it is tempting to think of communal settlements as an epigenetic phenomenon – if not in a global, then certainly pan-European context. Marx alluded to as much in his writings on historical communalism, suggesting that such systems formed a series of ‘social groups’ marking ‘successive phases of evolution’ (Marx, 1983, [1881]: 118). If such metanarratives have outlived their analytical usefulness, it is at least possible to appreciate their ambitious temporal and geographic scope.

As regards implementing the resilience approach, Cumming *et al.*, (2005) note two aspects of identity that are particularly useful for this exercise: ‘... the components that make up the system’ and ‘the ability of both components and relationships to maintain themselves continuously through space and time’ (Cumming *et al.*, 2005, p. 976). This logic was central to the later work of Elinor Ostrom, who also dedicated much effort to establishing comprehensive vocabularies of working concepts, as a means of enabling comparison amongst diverse cases of common pool resource governance. More specifically, her approach sought to identify institutional settings shaped by certain conditions and rules governing possible actions, and her notes on the use of frameworks are particularly instructive: ‘A framework is intended to contain the most general set of variables that an institutional analyst may want to use to examine a diversity of institutional settings... It provides a metatheoretical language to enable scholars to discuss any particular theory or to compare theories’ (Ostrom, 2010, cited in Wall, 2014, pp 59-60).

Such an identity framework specific to rundale is offered below in Table 2. This table serves as an inventory of the essential components which bound the system together, and contributed to its characteristic ecology. As such, it demarcates the rundale system as a cohesive entity without resorting to conditions of space or morphology alone – although key spatial elements feature prominently. **System Identity Feature** refers to specific institutions, social or physical structures which characterise the rundale system. **Identity Condition** is the specific form these features take in rundale, or wider communal-based agrarian systems, whilst **Identity Loss Condition** is the form these features take in systems that do not

conform to the conditions of rundale, for example, post-redistribution or post-clearance individualised systems.

As a contribution to comparative practice in historical geography, it edges us closer to Dodgshon’s notion of ‘caging’ as a means of making sense of the logic of the commons. Methodologically, this central organising concept of ‘caging’ addresses issues of cross-case complexity and comparison, by focusing on surrounding circumstances, which may have led to the decision to farm in common or in partnership. According to Dodgshon (2012), the pitting of stakeholder interests is central to this ‘decision’, and he suggests that the scattering of good quality patches of land amongst those of lesser quality in newly-settled marginal areas, may have served such a function. This view fits with broader notions of the commons as a means of equalising risk amongst common-pool resource stakeholders operating in marginal conditions. As a result, a number of the conditions tabulated below are likely to have had such a caging effect, by limiting the productive returns possible on an individual basis, as well as introducing a trade-off in the form of diminished risk exposure, which was achieved by hedging resources on a collective basis.

System Identity Feature	Identity Condition	Identity Loss Condition
Tenure	Joint or partnership	Individual
Property transmission	Partible inheritance	Primogeniture
Basic settlement morphology	Nucleated	Dispersed
Biodiversity	Med-High	Low
Local governance	Governance by communal council / headman	Solitary decision making
Legal reckoning	Customary law, usufruct entitlement	Civil / common law, private property
Field system	Openfield (infield-outfield) system with communal share allocation	Enclosed fields, stable boundary demarcation
Peripheral industries	Subsidiary spinning, weaving, or distilling	Commoditised wage labour, individual capital accumulation
Resource access	Collective management of common-pool resources (turf, seaweed, woodland)	Enclosed and charged (turbary and shore rights, copassing fines)
Mode of husbandry/ tillage	Spade and raised bed	Drill and plough post-consolidation
Cropping / tillage	Production for subsistence and internal consumption	Production for market sale

Social stratification and division of labour	Simple, homogeneous	Complex, class gradient
Spatial layout of individual shares	Fragmented in pockets of varying quality	Consolidated within 'ladder' layout
Population flow	Limited / seasonal migration	Permanent migration
Capital investment	Inhibited due to lack of secure tenure and usufruct	Investment and adoption of technology (drainage works, ploughs)
Settlement density	High density, capacity to expand through reclamation	Low density, capacity to expand restricted through enclosure
Village structure	Absence of services (public house or church)	Growth of township to include services
Internal division of productive activity	Simple – balance of subsistence and cash crop	Complex – encroachment of subsidiary industry and individual capital accumulation
Grazing allocation mechanisms	Soum/collop/cartron	Formal calculation of entitlements with fixed measurement
General topographical location	Upland / marginal land	Disappearance of upland settlement
Demography	High fertility, high subdivision	Restricted subdivision, high migration, impartible inheritance
Kinship	Close bonds, common descent	Dispersed bonds, inter-settlement mobility
Transhumance	Seasonal movement	Enclosure / individual herding
Style of building	'Lower class' building (census criteria), byre dwelling	Sturdier constructions

Rundale on Gola and Clare Island

It is worth examining how this model might be implemented with regard to specific locations. In practice, it is difficult to locate accounts which offer sufficient data on each dimension within a single location; nonetheless, a number of documented cases offer some detail, such as Clare Island (Mac Cárthaigh and Whelan, 1999), and Gola Island (Aalen and Brody, 1969). This model need not be restricted to individual settlements, and profiles of regions might also be assembled on the basis of their internal consistency, such as the Mullet Peninsula as discussed by Yager (2002), the South Kilkenny villages documented by Burtchaell (1988), or the clacháns of the Glens of Antrim (Bell, 2008; Bell and Watson, 2008). An attempt to derive regional groupings of varying ecological risk exposure has already been attempted at a higher level of aggregation, incorporating a regional measure of the extent of rundale (Flaherty, 2014). Alternatively, other groups of cases such as coastal or island communities (i.e., Rhaitlin, Gola, Clare, or the Aran Islands) often show remarkably similar identities, such as their mixed economies of fishing

and agriculture, close bonds of kinship, and the survival of local kingships and collective governance institutions. Whilst this exercise is restricted to island communities, which in turn may present questions of generalisability, the basic institutions which form the basis of the comparison are arguably indicative of wider ‘mainland’ communities. A comparative summary of Gola and Clare Island on selected dimensions is provided below in Table 3.

Table 3. Structure of Gola and Clare Island		
Component of rundale identity	Gola	Clare Island
Tenure	Joint or partnership Partnership leases	Joint or partnership Bulk rents
Basic settlement morphology	Dispersed Village peripheral to infield	Nucleated Townland-centred clachán
Kinship	Close bonds, common descent / inter-settlement mobility Intermarriage with seasonal herders	Close bonds, common descent Internal subdivision through partible inheritance
Village structure	Absence of services Limited services apart from national school	Growth of township Absent services in many townlands, national school and chapel in Kill
Peripheral industries	Subsidiary industry / individual accumulation Profitable seasonal fishing led to conspicuous consumption	Subsidiary industry Local cottage industries (knitting, weaving, poitín)
Local governance	Solitary decision making Joint farming, little evidence of kingship survival	Governance by communal council / headman Survival of kingship into twentieth century
Settlement biodiversity	Med-High Responsive, diverse local economy	Low Reduction in biodiversity as cash crop (grain) requirements rose
Style of building	‘Lower class’ / sturdier constructions Improved buildings under George Hill’s influence	‘Lower class’ High density low quality housing until late nineteenth century

Drawing on the work of Aalen and Brody (1969), we observe that the settlers of Gola Island faced precarious agricultural conditions in thin coastal soils prone to excessive leaching. Periodic fishing and cottage industries provided alternative income streams, whilst peat deposits on the northern peninsula, and access to seaweed for fertiliser and kelping along the shore, ensured a measure of fuel security and adequate stocks of fertiliser. Supplies of fertiliser were doubtless enhanced by the inhabitants' byre dwellings in which livestock were housed alongside families providing heat, and aiding the collection of animal dung. These methods of fertiliser collection were essential in the context of intensive ridge and spade husbandry, which required selective applications of fertiliser where tubers were to be planted. The orientation of houses with the byre-end toward the slope is typical of other such dwellings, and the placement of villages in such a manner provided both protection from the elements, and a drainage channel for liquid waste. Labour-intensive cultivation and reclamation works were conducted without ploughs, and the outfield shows signs of periodic enclosure and cultivation characteristic of the 'waxing and waning' of tillage remarked upon by McCourt (1955a).

Griffith's valuation reveals more of local kinship and holding patterns on Gola in the mid-nineteenth century. As per Griffith's standard notation, 29 occupiers are listed as renting the townland from Lord George Hill, which is divided into 4 larger blocs. Within these blocs, individual lots are held in common amongst occupiers, with 13 stakeholders listed in bloc 3 alone, and many occupiers sharing common surnames (i.e., Gallagher, Devir, and Freyle). Its lack of significant archaeology suggests settlement no earlier than the seventeenth – eighteenth century, whilst 6-inch OS maps show a pattern of settlement peripheral to the infield, remarked upon by Aalen and Brody (1969) as common in many western townlands (p. 40). By contrast, other similar settlements such as the clachán of Dooagh (Achill Island) retained a classic nucleated pattern of settlement, with infield and outfield radiating concentrically from the centre of the village to the surrounding uplands. Gola's principal village also indicates a lack of services prior to the interventions of Lord George Hill.

The work of Mac Cárthaigh and Whelan (1999) details a number of features of pre-famine ecology and social structure on rundale-dense Clare Island. Its settlement pattern conforms to the more typical nucleated village structures of high-density and close proximity, with clusters centred on individual townlands. This pattern is mirrored in other West Mayo locations, such as the clacháns of Termon and Aghleam on the Mullet peninsula, and valuation documents show evidence of widespread partnership holding amongst kin groups in the townlands of Lecarrow (Moran, Winter), Glen (Madden, Malley), and Kill (Malley, Moran). Extensive use was made of mountain commonage, shore, and turbary, and incomes were augmented through cottage industries such as knitting and spinning, calf rearing, kelp collection, and seasonal fishing on fickle herring and cod stocks. Subdivision was rife amongst inhabitants, assisted in the early nineteenth century by the Napoleonic wars and a buoyant grain economy, under which it was tolerated

as tillage continued to rise in profitability. Settlement easily expanded owing to use of intensive spade cultivation, and widespread consumption of potatoes which facilitated a mixed tillage of corn and root crops (visible traces of lazy beds remain throughout the Island today).

The above comparison shows a number of differences between recorded identity components, such as the comparatively dispersed morphology of Gola, its dual kinship influence of in-marriage from seasonal herders, and its comparably high biodiversity. Under common pressures in the pre-famine years such as compounding rents, falling grain prices, and enclosures of commons, settlements such as Clare Island suffered reductions in settlement biodiversity with the consignment of oats to market, their elimination from diets, and an over-reliance on the potato for subsistence (Mac Cárthaigh and Whelan, 1999, p. 81). On Clare Island, seasonal migration is variously cited as an essential source of subsidiary income, and although seasonal migrations to Scotland and Derry were noted on Gola, in combination with individual accumulation from fisheries, it appears a class gradient was introduced which destabilised established principles of egalitarianism. Nonetheless, a contradictory equilibrium obtained which sustained its population at remarkably high levels into the post famine year, during which the countrywide norm was sustained population decline.

Although both locations were subject to common stressors such as population growth, and later the arrival of blight, there was clearly a measure of underlying structural variance, which calls into question the manner in which ecological stressors may have been channelled through institutions such as migration, subsidiary industry, settlement expansion capacity, and access to transfer relief. Throughout the nineteenth century, as pressures to enclose came to bear, many agents replaced customary rights of resource access with turbary charges, and shore levies. In many areas, this had the dual effect of depriving cash-poor inhabitants of fertiliser supplies, of introducing conflict between agent and tenant, and among tenants themselves. As such, the integrity of local governance institutions may have proven as crucial to ecological resilience as biodiversity. For example, variations in recourse to customary law for dispute resolution amongst certain rundale tenants has been noted by McCabe (1991), as has the gradual decline of 'change-dale' or share reallocation from the eighteenth to early nineteenth centuries. Equally, the piecemeal process of enclosure ensured that no single mechanism acted in a uniform manner across Ireland to undermine the conditions of the reproduction of rundale. Upon assuming title to the Copeland estate of Co. Donegal in 1844, Rev. Nixon promptly annexed extensive tracts of mountain land in order to graze a prolific breed of sheep, disrupting long-held grazing rights of the tenantry who were accustomed to booleying their livestock on the mountain commonage, as an essential component of their seasonal rotation (Mac Aoidh, 1990, p. 45). Similarly, in response to favourable market pricing in the post-famine years, Lord Leitrim retained for his personal use 1,130 acres of mountain commonage for sheep grazing, subsequently raising rents on his tenants' arable plots (Mac Cnámhsí, 1970, p. 188).

A more pressing question than comparison between cases, therefore, concerns the patterns and interactions over time which may have pushed individual systems into crossing into an identity-loss threshold; this mode of comparison is arguably more data-restrictive, although a number of general mechanisms may be suggested (see for example, Whelan's model in Aalen, Whelan and Stout, 1997, which depicts a process of internal expansion in the pre-famine years, followed by contraction and redistribution). Table 3 above provides merely for a comparison between cases, and the generation of a basic structural typology; in order to push this model into a longitudinal analysis, the real task is to examine the transition of the various aspects of system identity into the 'identity loss threshold stage'. Questions could be asked concerning the manner in which enclosure may have undermined communal governance institutions, how the fixing of individual tenure may have aided individual petty capital accumulation, how class gradients may have become entrenched as settlements became more market-oriented, or how limited biodiversity and high settlement density may have aided the spread of disease within settlements.

The question of identity loss is therefore multicausal, and likely to occur in a variety of ways depending on each system's structural makeup. This line of research is beyond the limited scope of this piece, but should involve examining the trajectories of locations or regions over time, in order to examine changes within certain institutional domains as detailed in the above tables. For the cases which we have highlighted above at least, their kinship patterns, population mobilities, tillage strategies, and resource access channels contributed to their ecological makeup in different ways; this recognition of intuitional diversity and robustness is a hallmark of the resilience approach, and, hopefully, this 'vocabulary' has offered a preliminary working template for beginning such a task.

Conclusion

The study of rundale continues to attract attention, and if recent contributions serve as an indication, the controversies of the Queen's school are far from resolved (Dodgshon, 2012; Gardiner, 2011; Whelan, 2012). Archaeology offers a particularly promising avenue in this respect, as researchers continue to document evidence of transhumance-related booley sites, an extensive study of which has recently been undertaken under the Donegal Heritage Plan (Kerrigan, 2012) and the 'Field Names of County Louth' project (Campbell, 2014). If the controversy over rundale's antiquity and development throughout the centuries is not to be resolved through the archive, it is quite possible that field evidence may increasingly fill outstanding knowledge gaps. Indeed, future advances in establishing the chronology of rundale may depend on a combination of physical and documentary evidence, as mandated by Orser's (2006) 'historical archaeology' approach.

This article has also argued that there is something to be gained by casting a critical glance over what has gone before; to assess the modes of reasoning employed by more prolific rundale scholars, to examine the ways in which debate has been framed, and to consider some common mechanisms invoked

when accounting for the course of rundale throughout history. This analysis has shown that interpretations of rundale have rested on a number of epistemological assumptions governing 'what counts' as admissible evidence, allied to particular methods of data collection and interpretive frames. Furthermore, these approaches lean to greater or lesser extents on a number of analytical levels, from morphology, to geography, to individual mentality, and it is worth cautioning against over-determination.

Latterly, this piece has argued that there is much to be gained by taking these cautions one step further, and attempting to derive an alternative conceptual map of rundale in all its structural and intuitional complexity. According to existing theory in resilience-based human ecology as discussed above, the various attributes of identity function to augment resilience by governing key system dynamics (Walker, *et al.*, 2006). Under the Irish rundale system the institutions of usufruct entitlement, collective governance, holding fragmentation and seasonal migration of livestock permitted combined tillage and pasturing in the absence of sufficient space or labour on the part of any one inhabitant. Consequently, emphasis in the identity approach is less on assessing change and potential stressors in terms of quantitative movement alone, but rather in terms of *qualitative* change in the makeup of the system. As such, systemic change or collapse may not be reckoned solely by thresholds of settlement size, yield, output, or the magnitude of peripheral commodity production, but by their channelling through the intuitional makeup of the system itself. This alternative approach to conceptualisation detailed above, moves beyond explanations of cohesion and change within rundale in terms of a single prime mover. Whilst this approach may also appear 'essentialising' in its method, its merit rests in its ability to distil complex information from multiple cases, without relying on specific aspects of the system as singularly defining features.

Neither should the seemingly idealistic notion of a link between past communalism and our modern cultural heritage be entirely discarded, as the institutions of rundale continued to exert their influence long into the twentieth century. On Rhaitlin Island, for example, rundale remained the dominant mode of land organisation well into the twentieth century (Forsythe, 2007, p. 228), and questions abounded within Dáil Éireann (1947) in the 1940s concerning the need to impose regulatory guidelines upon common grazing lands in the West of Ireland, which still employed children as seasonal herders. The model presented in this paper offers a modest template with which to begin this reconstruction of Irish communalism, as well as a number of caveats against potential logical pitfalls. By further integrating existing documentary, cartographic, field, and statistical sources, and by populating this ideal-type with empirical casework, a fuller perspective on the complexities of rundale throughout the centuries should hopefully be forthcoming.

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