

# Writing the “New Geography”: Cartographic Discourse and Colonial Governmentality in William Petty’s *The Political Anatomy of Ireland* (1672)

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**ABSTRACT:** Within the context of historical geography, William Petty (1623-87) is almost exclusively known for his mapmaking activities as the Director of the Down Survey (1654-6) and is less well known for his theories on political economy, populations and productivity. While Petty’s achievements have been historically examined within various disciplinary contexts, this interdisciplinary paper seeks to link two key elements of his career (mapmaking and political writings) and argues that his experiences in Ireland largely shaped the trajectory of what he later termed as “political arithmetic.” In offering a re-appraisal of William Petty’s “cartographic discourse” in *The Political Anatomy of Ireland* (1672), this paper links the mapping of the forfeited lands of Catholic Ireland, the development of a nascent form of colonial geopolitics and governmentality, the gendering of a political anatomy, to the emergence of “political arithmetic” as a new instrument of state. The paper is primarily concerned with cartographic discourse of the “new geography” of late seventeenth-century Ireland, and explores the implications of re-reading Petty’s political writings on Ireland. It extends observations by Patricia Coughlan (1990), Hugh Goodacre (2008, 2009), and Ted McCormick (2010) in terms of highlighting the colonial context of Petty’s work, and views Petty’s *Political Anatomy* as a nascent form of colonial governmentality specifically concerned with securing and regulating the Irish “colony” through the management of the mobility and conduct of its population. In opening up the connections between Petty’s scientific training in continental Europe, his mapping experiences in Ireland, and his development of “political arithmetic,” this paper offers an alternative genealogy of the history of political economy that is disruptive in highlighting its colonialist “origins” by re-evaluating Petty’s cartographic discourse on Ireland.

## Mapping Ireland, reading Petty

Within the context of historical geography, William Petty (1623-87) is almost exclusively known for his mapmaking activities as the Director of the Down Survey and is less well known for his theories on populations and productivity. As economic historian Cormac Ó Gráda observes, Petty “is best remembered by Irish economic historians for his estimates of population and income and by geographers for his maps and surveys. In both fields he was a pioneer, and his work forms the starting-point for all subsequent inquiries.”<sup>1</sup> In stressing the historical connections between geography and economics, Hugh Goodacre argues that there is an additional challenge to the reading of Petty’s work as being a precursor of modern spatial economic analysis, in that the focus has been predominantly on English-language accounts of the European history of political economy. In what he calls “The William Petty Problem” (translating the nineteenth-century German debate of “Das Adam Smith Problem”), Goodacre argues that

French economic historians have not only included, but foregrounded, Petty's contribution to the evolution of the sub-discipline of political economy, but that their work has been to a large degree under-read or neglected by historians whose work is anglophone-centred.<sup>2</sup>

While Petty's achievements have been examined within various disciplinary contexts, this paper seeks to link two key elements of his career and argues that his experiences in Ireland largely shaped the trajectory of what he later termed in his writings as "political arithmetic." While the *exclusive* nature of this relationship (the influence that the natural sciences and contemporary philosophical thought had on the development of Petty's ideas must also be acknowledged) is not being posited here, what is argued however is that the arc of development of Petty's "political arithmetic" has to be read within the context of early modern colonial Ireland. The importance of Baconian induction, Hobbesian social theory, and the "new science" of mechanistic philosophy that Petty adapted and applied to his theories concerning Ireland has been well noted and documented by scholars such as Mary Poovey, Hugh Goodacre, and most recently by Ted McCormick in his *William Petty and the Ambitions of Political Arithmetic*, which is "simultaneously an intellectual biography of Petty [...] and a critique of the new science of 'political arithmetic'."<sup>3</sup>

The Down Survey (1654-6) was a monumental task in military organization and land surveying; a cartographic leviathan that stretched across the landscape of Ireland and would not be surpassed, in geographic, legal or cultural terms, until the achievements of the Ordnance Survey were published almost two centuries later. The Survey entailed the division of the country into new, legal administrative boundaries, and as William J. Smyth has argued, simultaneously demanded the re-formation of the Gaelic Irish land divisions and ownership of over half of the country. This effective "desocialization of Gaelic Irish space," which commenced in earnest with the Tudor re-conquest of Ireland in the middle decades of the 1500s, also worked to consolidate the gains made after the Ulster Plantation in 1609 and the Cromwellian wars later in that century.<sup>4</sup> It is argued here that William Petty, through his cartographic work and political narratives, was a key architect in the building and shaping of the colonial geopolitics of seventeenth-century Ireland. This article focuses less on the cartographic history of the maps of the Down Survey than on the *cartographic discourse* of the survey and the implications for Petty's political writings on Ireland. In addition, to open up the connections between Petty's scientific training in continental Europe, his mapping experiences in Ireland, and his development of "political arithmetic" is to consider an alternative genealogy of political economy that is disruptive in highlighting its colonialist "origins." Such a genealogical re-routing implies a distinct shift from the received Enlightenment narrative of political economy through the figure of Adam Smith, and grounds one rhizomatic root of that family tree firmly in the soil of early modern colonial Ireland.<sup>5</sup>

Reading and interpreting Petty's work as a whole therefore demands cross-disciplinary research, a multilingual toolkit and much archival patience. A concern with the historiography and critical analysis of this period is also observed by Patricia Coughlan. Coughlan maintains that "there has not yet been any significant attempt to investigate the various writings of the period in themselves as symbolic representations (as distinct from seeing them as relatively inert and transparently readable pieces of evidence for the views or political positions of various factions)."<sup>6</sup> Any contemporary critical analysis must be mindful of the epistemological challenges and theoretical fault-lines that such an approach demands. As McCormick writes:

Economists can study Petty's economics, Irish historians his role in Ireland, and historians of science his contributions to the Royal Society; but connecting these things and assessing their relationships requires mastering literatures that have developed along separate lines, printed sources that come pre-packaged for subdisciplinary use, and manuscript sources that have, until recently, been hard to consult at all. Bringing in the still wider range of interests that Petty's manuscripts reveal is no easy task.<sup>7</sup>

While McCormack focuses mainly on the scientific origins and political writings of Petty, and does not foreground the cartographic impulse and origins of his writings *per se*, I would like to foreground both the cartographic imaginary operating in the writings on political arithmetic with an emphasis on Petty's deployment of language. Petty's writings and cartographic work attempted an all-encompassing *cartographic discourse* on Ireland, a discourse that is deeply embedded within the typologies of English writing on Ireland from the renaissance to early modern periods. I would also like to extend the observations and the much-welcomed colonial contextualisation of Petty's work made by Goodacre, and to view Petty's work as a nascent form not just of governmentality (control over populations) but of a *colonial governmentality* specifically concerned with securing and regulating a colony through the mobility and conduct of its population.

The links then between the mapping of Catholic Ireland, the development of a nascent form of colonial geopolitics and governmentality, the gendering of a political anatomy, and finally the emergence of "political arithmetic" as a new instrument of state (for use crucially both at home and abroad), are brought into sharp relief and explored here through Petty's cartographic discourse in his *The Political Anatomy of Ireland* (1672). As Goodacre argues,

Petty's survey of Ireland must surely be recognised as a pivotal episode in the history of the relationship between economic and geographical thought, an episode which, furthermore, places in the highest possible relief the inextricable connection of his spatial-economic analysis with the context in which he forged it, a context of bureaucratic-military officialdom and predatory colonialism.<sup>8</sup>

### **Soldiers, surveyors, speculators: William Petty and the Down Survey (1654-6)**

Petty was born on 26 May 1623, the son of a Hampshire trader. His rise to later success and peerage was a mark both of his own character and of the age in which he lived. From inauspicious beginnings, Petty rose to become the physician-general to Oliver Cromwell's army, a celebrity physician, an advocate of a state-funded medical system and a national identity card, the inventor of the catamaran, and a founding member of the Royal Society, to name but a few of his achievements.<sup>9</sup> In 1637, he went to sea as a cabin-boy and after ten months and injured with a broken leg, he was put ashore in France where he was educated by the Jesuits at Caen. In demonstrating his future entrepreneurial spirit, he paid for his education by selling beeswax and hair hats, and by playing cards. Interestingly, considering the religious politics of the period, it was to this Catholic education that he owed his knowledge of Latin, Greek, French and mathematics. Without the fundamental building blocks of his Jesuit education, it could be argued, Petty's rise would not have been so swift, nor so spectacular.

In the 1640s, Petty resumed his studies in Paris where he became acquainted with figures associated with the famous Mersenne Circle which included luminaries such as Descartes, Fermat, Pascal and Gassendi. In 1645 he was reading Vesalius with Thomas Hobbes, and working on the drawings for Hobbes's *Optics*, which demonstrated his acquaintance and knowledge of the work of what would become known as the "new science." Indeed, in his portrait in his Doctor of Medicine gown by the artist Issac Fuller, he is shown with a skull in one hand and Vesalius' book on anatomy laid open for inspection beside him.<sup>10</sup> Knowledge was thus something to be demonstrated both in theory and in practice, to be revealed in print, and illustrated on the page or canvas for public inspection, consumption and circulation. Petty was introduced to the chemist and physicist Robert Boyle in 1646 through his friend Samuel Hartlib, a German refugee who advocated the application of science to social and economic needs and whose methodologies may later have influenced Petty.<sup>11</sup> During this period, Petty travelled and studied medicine in Utrecht, Leyden, Amsterdam and Paris, and his French and Dutch experiences would particularly

reverberate later throughout his work in physical anatomy and his theories of political arithmetic. In 1650 he was appointed Professor of Anatomy at Oxford, and also Professor of Music at Gresham College, London, later becoming Physician General to Cromwell's army in Ireland in 1652. The purpose of anatomy was, he wrote, primarily to show the mechanistic nature of the "enginry" of "man."<sup>12</sup>

Petty, as McCormick wryly states, "had a very high opinion on his own abilities, an opinion widely but not universally shared."<sup>13</sup> While Petty, in a letter to his friend Sir Roger Southwell in 1681, may have bemoaned the fact that his audience "are as deaf as haddocks," the history of his life and writings is also a history of early modern science and print culture, and more importantly in Petty's case, the history of manuscript circulation and networks of learned societies. The lamentation regarding the "deaf ears" of his audience was undoubtedly related to the fact that for much of his life Petty was embroiled in personal debates and legal disputes regarding the legitimacy of his Irish estates acquired after he completed the Survey. In addition, his ideas concerning political arithmetic were arguably too large-ranging and overly ambitious for the short-term political life of Restoration England.

The Down Survey was to be the means by which Petty made his fortune, but in this he was not without his detractors. In 1652, Petty's income totalled £800 per year, with a private fortune estimated at £480. By the time he had completed the survey a decade later, Emil Strauss estimates that Petty had cash resources amounting to £13,060, and was drawing a rental income of £4,200 a year from his Irish lands.<sup>14</sup> Clearly, Petty's mapmaking exploits in Ireland and subsequent purchase of land formed the basis for his later financial success. This did not go unnoticed by his contemporaries, nor by his critics who were deeply suspicious of the ways in which Petty obtained vast amounts of profitable Irish land. The survey became known as the Down Survey as the surveyors were instructed to ascertain the boundaries of any "parcell of forfeited lands" so that, "the same may be drawne and sett downe by you in a touch plott [map]."<sup>15</sup> It was therefore a survey that was to be "sett downe" visually on maps and textually in terriers, and was not to be simply a list of tabulated information as was the case in previous surveys.<sup>16</sup> The name "Down Survey" was applied to the maps by the Lord Lieutenant and the Privy Council in 1658, and has been officially retained ever since.<sup>17</sup> Over one thousand people were employed in a process that took just over thirteen months to survey all the land held by Catholic proprietors at the outbreak of the rebellion in 1641; this covering about 47.5 percent of the land of the country (later estimated to be nearly 8,400,000 acres).<sup>18</sup> With the deployment of soldiers in measuring boundary lines, the Survey was run along efficient military lines.<sup>19</sup> As highlighted by William J. Smyth, the process of "conquest, confiscation and colonization" was paved by soldiers, surveyors and speculators alike.<sup>20</sup>

### **"A commin Knife and a Clout:" Dissecting Ireland's *Political Anatomy***

Three years after completing the maps for the Down Survey, Petty wrote of how religious reform in Ireland could be made possible with the advent of "the new Geography". In the preface to *A Treatise of Taxes & Contributions* [...] *The same being frequently applied to the present State and Affairs of Ireland* (1662), Petty wrote:

The parishes of *Ireland* do much want Regulation, by uniting and dividing them; so as to make them fit Enclosures wherein to plant the Gospel; wherefore what I have said as to the danger of supernumerary Ministers, may also be seasonable there, when *the new Geography* we expect of that Island shall have afforded means for the Regulation abovementioned. [Italics in original.]<sup>21</sup>

The Good Word could thus be planted within the “Enclosures” of the parish, but this was dependent upon the “new Geography,” which provided the space in which this new ecclesiastical history could be written. This was written in a rhetorical mode of an imagined geography, when the new geography “we expect of that Island *shall* have afforded” (my emphasis) would allow for such “regulation” in the future. Petty would later ignore the idea of resistance to such culturally transformative policies a decade later in his *The Political Anatomy of Ireland* with its recommendations for the forcible transplanting of people from one country to another in order to develop the economic growth of England and Ireland and which also, by extension, crucially provided a ready stream of labor for the colonies overseas. Significantly, he placed the use of the map as the second most important item to consider and utilize when enquiring into the conditions of a country, thus acknowledging the instrumental use of cartography as necessary tool of government, a convention that had been established in Ireland in the previous century, in particular through the work of Lord Burghley, William Cecil.<sup>22</sup>

The dramatic changes to the Irish political and human landscape after decades of wars, famine and the forced displacement of the native populations were noted and referenced in the *Political Anatomy*. Here, the large-scale change in native settlement was placed in direct relation to the “destruction of people:”

Now if it could be known what number of people were in Ireland, *Ann.* 1641, then the difference between said number, and 850 [M.], adding unto it the encrease by Generation, in 11 years will shew the destruction of the people made by the Wars, *viz.*, by the Sword, Plague, and Famine occasioned thereby [...] It follows also, that about 504 M. of the Irish perished, and were wasted by the Sword, Plague, Famine, Hardship and Banishment, between the 23 October 1641 and the same day 1652.<sup>23</sup>

The rhetoric of the laying waste of Irish land with the, “destruction of the people [...] by the Sword, Plague and Famine,” strongly recalled Edmund Spenser’s infamous account of the Desmond Wars in Munster in the Elizabethan period as does his deep suspicion of language and its use.<sup>24</sup> While lands such as these were interpreted as being laid “waste”, it is no surprise then that the idea of Ireland as *tabula rasa*, as white paper or blank space, occurred in English writings on Ireland in this period. Petty referred to Ireland in the 1660s as a legal and cartographic blank space. In 1662, he argued that “when *Ireland* is as a white paper,”<sup>25</sup> then, the Duke of Ormond will “pass into Positive Laws whatsoever is right reason and the Law of Nature,” (giving another resonance to the term *carte blanche*).<sup>26</sup> However much Petty could project into the future the notion of an Ireland emptied of its Gaelic Irish populations and of its social and cultural systems of land, law and religious practices, the “when” of this speculative statement was a problem that would remain largely unresolved. The issue was not that Ireland would be entirely “emptied of the majority of its inhabitants as Petty had advocated,”<sup>27</sup> but the recognition that while there may be a new geography there was still a very old history, with the additional question of labor being required to work the land to extract resources from it. The real problem, as T.C. Barnard points out, was that “Ireland was not a *tabula rasa*. There were old institutions; there was a native population, both Protestant and Catholic, whose support was necessary to any regime’s permanence.”<sup>28</sup> While the Down Survey made a claim to a certain kind of geographical “realism”, the political and cultural assumptions that were obscured in the maps were foregrounded in corresponding cartographic narratives (map terriers, official documents, and administrative letters).<sup>29</sup>

The proposed land confiscations and transplantations were however, as Smyth argues, not as successful as initially planned. While the “clearing” of the confiscated lands in the creation of this new geography may have been a rhetorical flourish, the more practical question remained

as to who would actually work the eleven million acres that were to be assiduously cleared? Assessments for the need of labor and, in particular cheap and readily available labor, meant that as the 1650s progressed "more realistic adjustments were made as to who would be obliged to transplant and who might be permitted to remain."<sup>30</sup> And so, "requests to retain Irish tenants, artisans and labourers flooded into the Dublin administration from the representatives of the 'reserved' counties."<sup>31</sup> Smyth states that only one in eight landowners in Munster ended up in Connacht and that "a great many old Irish families held their ground, survived, and adapted to the new landlord regimes."<sup>32</sup> In examining the 1659 Census, he contends that "it would appear that close on 60 per cent of the adventurer grantees had not settled in their allocated baronies by 1660. Only about one-fifth had actually settled," and also significantly that some of the old Catholic families had "slipped back home from 'exile' in Connacht as well."<sup>33</sup>

While the maps of the *Hiberniae delineatio* were being engraved, Petty was writing his treatise *Political Arithmetic* (1671, published posthumously in 1690), and *The Political Anatomy of Ireland, with the Establishment for that Kingdom and Verbum Sapienti* (1672, published posthumously in 1691).<sup>34</sup> In the preface to the *Political Arithmetic*, Petty outlined the details of his particular approach to interpreting the "perplexed and intricate Ways of the World:"

The Method I take to do this, is not yet very usual; for instead of using only comparative and superlative Words, and intellectual Arguments, I have taken the Course (as a Specimen of the Political Arithmetick I have long aimed at) to express myself in Terms of *Number, Weight, or Measure*; to use only Arguments of Sense, and to confide only such Causes, as have visible Foundations in Nature; leaving those that depend upon the mutable Minds, Opinions, Appetites, and Passions of particular Men, to the Considerations of others [...].<sup>35</sup>

The "number, weight and measure" of the *Political Arithmetic* in 1671 was to be drawn up a year later in line with the idea of the "symmetry, fabric and proportion" of the state as described in the *Political Anatomy*. This book was an examination of the political, religious, economic and social structures of a particular country as case-study, with Ireland being chosen as the site for this experimental investigation.<sup>36</sup> Here the rhetoric of the dissection of the colonial body politic performed a clear framing device for the treatise. One may well ask the question why did Petty focus on the "new geography" of a colony, and not write a political anatomy of the English state? The Preface answered this in part. He explained to the reader that: "*I have chosen Ireland as such a Political Animal, who is scarce Twenty years old; where the Intrigue of State is not very complicate and with which I have been conversant from an Embricon.*"<sup>37</sup> The glossing over of the decades of "Sword, Plague and Famine" that Petty had previously referred to, marked his determination to read Ireland as a "white paper" which is scarce twenty years old, and thus was conveniently absolved of bearing the weight of any determinable history, "complicate" or otherwise.<sup>38</sup>

Petty drew attention to the influence of Bacon, his training in the medical sciences, and introduced the idea of reading and writing about the body politic of Ireland in terms of an anatomical body, an experiment waiting to be dissected with the instrument of political anatomy:

*Sir Francis Bacon, in his Advancement of Learning, hath made a judicious Parallel in many particulars, between the Body Natural, and Body Politick, and between the Arts of preserving both in Health and Strength: And it is as reasonable, that as Anatomy is the best foundation of one, so also of the other; and that to practice upon the Politick, without knowing the Symmetry, Fabrick, and Proportion of it, is as casual as the practice of Old-women and Empyricks. [Italics in original.]*<sup>39</sup>

The argument made here is that the use of a general principle in one area should then also be equally applicable to another, with the "Body Natural" being translated into the "Body

Politick." Moreover, the "practice upon the Politick" was seen as based on the "casual", as opposed to expert, knowledge of "Old-women and Empyricks", and as running the risk of ignorance and of damaging the health of that very body under investigation.<sup>40</sup> In the next paragraph, he stressed his political neutrality in positing such matters: "I therefore, who profess no Politicks, have, for my curiosity, at large attempted the first Essay of Political Anatomy."<sup>41</sup>

Petty's "curiosity" was thus maintained from the outset as a professional, scientific curiosity, based on his objective experiences in Ireland. He drew an analogy between the "cheap and common Animals" that students of anatomy practice upon, and Ireland as "such a Political Animal," thus reinforcing the shameful status of the body to be openly displayed in such investigations. In a move that echoed Irenius' privileging discourse of experience in Spenser's *A View of the Present State of Ireland* (1590), it is Petty's own experience of that country with which he is "conversant," that ironically provided him with the necessary "evidence" and authority for such an investigation. The narrative "I" of the discourse collapsed the boundary between "objective" vision and the narrative voice, to the point where the subjective narrative provided an authenticated experience that added the aura of truth and knowledge to the pronouncements that follow. The value of experience over that of received knowledge gained precedence in this new world of the "new science" and the Royal Society. In bemoaning the fact that there was a lack of "proper Instruments," he settled for the blunt instrument of a "commin Knife and a Clout" (which was understood as being "political arithmetick"), and which was evident throughout the work in the dissection of the socio- and geo-political body of Ireland:

*Tis true, that curious Dissections cannot be made without variety of proper Instruments; whereas I have had only a commin Knife and a Clout, instead of the many more helps which such a Work requires: However, my rude approaches being enough to find whereabouts the Liver and Spleen, and Lungs lye, tho' not to discern the Lymphatick Vessels, the Plexus, Choroidus, the Volvuli of vessels within the Testicles; yet not knowing, that even what I have here readily done, was much considered, or indeed thought useful by others, I have ventur'd to begin a new Work, which, when Corrected and Enlarged by better Hands and Helps, I believe will tend to the Peace and Plenty of my Country; besides which, I have no other end. [Italics in original.]<sup>42</sup>*

Petty was self-consciously aware that there was a lack of a sophisticated language (only the use of the "common" instruments of the barber/surgeon were available to him) but he was firm in the belief that here was the beginning of a new discourse in which to describe the world, the instrumental method being political arithmetic and the object of scrutiny being Ireland.

Petty's *Political Anatomy* dealt with topics such as land ownership, trade, religion and language. The first chapter, "Of the Lands of Ireland," gave an account of the amount of land in Ireland and its value, noting for his English audience that, "whereof 121 Acres makes 196 English measure."<sup>43</sup> As land values were outlined, the transportation of the Irish to Spain and Barbados was mentioned which set up the next stage of the argument—the value of the inhabitants of Ireland. The Irish were valued in relation to "Slaves and Negroes" who are "usually rated [...] one with another," so that the "value of the people will be about 10,355,000 l."<sup>44</sup> This concern (that of the value of a people) was central to Petty's concept of political arithmetic, and would later be discussed in more detail in his last work *A Treatise of Ireland*. Petty argued that given the present conditions in Ireland, "the Irish will not easily rebel again."<sup>45</sup> This was set against the somewhat genocidal intent of some "furious Spirits" who "have wished, that the Irish would rebel again, that they might be put to the sword."<sup>46</sup>

Petty continued by commenting on the advantage of the "declining of all Military means of settling [sic] and securing *Ireland* in peace and plenty, what we offer shall tend to the transmuting

of one People into the other, and the thorough union of Interests upon natural and lasting Principles."<sup>47</sup> This marked a distinct and significant shift in the proposed treatment and control of Ireland, from the outright domination of military conquest to the control of the population through hegemonic means by securing consent and acquiescence. The "transmuting of one People into the other" had one central motivation behind it, the maximization of labor in order to benefit the state. This "transmutation" was not to come about solely through a process of acculturation or assimilation, but was to be primarily effected through enforced mobility and transmigration, through the physical dislocation and displacement of large bodies of the population across the two islands of the archipelago, which would additionally serve to consolidate "Union" between the two nations. The physical translation of bodies across the Irish Sea would then ensure the cultural translation and political assimilation of such populations. This would come about, suggested Petty, by exchanging two hundred thousand Irish people with their British counterparts.

It is important to note that there is a particular *gendering* to this "transmutation" that demands further critical scrutiny. Of the six hundred thousand people in Ireland that Petty described as living "in the wretched way above mentioned," he estimated that there were:

[N]ot above 20 M. of unmarried marriageable Women [...]. Whereof if  $\frac{1}{2}$  the said Women were in one year, and  $\frac{1}{2}$  the next transported into England and disposed of one to each Parish, and as many English brought back and married to the Irish, as would improve their Dwelling but to an House and Garden of 3 l. value, the whole Work of Natural Transmutation and Union would in 4 or 5 years be accomplished. The charge of making the exchange would not be 20,000 l. per Ann. which is about 6 Weeks Pay of the present or late Armies in Ireland.<sup>48</sup>

Petty never envisaged any objection, or resistance, to such plans of exchange and forcible transplantation from either the Irish or, for that matter, the English who were to be equally subjected to displacement. The forced exchange would be a highly gendered one, with single women playing a vital role in integrating and creating the next generation of labor to produce, reproduce and circulate; a mobile, transnational labor force was now figured as being the life-blood of the "nation." The plan was seen primarily as securing the political health of Ireland, and therefore of England, in terms of a mutually beneficial relationship. In offering a kind of cost-benefit analysis in terms of overall advantages, the proposal was presented as being a more peaceful (and thus economical) way of gaining much-needed stability in Ireland as opposed to the instability wrought by costly wars of previous decades, in costing only "about 6 Weeks Pay of the present or late Armies in Ireland."

The final and total translation of the Irish people would come about, Petty argued, with the sustained use of the English language in that primary nucleus of the body politic, the family. In a statement that again recalled Spenser and other renaissance writers on Ireland, he wrote: "[W]hen the Language of the Children shall be English, and the whole Oeconomy of the Family English, viz. Diet, Apperel, &c. the Transmutation will be very easy and quick."<sup>49</sup> That the etymological origins of "Oeconomy" were derived from *oikos* (house) and *nomia* (from *nemein*, to manage) would not have been lost on Petty in his consideration of the domestic element of the economy in relation to the "Family." The economic translation of the people seems then to be linked if not contingent to the "transmutation," or forking, of the native and mother tongue.

The spatial context of an Atlantic Ireland was never far from Petty's mind. His repeated emphasis on Ireland's geographical location between England and the colonies of the New World showed his concern for an efficient mode of operating trade both domestically and between

the colonies. The “fitness of Ireland for Trade” lay in that, “Ireland lieth Commodiously for the Trade of the new American world; which we see everyday to Grow and Flourish. It lyeth well for sending Butter, Cheese, Beef, Fish, to their proper Markets, which are to the Southward, and the Plantations of America.”<sup>50</sup> The colonial analogy is further explicitly stated when Petty called for an increasing of trade between Ireland and England, and compared Ireland to the West Indies: “[W]e should do to Trade between the Two Kingdoms, as the Spaniards in the West-Indies do to all other Nations.”<sup>51</sup> Bowls of oatmeal became negotiated in terms of bowls of rice. Foodstuffs were one of the main elements of trade between the colonies, and so one could be traded against the other, “[b]ut if Rice be brought out of India into Ireland, or Oatmeal carried from Ireland thither; then in India the pint of Oatmeal must be dearer than half a pint of Rice, by the freight and hazard of Carriage.”<sup>52</sup>

### Colonial governmentality

Michel Foucault’s broad argument for tracing a genealogy of governmentality to the eighteenth century may have merit in the context of the European metropole, but in the context of a colonial geography I would argue that forms of governmentality as outlined by Foucault can be traced much earlier to the work of Petty and his experiences in seventeenth-century Ireland.<sup>53</sup> While recent discussions of Foucault’s writings on governmentality have focused on reiterating his genealogy of statecraft to designate this shift that commences in the eighteenth century, an alternative narrative is posited here, in being one that incorporates the site of the colonial (*within* European space) which may also take into account the notable absence of “territory” in Foucault’s now famous “Governmentality” lecture. With regard to the question of “what happens to territory?” as noted by Stuart Elden,<sup>54</sup> it seems that from the eighteenth century onwards territory is now *assumed* to be the stage upon which history acts, and state concern is now focused on “controlling the mass of the population on its territory rather than controlling territoriality as such.”<sup>55</sup> By this time, it is argued, population, its quantification and its control, is now the main focus once treaties had been signed, borders consolidated, and states mapped. Following this line of argument, European territory after Westphalia no longer had to be “taken,” but could instead now be *taken for granted*.

If Foucault’s argument of governmentality has at its core three main points of discussion—these being the transition from feudal sovereignty to that of governmentality, the concerns of territory becoming that of population, and the control and retention of land transferring to control of social bodies inhabiting such lived geographies—then the work of Petty on Ireland would seem to fit all three criteria, but in an earlier context of seventeenth-century colonial Ireland. Historically, the shift from sovereign to governmental power can explicitly be traced to the English Interregnum, the power of parliament in the context of the Commonwealth of England, Scotland and Ireland in the period after the Civil War and the execution of Charles I, under the protectorate of Cromwell’s New Model Army (1653-9), with the restoration of the monarchy coming with Charles II in 1660. The shift from a concern of territory to that of population may be seen throughout the political writings of Petty, where territory was treated as given or “taken for granted” (lands confiscated, resources mapped), but now however it was the category of “population” (particularly the remaining Catholic Gaelic Irish population) which was the problem. And finally, the shift from the control of land to the control of bodily movement and social behavior—seen in Petty’s writings on the “transmutation” of the Irish, on planting the Protestant faith upon the *tabula rasa* of the “new geography” of plantation Ireland, and in terms of the proposed changes of “language, religion and manners”—completed the circle of colonial biopower and governmentality with regard to the mobility and conduct of the population.

One could argue that the absence of "other" spaces in Foucault's analysis was a logical outcome of his lack of any sustained critical analysis of the role of the colonies in the construction of the European metropolitan core. As geographers, historians and critical theorists have noted, Foucault's work demands to be continually contextualized but the generality that is implied in his work on governmentality seems to be a generality that takes the European imperial center as the norm, with the colonial periphery (with a particular omission of the francophone spaces of *les départements* and *les territoires d'outre-mer*) rarely getting a look in.<sup>56</sup> As Elden notes, "Foucault says little, for instance, about the numerous governmental practices of colonial empires but there are some interesting remarks on the discovery of America [...] and on the constitution of colonial empires."<sup>57</sup> In his 1967 lecture "Des Espaces Autres" ("Of Other Spaces"), Foucault asks the question: "I wonder if certain colonies have not functioned somewhat in this manner. In certain cases, they have played, on the level of the general organization of terrestrial space, the role of heterotopias."<sup>58</sup> The question of the role and function of such heterotopias *vis-à-vis* the colonies is one which begs the question of whether they can be seen as "counter-sites" or "spaces of illusion," in which real sites "are simultaneously represented, contested and inverted."<sup>59</sup> Where then are the sustained critical discussions of, rather than passing references to, Madagascar, Algeria, and Indochina in the Foucauldian analysis? Would the colonial inflection radically change the ways in which governmentality is exported and developed overseas? Gyan Prakash has argued that "[c]olonial governmentality could not be the tropicalization of its Western form, but rather was its fundamental dislocation," and that colonial governmentality in colonial India is radically discontinuous with the Western "norm."<sup>60</sup> Does governmentality of the colonial core "travel" unevenly to the peripheries? If so, we need to rethink governmentality then by (re) contextualizing it, and by extension we also need to rethink it in terms of the specificities of colonial history in addition to concerns of contemporary neo-colonial world systems.

In Foucault's analysis, the "final elimination of the model of the family and the recentring of the notion of economy" is rendered through the perspective of population.<sup>61</sup> The "problem of population" through rates of births, deaths and diseases is shown to have its own rationale, a rationale that cannot be reduced to the dimension of the family. The family now therefore declines as a model of state and "population" is now regarded as "a fundamental instrument to its government", and this can also be seen in Petty's writings.<sup>62</sup> Population would now be the category of social organization, the object of analysis, and as such, the "ultimate end of government."<sup>63</sup> Petty's later work very much focused on this control and movement of domestic and colonial populations as the "ultimate end of government." As Simon Shapin and Steven Schaffer argue, "questions of epistemology are also questions of social order."<sup>64</sup> This is of absolute importance when considering the exportation of metropolitan epistemes to the colonies from the early modern period onwards as evidenced in the "new geography" and cartographic discourse of William Petty. In transforming both domestic and colonial subjects into mobile, mercantile commodities that bore a new relationship to land, labor and politics, Petty was providing the grist of "number, weight and measure" for the statistical mill of political arithmetic that had been codified with a "knife and clout" in his *Political Anatomy of Ireland*.

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## NOTES

- 1 Cormac Ó Gráda, *Ireland: A New Economic History, 1780-1939* (Oxford UK: Clarendon Press, 1994), 24.
- 2 Hugh Goodacre, "The William Petty Problem and the Whig History of Economics," *Cambridge Journal of Economics* (in press).
- 3 Nessa Cronin, "Review of Ted McCormick, 'William Petty and the Ambitions of Political Arithmetic,'" *Journal of Historical Geography* 38 (2012): 344-45, 344. See also Mary Poovey, "The Political Anatomy of the Economy: English Science and Irish Land," *A History of the Modern Fact: Problems of Knowledge in the Sciences of Wealth and Society* (Chicago IL: University of Chicago Press, 1998), 92-143. I am grateful to Kevin Whelan for this reference. Ted McCormick, *William Petty and the Ambitions of Political Arithmetic* (Oxford: Oxford University Press, 2010).
- 4 Cronin, *The Eye of History: Spatiality and Colonial Cartography in Ireland* (unpublished PhD Thesis, NUI Galway, 2007). See especially Chapter Two, "Desocialising Native Space: Plots, 'Plats' and Policy in Early Modern Ireland," 52-115.
- 5 On the re-alignment of the "origins" of political economy, see Goodacre, "Review article: From Petty to Ricardo up to Sraffa," *Economic Issues* 13 (2008): 106-8.
- 6 Patricia Coughlan, "'Cheap and Common Animals': The English Anatomy of Ireland in the Seventeenth Century" in Thomas Healy and Jonathan Sawday, eds., *Literature and the English Civil War* (Cambridge UK: Cambridge University Press, 1990), 205-23, 206.
- 7 McCormick, *William Petty*, 4.
- 8 Goodacre, "Economics, Geography and Colonialism in the Writings of William Petty," in Richard Arena, Sheila Dow, and Mattias Klaes, eds., *Open Economics: Economics in Relation to Other Disciplines* (London UK: Routledge, 2009), 233-46, 244.
- 9 My biographical information on Petty is from Emil Strauss, *Sir William Petty: Portrait of a Genius* (Glencoe IL: The Free Press, 1954). Petty named his catamaran aptly enough, "The Experiment" and gave equal emphasis to the originality of his double-bottomed boat called "The Invention."
- 10 Wilson Lloyd Bevan, *Sir William Petty: A Study in English Economic Literature* (Baltimore MD: Guggenheimer, Weil & Co., 1894), 7; [www.socserv2.socsci.mcmaster.ca/~econ/ugcm/3113/petty/bevan.html](http://www.socserv2.socsci.mcmaster.ca/~econ/ugcm/3113/petty/bevan.html).
- 11 I owe this note on Samuel Hartlib to, S.J. Connolly ed., *The Oxford Companion to Irish History* (Oxford: Oxford University Press, 2004 [1998]), 464.
- 12 The full reference reads as follows: "[...] to show proud man that his most mysterious and complicated enginry is nothing to the compounded and decompounded mysteries in the fabric of man. That all their ... mechanics whatsoever, are no more compared to the fabric of an animal than putting two sticks across is to a loom, a clock, or a ship under sail." Petty as cited in, Strauss, *Sir William Petty*, 34.
- 13 McCormick, *William Petty*, 260.
- 14 Strauss, *Sir William Petty*, 70.
- 15 "Instructions to be observed by Mr. Thomas Jackson, appointed Surveyor for the Barronies of Clanwilliam, [...] in his Surveying and Admeasuring the said Baronies, and in making his Returne of the same," 12 June 1654, as cited in, William Petty, *A History of the Survey of Ireland Commonly Called The Down Survey*, ed. Thomas Aiskew Larcom (New York: Augustus M. Kelley Publishers, 1967 [1851]), 388.

- 16 Thomas Larcom correctly argues that the Strafford Survey could also have held this nomination, but the name is maintained for Petty's survey of 1654-9: "Editor's Preface," in *A History of the Survey of Ireland*, viii.
- 17 W. H., "On Manuscript Mapped and other Townland Surveys in Ireland of a Public Character, embracing the Gross, Civil, and Down Surveys," *Transactions of the Royal Irish Academy* 24, Antiquities (1873): 3-115, 21.
- 18 Y.M., Goblet, ed., *A Topographical Index of the Parishes and Townlands of Ireland in Sir William Petty's MSS Barony Maps (c. 1655-9) (Bibliothèque Nationale de Paris, Fonds Anglais, Nos 1 & 2) and Hiberniae Delineatio (c. 1672) (Dublin: Comisiún Láimhscribhinní na hÉireann, 1932)*, vi. See also, John H. Andrews, *Plantation Acres: An Historical Study of the Irish Land Surveyor* (Belfast: Ulster Historical Foundation, 1985).
- 19 Jacinta Prunty makes this point in, *Maps and Map-making in Local History* (Dublin: Four Courts Press, 2004), 51.
- 20 William J. Smyth, *Map-Making, Landscapes and Memory: A Geography of Colonial and Early Modern Ireland c. 1530-1750* (Cork: Cork University Press, 2006), 153.
- 21 Petty, "A Treatise of Taxes and Contributions" in, *The Economic Writings of Sir William Petty, together with the Observations Upon the Bills of Mortality, more probably by Captain John Graunt, 2 Volumes*, ed. Charles Henry Hull (Cambridge UK: Cambridge University Press 1899), 5-6, my emphasis added in last line only.
- 22 Petty, "The Method of Enquiring into the State of any Country," in ed. Marquis of Lansdowne [H.W.E. Petty-Fitzmaurice], ed., *The Petty Papers: Some Unpublished Writings of Sir William Petty from the Bowood Papers, 2 Volumes, Vol. I* (London UK: Constable, 1927), 175. On the life and work of William Cecil, see Christopher Maginn, *William Cecil, Ireland, and the Tudor State* (Oxford UK: Oxford University Press, 2012).
- 23 Petty, *The Political Anatomy of Ireland, with the Establishment for that Kingdom and Verbum Sapienti* (Shannon: Irish University Press, 1970 [1691]), 17, 18. Petty makes reference here to the transportation of the Irish to Spain and "Barbadoes," and he also writes that, "[t]he Irish transported into Foreign parts, between 1651 and 1654, were 34,000 Men," *Political Anatomy*, 20, 7.
- 24 This point has already been made in Cronin, "Review of *William Petty*," 344-45.
- 25 The blank spaces as purporting to represent "empty" space, in order to encourage habitation and cultivation, and profit.
- 26 The full quotation is, "[I]astly, this great Person [Ormond] takes the great Settlement in hand, when *Ireland* is as a white paper, and capable of his Counsel, under a King curious as well as careful of Reformation; and when there is opportunity, to pass into Positive Laws whatsoever is right reason and the Law of Nature", Petty, "A Treatise of Taxes and Contributions," 9.
- 27 Goodacre, "Economics, Geography and Colonialism," 245.
- 28 T. C. Barnard, *Cromwellian Ireland: English Government and Reform in Ireland 1649-1660* (Oxford UK: Oxford University Press, 1975), 14-5.
- 29 The need to re-establish the links and connections between maps, texts and manuscripts is noted by John H. Andrews when he urges the researcher to reunite what the librarian has divided. John H. Andrews, "Maps, Prints and Drawings," in William Nolan and Angret Simms, eds., *Irish Towns, A Guide to Sources*, (Dublin: Geography Publications, 1998), 27-40. See also Keith Lilley and Catherine Porter, "Mapping worlds? Excavating Cartographic Encounters in Plantation Ireland through GIS," *Historical Geography* 41 (2013) 35-58. I am grateful to Professor Gerry Kearns for the latter reference.

- 30 Smyth, *Map-making, Landscapes and Memory*, 182.
- 31 Smyth, *Map-making, Landscapes and Memory*, 182.
- 32 Smyth, *Map-making, Landscapes and Memory*, 182-3. Smyth also makes the important point that landowners were transplanted often within their own county and/or province, *Map-making, Landscapes and Memory*, 184.
- 33 Smyth, *Map-making, Landscapes and Memory*, 195, 197.
- 34 The *Hibernia delineatio* was an atlas of the Irish counties, based on Petty's work on the Down Survey and influenced by the format, success and use of Christopher Saxton's celebrated county maps of England and Wales, and a map of England and Wales as a whole (1579). The margins of Saxton's maps in Lord Burghley's "atlas" in the British Library contain notes in Burghley's hand, as Burghley clearly saw the value of cartographic knowledge and was an avid map user, patron and collector.
- 35 Petty, "Political Arithmetick," in *Several Essays in Political Arithmetick with Memoirs of the Author's Life* (London: Routledge/Thoemmes Press, 1992), 98. See also the copy of Sir William Petty's "Essay in Political Arithmetick concerning Ireland," National Library of Ireland, Larcom Papers, MS 7795.
- 36 Postcolonial scholars of Irish history have often cited nineteenth-century Ireland as the period in which Ireland as a colonial laboratory is best exemplified; however, a precursor for this can be seen in this instance here. See also, Frances Harris, "Ireland as a Laboratory: The Archive of Sir William Petty," in Michael Hunter, ed., *Archives of the Scientific Revolution: The Formation and Exchange of Ideas in Seventeenth-Century Europe*, (Woodbridge UK: The Boydell Press, 1998), 73-90.
- 37 Petty, *Political Anatomy*, Author's Preface, n.p. Italics are original.
- 38 The narrative of colonial land as "empty," a void *terra nullius* awaiting inscription while also being a virgin *terra incognita* awaiting expansion, allowed for a re-inscription of that land, naming it into existence. This is evident in the various colonial histories and toponymies associated with Ireland, North America and Australia in the British context, and the gendering of such discourse has been noted by feminist scholars.
- 39 Petty, *Political Anatomy*, Author's Preface, n.p.
- 40 Original italics have been removed from quoted text. The advances in the different systems of knowledge led to the training of people within such systems which gave rise, as Mary Poovey argues, to a new social position that of the expert. Poovey, *A History of the Modern Fact*, 15.
- 41 Petty, *Political Anatomy*, Author's Preface, n.p.
- 42 Petty, *Political Anatomy*, Author's Preface, n.p.
- 43 Petty, *Political Anatomy*, 1.
- 44 Petty, *Political Anatomy*, 21.
- 45 Petty, *Political Anatomy*, 26.
- 46 Petty, *Political Anatomy*, 26.
- 47 Petty, *Political Anatomy*, 29. Italics in original.
- 48 Petty, *Political Anatomy*, 30.
- 49 Petty, *Political Anatomy*, 31.
- 50 Petty, *Political Anatomy*, 78-9.
- 51 Petty, *Political Anatomy*, 33.
- 52 Petty, *Political Anatomy*, 65.
- 53 Foucault states that political economy arises "out of the perception of new networks of continuous and multiple relations between population, territory, and wealth [...]. In other words, the transition which takes place in the eighteenth century from an art of government

- to a political science, from a regime dominated by structures of sovereignty to one ruled by techniques of government, turns on the theme of population and hence also on the birth of political economy." Michel Foucault, "Governmentality," in Graham Burchell, Colin Gordon, and Peter Miller, eds., *The Foucault Effect: Studies in Governmentality* (Hemel Hempstead UK: Harvester Wheatsheaf, 1991), 87-104, 101. On Foucault and the Irish context see also John Morrissey, "Foucault and the Colonial Subject: Emergent Forms of Colonial Governmentality in Early Modern Ireland," in Patrick Duffy and William Nolan, eds., *At the Anvil: Essays in Honour of William J. Smyth* (Dublin: Geography Publications, 2012), 135-150.
- 54 As noted by Stuart Elden, "Governmentality, Calculation, Territory," *Environment and Planning D: Society and Space* 25 (2007): 562-580, 563.
- 55 Bob Jessop, "From Micro-Powers to Governmentality: Foucault's Work on Statehood, State Formation, Statecraft and State Power," *Political Geography* 26 (2006): 34-40, 38.
- 56 Elden, "Governmentality," 567. See also, the question of French intellectual engagement with decolonisation from the 1950s as noted by Robert Young in *Postcolonialism: An Historical Introduction* (Oxford UK: Blackwell Publishers, 2001), 397.
- 57 Elden, "Governmentality," 576.
- 58 Foucault, "Of Other Spaces," *Diacritics*, 16 (1986) [1967]: 22-7, 27.
- 59 Foucault, "Of Other Spaces," 24.
- 60 Gyan Prakash, *Another Reason: Science and the Imagination of Modern India* (Princeton NJ: Princeton University Press, 1999), 125-6.
- 61 Foucault, "Governmentality," 99.
- 62 Foucault, "Governmentality," 99.
- 63 Foucault, "Governmentality," 100
- 64 Simon Shapin and Steven Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton NJ: Princeton University Press, 1985), 342.