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Edward Lhuyd's "archaeologism" and "philologism" in the observation of the nature of the Celtic languages

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1. The perfect language of nature

From his very first years in Oxford, the Welshman Edward Lhuyd (Lloyd, Lhwyd, Llwyd, or latinized as Luidius and Lhuydius – cp. Gunther 1945) was closely connected with the scientific milieu involved in research in the organic sciences, particularly chemistry, mineralogy, geology, botany, zoology, malacology and fossils.

He approached this domain with a particular insight into the evolutionary side of the matters under investigation, matching them with the anthropological aspects that pertain to the natural continuous transformation processes. Genealogy and heraldry were part of this investigation as were the nominal classification that produces name-giving to things and the lore of the "original inhabitans". The procedure was a diachronic one, in which the tracking of available «collections» (= 'corpus') of data attained the depth of the layers of antiquity. The faint hint at an idea of prehistory, alluded to by the study of fossils, megaliths, cairns and tombstones, set in motion historical-palaeontological research, or a "natural history": Martin Lister's study of shells, the *Synopsis methodica conchyliorum*, London 1685-1693, is referred to as a *Historia*, and Lhuyd was one of its contributors.

Language was viewed as a multilayered geological product, as an archaeology of knowledge, as the history of mankind engendered by the stones of the earth it belonged to, over which the waves spread as if they were tectonic thrusts. The mechanistic paradigm was still a long way from the distinction-opposition between nature and culture it would acquire in the following two centuries (Auroux, 2007). Its

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taxonomy of the outer and inert forms of nature (Bacon's *natura naturata*) was only partially interrelated with vital historical change (*natura naturans*).

Within this outlook, Lhuyd operated following the methodological principles of the rational-empirical model set down by Francis Bacon and promoted in the Oxford circles by John Wilkins within the framework of a British Renaissance, which produced an impressive number of innovatory achievements on the topic of cognition (Salmon, 1996, pp. 3-29, 99-111). Accordingly, Lhuyd acted as an investigator well trained in the careful examination and reliable observation of data. Just as he had been instructed to isolate elements in a chemical compound, he became used to splitting up the structure of the world entrusted to his close attention into minimal segments in order to retrieve its primeval tabulation.

Lhuyd's first fieldwork was the investigation of "life" in the flora and fauna of the northern Welsh hill mass of Snowdon. He demonstrated the particular features of some of the samples he collected, and supplied a list of plants that was included by John Ray in his *Synopsis methodica stirpium Britannicarum*, London 1690, 1696[2]. Lhuyd's expertise coupled with his commitment to the project, and the field-research practices begun by Ray and his friend Francis Willoghby (Cram, 1990) earned him the praise of the former («Edwardus Lloyd Oxoniensis, non rei tantum herbariae, sed totius historiae naturalis peritissimus, qui multis et raris synopsin hac nostram speciebus auxit» – cp. the fifth page in the "Praefatio"), who then asked for his collaboration on the *Collection of English words not generally used*, London 1691. This was a pioneering dictionary of English dialect words in which were included words collected by Lhuyd.

Lhuyd was able to work with the vacillating attitude held by most of his contemporary naturalists towards the relation object-name in the observations of properties and nominal essence. The philosopical project they shared seems to have been animated by simple optimism, in the conviction that the nominalism of the taxonomic method was real. This was the position expressed by John Wilkins, whose outlook was still a long way from John Locke's epistemological doubts on certainty in knowledge (Slaughter, 1982, pp. 194-219).

But the latter's proposals were gaining ground, so that Ray admitted that species of classification departed from forms in nature, thus assuming a discrepancy that might allow for the imposition of general names (*nominum generalium impositio*), «necessary for the institution and widespread use of a common language» (*Synopsis*, 1696[2], p. 1).

What was not abandoned however was the idea of sketching a dictionary for surveying and granting an intellectual place to all knowable things. Language is in fact a natural phenomenon as is clearly outlined in Ray's *Synopsis*, in which the methodological pattern has a coterminous validity. Here the *stirpes*, which are the *plantae per generum characteristicis*, are equated to the superior taxon, and each specific branch belongs to a *species* subjected to a detailed description (*specierum descriptiunculae*), taking care to distinguish the species from those that are congenerous with them or express similar properties.

This did not mean Lhuyd had superseded his natural interests, with no other aim than the search for truth in natural history. Within the purview of the academies, the Oxford Philosophical Society was established in 1683 in order to give guidance to scholars devoting themselves to experimental learning. Lhuyd's name appears from its earliest minutes and in 1691 he succeeded Robert Plot in the post of the second permanent keeper – the *musei custos* – of the Ashmolean Museum (Macgregor, 2010), an institution founded with the primary purpose of revitalizing the study of the natural sciences (Ovenell, 1986).

As a result of the constant scientific association with some of the members of London Royal Society – viz. Elias Ashmole, Edward Brown, Martin Lister, William Molyneux, Isaac Newton, William Nicolson, Samuel Pepys, Robert Plot, John Ray, Hans Sloane –, he presented numerous contributions to the *Philosophical Transactions* published by this body, to which he was elected fellow in 1708.

At a time when the origin of fossils was highly controversial, Lhuyd tackled the presence in the earth of marine fossils devoting the *Lithophylacii Britannici ichnographia*, London 1699, to this specific topic. It is an illustrated catalogue of nearly two thousand British fossils published in a limited edition of 120 copies with the cost subscribed by Newton and a few other Royal Society fellows. Here, as a palaeontologist, he describes the cetiosaur tooth *Rutellum implicatum* (Delair, Sarjeant, 2002) in fig. 1352. His activities as a botanist leave a legacy in the annals of the *Gagea serotina*, a rare Snowdon lily («in excelsis rupibus montis Snowdon»), which was originally named *Llodya serotina* after him.

2. *Collection of data*

Lhuyd seemed absolutely convinced about including the anthropic domain in an experimental philosophy (*philosophia experimentalis*). In

this context, old languages become an instrumental part of the evidence to be used by the historian of nature. Lhuyd's essay aims at «tracing out by language the origin of nations, where history is comparatively, but late and invalid» (*AB*, p. 266). Therefore languages are the keys that open the way to the knowledge of antiquity, helping researchers use etymologies, names and lexical items to detect the migrations of peoples and isolate loanwords in order to find mutual contacts between settlers (Roberts, 1997, p. 761). The founder of the Celtic comparative grammar, Johann Kaspar Zeuss, was later to champion the view that the study of language is essential for historical research. This conviction had already taken shape, even before the *Grammatica Celtica*, Leipzig 1853, in his pioneering work *Die Deutschen und die Nachbarstämme*, Munich 1837 (Poppe, 1992).

This is a clear sign of the debate occurring among *virtuosi* and scientists. The *Universal philosophy* according to Wilkins lay in «a regular *enumeration* and *description* of all those things and notions, to which marks or names ought to be assigned according to their respective natures» (*An essay towards a real character, and a philosophical language*, London 1668, p. 1). At this stage, Ray and Francis Willughby (Knowlson, 1975, p. 78) were concerned in promoting «the primitive purity, and shortness, when men deliver'd so many *things*, almost in an equal number of *words*» (Thomas Sprat, *The History of the Royal Society of London*, London 1667, p. 113). They contributed by constructing the classification for the universal scheme proposed by Wilkins (Cram, 1990; Chiusaroli, 1998; Considine, 2008, pp. 293-313). However, following Newton's *Principia mathematica*, London 1687, Ray rejected the premise of the scheme as far as forms were concerned, supplanting it with a taxonomy that employed a mathematically endowed language.

Lhuyd proceeded to turn his analysis of features into a philological strategy: In each of the domains he was interested in, he behaved like a scientist (Roberts, 1980, p. 5), and a scientist who conformed fully with the tenets of the academic circles. The attitude towards the nature of the world was methodical observation with the purpose of ordering the manifold variety of things which were subjected to rapid transformation. When in 1693 Edmund Gibson planned an enlarged English edition of William Camden's *Britannia*, London 1695, he asked Lhuyd to revise and contribute the Welsh entries.

Lluyd made his contribution to the *Thesaurus linguarum veterum Septentrionalium*, 3 vols, Oxford 1703-05, by George Hickes. Furthermore, his list of Welsh place-names was included in William Baxter's *Glossarium antiquitatum Britannicarum*, London 1719 (posthumous). The «understanding of our ancient names of persons and places [...] a comparing of the proper names of persons and places» (first page in the "Preface") is to be ranked among the tasks of Lhuyd's project. Thus, Lhuyd was to become a collector of words that listed the world.

This may justly be considered the first new stance in the comprehensive study of the whole of the reality of nature. It was the beginning of a formulation of this reality also in terms of language, geography, antiquities and the history of Wales within the context of a net of relationships that made up a system which from 1698 onwards he began to label as "Celtic" (Gunther, 1945, p. 400).

His tour through Wales in 1693-94 spurred him on to extend his exploration to the neighbouring countries, which he expected would fit within the same scope. The work for Camden's *Britannia* was an apprenticeship that unveiled his firm involvement in the study of history.

In 1697, Lhuyd actually planned to organize his investigation and collection of evidence on the basis of a more extensive tour that would allow his «curiosities» to pry into every place and create favourable circumstances. In the company of three skilled assistants who were to help him in activities such as the surveying of monuments, transcribing or acquiring manuscripts, as well as observing botanical and geological specimens, he decided to deepen his knowledge of the Welsh territory. From here he planned to travel to Cornwall, the Scottish Highlands and across to Ireland, the Isle of Man and Brittany, viewing and exploring the sites of interest, in order to gather naturalistic and archaeological samples (Edwards, 2010), combined with the anthropological issues displayed by local dialects, native tradition, inscriptions and written texts.

Lhuyd's collection of manuscripts was very extensive; in 1786 the parchment texts were numbered at twenty, including the Book of Leinster and the Yellow Book of Lecan, besides twenty-six volumes on paper, among which were Lhuyd's notebooks or their commissioned transcripts. But unfortunately on his death they became dispersed because the University of Oxford did not accept the offer to purchase them. The Irish portion was then presented to Trinity College, Dublin; but most of them were sold to private buyers and at Sotheby's. Subsequently, many were destroyed by a fire at a bookbinder's workshop in London (O'Sullivan, O'Sullivan, 1962).

Native or quasi-native in Welsh, Lhuyd studied Irish, Breton and Cornish, a dying language; we owe to him the description of the

sounds he heard and the printing of Nicolas Boson's folktale *Jowan Chy-an-Horth py an try foynt a skyans* "John of Chyannor or the three maxims". He ventured to write prose and verse in all four languages (Roberts, 1997, p. 760).

A further important part of his investigative method was to distribute thousands of copies of a printed questionnaire of "parochial queries" shortly before setting out on his long journey. He established a network of correspondents to perform the task, addressing the local clergy, schoolmasters and the gentry of all parishes in Wales and Cornwall. Lhuyd was particularly thorough in eliciting details of antiquities and traditions, natural history and topography, as well as of contemporary life.

The linguistic sampling employed during his field-trips through Britain and Brittany followed a prompt-list compiled by Ray and Willughby for the *Dictionariolum trilingue, secundum locos communes*, London 1675. This is a Latin, Greek, English vocabulary organized following the seventeenth-century taxonomy (Slaughter, 1982, pp. 207-12). It has thirty-two headings classified in columns – of mammals, fish, herbs, etc. –, inspired by the *Janua linguarum* and the *Orbis pictus* of Iohannes Amos Comenius (Poli, 1998).

When Lhuyd finally returned to Oxford in 1701, he had come to the decision that he would devote the first of a multi-volume project to his linguistic studies, and a second to natural history. But his sudden death in 1709 at the age of forty-nine or fifty prevented him from carrying out this programme. The outcome then of his undertaking was a single volume, named *Glossography*, of an *Archæologia Britannica*, Oxford 1707, planned for «giving some account additional to what has been hitherto publish'd, of the languages, histories and customs of the original inhabitants of Great Britain» (cp. the title page). His note-books and correspondence testify to the wealth of material which would have been included in the second scheduled book (Gunther, 1945).

The "invention" – in the sense of a rhetorical-grammatical *inventio* – of the stage of an original matrix-language is made possible by "philologism" as "archaeologism" involved in the reconstruction of earlier steps through segments going back to the framework devised by the perfection of nature. As the metaphysical standpoint was gradually superceded, the variety of languages and within languages lost its negative connotation; language phaenomenology was considered as a corpus of empirical data that could be embedded in distinct classes, although the original model was not yet conceived as derived through a feasible process of reduction of multiplicity to unity (*reductio ad unum*).

At the time of Lhuyd, the primaeval stage, which was mechanically perceived in the organic evolution measurable on the scale of a relative chronology, was conceived simply as the *common origin* of the Celtic languages, Greek, Latin and, when needs must, a hazy involvement of Italic and Germanic languages (*AB*, p. 35). Lhuyd appears to point to this process with a formulaic *tracing (out)* – e.g.: The first page in the "Preface" (pp. 35, 266).

In the demonstration of the assumption, Irish comes nearer to Latin and Welsh to Greek (*AB*, pp. 266-69), and, following the statement of Gerardus Joannes Vossius' *Etymologicon linguae Latinae*, Amsterdam 1662, on a different level Aeolic Greek yields to Latin (*AB*, p. 315). The fact that Irish is the best preserved dialect of Celtic, particularly apt for illustrating the antiquities of all the Celtic nations, was the opinion of Leibniz, who grasped Lhuyd's point, when he wrote (Leibniz, 1717, pp. 153-4):

> Postremo ad perficiendam vel certe valde promovendam *literaturam Celticam*, diligentius *linguae Hibernicae* studium adiungendum censeo, ut Lloydius egregie facere coepit. Nam, uti alibi iam admonui, quemadmodum Angli fuere colonia Saxonum, et Britanni emissio veterum Celtarum, Gallorum, Cimbrorum; ita Hiberni sunt propago antiquiorum Britannicae habitatorum.

3. Evolutionary and comparative applications

Assuming the connection between the ideas in the mind and nature, any collection of items must yield to a systematic arrangement of specialized taxa that has to be expressed by an appropriate and isomorphic nomenclature, through which the mass of contents of the erudition can be classified. Since experimental sciences process their concrete data through comparison, a systemic access pairs with a conjectural one in producing plausible conclusions. Within the field of the theoretical approach to languages, the use of comparison in natural sciences was to develop into nineteenth-century Indo-European linguistics. Although Celtic studies seem to have resisted this methodology and presented problems in defining their scope (van Hal, 2005), Lhuyd's scientific discussion on the «changes of consonants» provides a solution to «the traceing out the origin of languages» (*AB*, p. 35).

As the titles of the sections show, the "comparative" application is acknowledged with regard to chapters one ("Comparative etymology", pp. 1-40), two ("Comparative vocabulary", pp. 41-179), eight ("A

British etymologicon", pp. 266-98, edited by Lhuyd's helper and underkeeper David Parry). Technical words and phrases related to the procedure of comparison can be summed up in the following items: *to compare, comparative, comparing, affinity, to agree with, agreeable, to collate with, to derive, deriveable, etymological observations, parallel observation relating to the origin of dialects, the origin of ours, affinity of the British with other languages, their correspondence to one another, original languages of Britain and Ireland, the changes or alteration into various dialects of the ancientest languages of Britain and Ireland, analogy they bear to those of our neighbouring nations, identity or analogy.*

On the other hand, terms related to the mechanism of language transformation are: *deviation, alteration, accidental difference, addition, permutatioin or change of letters, omission, alteration, variation.*

The «parallel observation» is a comparative phonological correspondence that encourages the imposition of constraints on the investigation and the definition of different sets of mutation. They may be looked at according to the following three principles (*AB*, pp. 34-5): The permutations that occur in the same class – "classical" within, e.g. labials, palatals, vowels –; the language specific, i.e. "idiomatal", permutations – e.g. the alternation between P-Celtic and Q-Celtic –; the change occurring at random – not conforming to any rule, but required by the semantics (Cram, 1999).

Lhuyd's understanding of the linguistic matter had its sources in the innovative reactions to the historical and linguistic relations suggested by Joseph Justus Scaliger's grouping of families – in *Diatriba de Europaeorum linguis*, written in 1599 and published in *Opuscula varia*, Paris 1610 –, followed by Hieronymus Megiser – *Thesaurus Polyglottus*, Frankfurt 1603 – and Stephan Skinner – *Etymologicon linguae Anglicanae*, London 1671. Lhuyd also reacted to a fanciful Phoenician origin suggested by Samuel Bochart – that was later accepted as valid in Charles Vallencey's *Grammar of Iberno-Celtic or Irish language*, Dublin 1773 –, or to the various attempts to overlap the supposition of a *primaeva lingua* with a multifaceted and vague "Scytho-Celtic" hypothesis (Metcalf, 1974).

The choice made by Lhuyd looked closely at the outlines given by the ingenious Scot George Buchanan – with his *Rerum Scoticarum historia*, Edinburgh 1582 –, the profound Anglo-Irish James Ware – cp. his *De Hibernia et antiquitatibus eius disquisitiones*, London 1654 –, the perspicacious Dutchman Marcus Zuerius Boxhorn – the author of *Originum Gallicarum liber*, Amsterdam 1654 –, the eccentric Irish John Toland – who seems to have instructed Lhuyd in the parallel between Welsh and Irish –, the bold Breton Paul-Yves Pezron (Leerssen, 1986, pp. 332-9). He took some suggestions from the *De linguarum origine praefatio* of the «learned» Georg Stiernhielm (Stockholm 1671 – cp. *AB*, p. 35).

The Renaissance background provided Lhuyd with grammatical and rhetorical tools already tried and adapted to the sophisticated needs of the universal theory. In Wilkins' *Essay*, orthography is the linguistic conceptual equivalent to his science of things since the letter characterizes the sound and the articulatory organs give a configuration to the match of sound and character (Isermann, 2007). For Lhuyd a proper and unalterable pronunciation ought to be assigned to each form of letter (first page of the Welsh introduction in *AB*). Lhuyd's insistence on writing Q-Celtic rather than Qu-Celtic and adopting the traditional Latin spelling for it – e.g. *qo* for *quo* – seems to be due to his decision to represent the single voiceless labialized velar plosives with one grapheme (Roberts, 1986, p. 3). So with the extension of the Latin letters and the use of diacritics, he devised a kind of phonetic script.

The necessity to retrieve the phonetic value beyond the peculiarity of each spelling through a transliteration in a neutral «general alphabet» was impelled by the requirement to grant every scholar the opportunity to distinguish the sounds. According to Lhuyd «in etymologies we regard the pronunciation, not the orthography» (Gunther, 1945, p. 514). The intent of this graphic strategy was to remove «false colours wherewith the different orthography of these languages have disguis'd their words» (in *AB*, p. 1), so that their common origin can hardly be discerned (for a similar sentence, cp. p. 267). For the technical terminology of Renaissance, the word 'general' is a synonym for 'universal': And if the alphabet is universal, it follows that it is real.

When languages are approached using the Baconian method, and therefore the chance due to similarities is surpassed, the taxonomy requires that individual features be ordered into a system based on the same internal characteristics. Each phono-graphic segment refers to a specific place in one of the columns of a virtual "philosophical table", so that a regularity between phono-graphic segments can be pursued in their serial changes, making up patterns of similar conditions that outline a well-grounded context for other equivalent alterations. The crucial proof is that the phonology of Welsh agrees to a great extent with that of Irish and the genius or nature of Irish conforms with Welsh in the phonotactic alternations of initial phonemes (cp. the third page of the Welsh introduction in *AB*).

The two branches of Celtic that have developed from a common ancestor in consequence of geographical and phonological criteria posit an equation between the entities of the P-Celtic, the Brithonic that originated in Gaul, and the Q-Celtic, the Goidelic that came from the Iberian Peninsula (*AB*, p. 35), where "Cantabrian" or Basque showed, according to Lhuyd, striking affinities with some portions of the Irish lexicon.

In this way Lhuyd gave rise to a misapprehension that was continued by Peter Simon Pallas, who in *Linguarum totius orbis vocabularia comparativa*, St. Petersburgh 1786-1789, maintained the link between Celtic and Euskara. The claim that Irish had a Spanish source goes back to Camden's *Britannia* («Scoti ex Hispania in Hiberniam quarta mundi aetate venerunt, pars eorum quae adhuc remansit eadem utitur lingua, et Navarri vocantur» – *Britannia* 1607, p. 88); but the simple historical information is corroborated by Lhuyd with linguistic support.

Lhuyd's work has nothing in common with the late sixteenth-century French gallophiles – like Jean Picard, Petrus Ramus, François Hotman – neither did it help inspire the politicised vision of the incoming Celticism (Löffler, 2004), when in the eighteenth-century the languages labelled as Celtic became the major tool for the construction of a new ideological category (Brown, 1996). Nor did it give any hint of the Celtomania which apparently seems to have triggered the reaction of Rask against the position of Celtic in the Indo-European family (Blom, 2009) – or to the localism that turned into patriotism in the forgeries of the Welsh Edward Williams, alias Iolo Morgannwg, and the Scot James Macpherson.

Lhuyd had confined himself to tracing the ancestry of the Celts from Biblical forebears while other scholars began expanding the evidence of linguistic relationships to look for further connections in order to substantiate a template for the peoples and cultures admitted under the definition of Celtic. Pezron *Antiquité de la nation et de la langue des Celtes, autrement appellez Gaulois*, Paris 1703, was immediatly traslated into English as *The antiquity of nations; more particularly of the Celtae or Gauls*, London 1706. This study launched the proposal of a widespread ancient nation of the Celts and his conclusions found an extensive number of followers (Poppe, 2001, pp. 305-12).

Lhuyd's deep concern for linguistic evidence and the rationale for the functioning of languages and language variation is demonstrated by several of his principles:

– «the division of a language [proceeds] into dialects; which upon further changes, growing unintelligible, become in time distinct languages» (*AB*, p. 1);
– the development of a dialectological spectrum occurs on the basis of a comprehensive engagement of actions concerning the *alteration of the notions*, the *transposition, addition and substraction of letters*, the replacement of *prepositions in compounds* and the use of *different terminations*, the *mispronunciation*, the introduction of *foreign words* (*AB*, p. 3);
– Aquitanian and Belgic are not «deriveable» from the common Celtic source (*AB*, first page in the "Preface");
– following Ray's technique (Le Bris, 2009, pp. 182-3), Lhuyd advanced in field-linguistics and supplied the lack of extensive literature with the use of good informants, as is the case in Britanny (Le Bris, 2009) and Cornwall (Tourneur, 1905, pp. 151-4);
– the investigation of Welsh manuscripts convinced Lhuyd of the possibility of retrieving in glosses and in the Juvencus manuscript an older stratum of the language that could be detected in later texts (Roberts, 1995, 1997, 1999);
– there is only a probability that primitive words were monosyllables (*AB*, p. 267), excluding the compulsory need to posit the principle, probably founded on the evidence taken from this "natural" feature of Chinese (Schreyer, 1992, p. 7);
– different sets of «rules» should account for keeping apart loanwords from inherited vocabulary («receiv'd from other nations [...] receiv'd from ours», *AB*, pp. 266-7);
– mechanism of sound correspondences and sound changes are used to show cognation (Ellis Evans, 2004, p. 5);
– any conjecture has to be based on a substantial set of agreements (Cram, 1996, p. 571);
– «etymology is not [...] a speculation merely groundless or conjectural» (*AB*: first page in the "Preface");
– the procedure of induction experimented on recorded facts is based on general/universal propositions – the *tabulae* of knowledge are oriented *pro charactere universali* –, granting a taxonomy to the recurring results. Therefore, as far as languages are concerned, the criteria for relationship go beyond a typological resemblance and confirm the value of etymology for the assessment of language derivation.

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