

# FRAMING NATURE IN SEVENTEENTH-CENTURY ENGLISH PAMPHLETS ON JAMAICA

## A corpus-assisted discourse study

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**Abstract** - In my paper I shall analyse the English framing of Nature and its resources in a specialised corpus of 17th-century propaganda pamphlets on the occupation and colonization of Jamaica (PonJ), dating from 1655 to 1700 and amounting to 212,000 words. By drawing on Charteris-Black's definition of frame as a socially shared perspective on something which generates ideologies through its repeated usage (2019, p. 16), I adopt a corpus-assisted methodology in order to identify the most frequent Nature-related words in the corpus and examine their semantic patterns of occurrence through concordance tabs. The quantitative approach is combined with the qualitative one so as to tackle the relationship existing between semantic patterns retrievable from the corpus and aspects of the wider historical and socio-cultural context, including the propaganda purpose of the author and the reception of the target readership. Results show that Nature-related words are principally encoded within a frame of "utility", "bountifulness" and "domestication" which shape Nature as an ever-lasting resource to be quickly turned into subsistence and export commodities, in line with an anthropocentric worldview. The findings reflect the natural philosophical project of recovering the 'empire' of human beings over Nature through colonization. Nature in the Caribbean was represented as a storehouse of new and apparently unlimited natural resources to be studied, (over)used and cultivated. Some deviations from this conceptualization, however, occur and show that by the end of the century, regulations against uncontrolled hunting of local species were put in place with some sense of 'conservation' for future generations.

**Keywords:** nature; frame; 17<sup>th</sup> century; English pamphlets; Jamaica.

## 1. Introduction

According to Richard H. Grove "colonial expansion exerted the most potent influence on European perceptions of the human relationship with the environment" (1996, p. 24). This was even more so in the case of the 17<sup>th</sup>-century English settlement in the Caribbean, where the peculiarities of the ecosystem clashed with the customs, habits and general constitution of the newcomers in an unprecedented way. After the conquest of Jamaica in 1655, the English invading army spent 5 years on the island dying of diseases and starvation. As a hostile Spanish observer put it "Men died like brute beasts. This is not so serious for those who have lived like beasts, obdurate in offences against the Divine Majesty" (Pestana 2004, p. 180). The extreme heat also contributed to the general apathy of the settlers to the point that it took about one generation to transform an island conquered from the Spanish into an English colony (Robertson 2002, p. 33).

The English propaganda press attempted to silence narratives of death and afflictions experienced by the colonists. It did so by replacing news of high mortality and lethargy with enthusiastic accounts of the bountifulness of the island. Throughout the century, governmental authorities and entrepreneurs acted as careful gatekeepers of potentially damaging news stories from Jamaica by selecting and controlling the flow of information. In the attempt to construct the desired social reality for their English news consumers, 17<sup>th</sup>-century propaganda pamphlets maximised the benefits and profits which

could derive from migrating to the new colony and minimized the ecological challenge that settlers had to face. Even so, given the ambivalent character of the Caribbean as a place of wonder and threat (Morgan 2022), the language of bountifulness was inevitably interlaced with clues of problematization. In particular, the colonists' anxieties about diseases and habitability of the region emerge from the aspects of Nature which were selected, emphasised, omitted and elaborated within the news frame.

By applying the concept of framing (Entman 1993) to historical news discourse, the aim of my paper is to investigate how aspects of Nature in the Caribbean are shaped and presented in a specialized corpus of 13 propaganda pamphlets (212,000 words) on the occupation and settlement in Jamaica in the period from 1655 to 1700 (PonJ). For the purpose of my analysis, I adopt a corpus-based approach combined with the principles of discourse analysis (Partington 2004). The corpus will be first investigated quantitatively by extracting the most frequent Nature-related content words from the wordlist elaborated by Wordsmith Tools 8.0 (Scott 2021). After that, each node will be analysed in concordances and larger stretches of text in order to identify recurrent patterns of usage and link them to the corresponding conceptual frame. In line with the main features of propaganda discourse (Jowett, O'Donnell 2006), attention will be also given to how behavioural changes are prompted, both at the individual and collective level, through persuasive strategies. In the course of the analysis, attempts will be made to answer the following questions:

- 1) What are the most frequent Nature-related words in 17<sup>th</sup>-century pamphlets on Jamaica?
- 2) What lexico-syntactic patterns are Nature-related words mostly found in?
- 3) What is the perception which arises from the reiterated representation of Nature-related concepts in the same way?

The present paper is structured as follows: section 2 presents the corpus and methodology used, section 3 is dedicated to the quantitative and qualitative analysis of the data, in section 4 some preliminary conclusions are drawn.

## 2. Corpus and Methodology

The specialised corpus of pamphlets on Jamaica (PonJ) contains 13 pamphlets printed in England from 1655 to 1700.<sup>1</sup> The corpus amounts to 212,000 tokens and was collected from the *Early English Books Online* archive (*EEBO*). By searching for the key word *Jamaica*, the *EEBO* query system returned all the pamphlets which mentioned Jamaica in the time-span under consideration. The 35 years cover the period from the English conquest of Spanish Jamaica in 1655 until the end of the century when a new Anglo-Jamaican identity began to take shape as a result of a mutual domestication process which involved both the natural environment and the settlers' way of living (Robertson 2002).<sup>2</sup>

<sup>1</sup> Pamphlets were short quarto books typically consisting of between one and twelve sheets. They were swift to produce and relatively cheap to purchase thanks to the smaller size and poorer quality of the paper and the ink. As a cheap commodity for mass consumption, pamphlets represent one of the most successful forms of early modern news discourse. Seventeenth-century occasional pamphlets reported on many different topics: natural disasters, criminal deeds, monstrous births, prodigies, political spectacle, naval confrontation, notorious battles, discoveries and colonization of the New World and whatever might attract the reader's curiosity (see Raymond 2003).

<sup>2</sup> Not all pamphlets are available in digitized format, which inevitably leads to gaps in data collection. For example, it has not been possible to include *The Jamaica Almanack* by John Gadbury (1672), a work that illustrates how science and astrology were employed in the service of colonial propaganda under King

The digitized pamphlets were downloaded and saved as a single TXT file and processed with the aid of Wordsmith Tools 8.0 (Scott 2021) to obtain a wordlist. From the wordlist the most frequent Nature-related content words were extracted. In order to identify which words could be considered Nature-related, I used [relatedwords.io](http://relatedwords.io), an online tool which helps find relevance-sorted words related to another word. From the results obtained I left out words relating to human beings (*people, men, women, man, Indians, inhabitants*) so as to focus on words referring to Nature in the sense of “the phenomena of the physical world collectively; as plants, animals and other features and products of the earth itself as opposed to humans and human creations” (*OED*). The final results of the ten most frequent Nature-related words in PonJ are reported in Table 1.

N	WORD	FREQUENCY
1	nature	308
2	land(s)	228
3	water(s) as noun water as verb	160 13
4	sea	172
5	fruit(s)	143
6	river(s)	135
7	heat as noun heat as verb	114 7
8	tree(s)	119
9	fish	110
10	plantation(s)	108

Table 1  
The ten most frequent Nature-related words in PonJ (1655-1700).

The focus of the analysis is on how the frequent words (Table 1) are framed in context through their co-occurrence with other semantically related words to form networks of meaning in early modern pamphlets. By comparing the occurrences of these tokens with those in the *Lampeter Corpus of Early Modern English Tracts* (1640-1740), used as the reference corpus, we can observe that not all of the words in the list appear within the first 200 results of keywords in PonJ.<sup>3</sup> Indeed, a keyness calculation performed using Wordsmith Tools 8.0 shows that the words *nature, land, sea, and water* do not exhibit a high level of keyness. However, the frequency of their usage is still higher in the target corpus (*nature*: 0,14%, *land*: 0,10%, *water*: 0,08%, *sea*: 0,08%) than in the reference corpus (*nature*: 0,05%, *land*: 0,03%, *water*: 0,03%, *sea*: 0,04%) documenting the focus of the PonJ corpus on environmental issues. The results of the keyness value of the other nature-related words selected for analysis are presented in the table below<sup>4</sup>:

Charles II. Similarly, *The History of the Bucaniers of America* (1695), which recounts the assaults carried out by the buccaneers of Jamaica and Tortuga along the coasts of the West Indies, is not included in the corpus.

<sup>3</sup> *The Lampeter Corpus of Early Modern English Tracts* is compiled by Josef Schmied, Claudia Claridge and Rainer Siemund (1999) and amounts to 1,193,385 words. It contains 120 pamphlets belonging to the domains of religion, politics, science, law and miscellaneous. It is available on ICAME and Oxford Text Archive.

<sup>4</sup> The settings for my findings are as follows: p value: 0,1; minimal processing: 200 items; min. frequency 20; min.log ratio: 1,500; min. BIC score 2,500.

No.	KEYWORD	Freq.	%	RC Freq.
18	Heat	121	0,06%	107
24	Fish	110	0,06%	81
28	Fruits	77	0,04%	48
64	Trees	74	0,03%	81
68	Rivers	57	0,03%	46
177	Plantation	33	0,02%	31

Table 2  
Nature-related keywords in PonJ (1655-1700).

The notion of framing has gained the attention of researchers in discourse-based studies and in particular in media discourse since the early 1990s (Charteris-Black 2019; Entman 1993; Moernaut *et al.* 2019; Zeng 2023; Zhongdang, Kosicki 1993; Ziem 2014). In his analysis of the metaphors of Brexit in social media posts, scripted speeches, traditional media and political cartoons, Charteris-Black (2019) builds upon Entman's definition of framing (1993, p. 52) and defines it as the act of "drawing attention to or raising awareness of selective aspects of a particular entity or situation thereby introducing some form of cognitive bias" (2019, p. 16). He continues by saying that when something is repeatedly represented in the same way so that it becomes the established way of thinking about something, it creates a frame or a schema, i.e. a socially shared representation. In other words, the act of framing something in the same way creates mental expectations which then form ideologies. Constructing frames means moulding people's perceptions and knowledge of events and situations in a way that is favourable to the objectives of the author. This is particularly the case in propaganda discourse where the aim of the propagandist (and the elite and authorities behind him) is to convey a particular ideology in the attempt to reinforce or modify attitudes and/or behaviours of the target audience (Jowett, O'Donnell 2006).

In my paper I adopt Charteris-Black's notion of framing as an instrument of corpus-assisted discourse studies (Partington 2004; Stubbs 1996, 2001). This model of analysis combines a quantitative approach – i.e. statistical overviews of large numbers of tokens of the discourse type under study contained in a corpus and queried through concordancing software – and a qualitative approach typical of discourse analysis which takes into consideration language usage not only in the co-text but also in the wider socio-cultural and historical context of text-production and reception (Baker 2006, pp. 17-18; Partington *et al.* 2013, p. 11). This mixed methodology allows both for the identification of the most frequent Nature-related words in the PonJ corpus and for the analysis of their patterns of usage in context. The co-occurrences which emerge from the corpus are then examined in relation to the analytical lens of framing in order to investigate the knowledge-building processes through which authors spread the ideology of a profit-making migration to Jamaica. In the 17<sup>th</sup> century, English society attributed a set of values to exotic natural environments, such as bountifulness, commercial profitability, God's providence (Morgan 2015). At the same time overseas ecosystems were associated with disease, famine and death for many European settlers (McNeill 2007; Morgan 2022). The values that are included or prioritized in the framing of nature in Jamaica determine which aspects were perceived as problematic by the news-consumers in England and other parts of the Empire and how problematization was minimized by re-framing Nature in the "torrid zone" within positively evaluated reality paradigms.

The analysis will be carried out bearing in mind that framing does not assume a one to one correspondence between the intended meaning and the reader's reception of it

(Zhongdang, Kosicki 1993). Indeed, readers can resist the author's positive framing of the natural environment in Jamaica on the basis of previous knowledge acquired from counter-narratives which might have slipped through the net of control.

### 3. Analysis

The analysis of my data is based on a selection of five words taken from the 10 most frequent Nature-related words in Table 1. These are *nature*, *land*, *water*, *heat*, *fish* and *plantations*. The words left out share a similar usage and framing to those that have been singled out. In particular, *sea* and *river* fall within the paradigm of utility for settlement as is the case for *land* and *water*, whereas *fruits* and *trees* mostly occur within the same semantic network of abundance as *fish*.

#### 3.1. Nature

Already in the 17<sup>th</sup> century the word is used with the following senses documented in the *OED*:

- I. Senses relating to physical or bodily power, strength or substance
- II. Sense relating to mental or physical impulses and requirements
- III. Senses relating to innate character.
- III. 8.a. The inherent or essential qualities or constitution of a thing; the inherent and inseparable combination of properties giving any object, event, quality, emotion, etc. its fundamental character.
- IV. Senses relating to the material world.
- IV. 11.a. The phenomena of the physical world collectively; esp. plants, animals and other features and products of the earth itself, as opposed to humans and human creations

In the next sections, the senses of *nature* appearing in the corpus are analysed in detail, following the principle of frequency.

##### 3.1.1. Nature as “innate character of products”

In order of frequency, *nature* is commonly found in the pattern *nature*, [*use*] and *operation* (16 occurrences) referring to the inherent characteristics of the natural products which are present on the island (III senses in *OED*). Although the meaning of *nature* as “innate character” does not straightforwardly relate to the environment, the fact that the term is used to describe natural properties of food items may justify its inclusion in the analysis. According to the anthropologic worldview which frames Nature as a resource to be exploited by humans (Verhagen 2008), the natural products are described and studied in relation to their utility for the health of the English colonists and as profitable commodities to be exported to Europe. The most frequent constructions are *of* + [adj.] + *nature and operation(s)* (8 occurrences) and *its/their* + *Nature*, (*Use*) and *Operation* (6 occurrences), as we can see in the following examples:

- 1. Of Cusado-Bread. This Bread is **of an innocent nature and operation**, yet affords a strong substantial Nourishment, far beyond what most People suppose; (*Friendly Advice to the Gentlemen-Planters*, 1684, my emphasis)

2. There remains as general a restaurative and high, most innocent Cordial, wherever nature shall need succours either for the Sick or well habited Man; of which since we are near the place of its being usually found, I must say somewhat both **of its nature and use** to our desired end. (*A Discourse of the State of Health in the Island of Jamaica*, 1678, my emphasis)

3.[...] a Meal of them now and then will be not only grateful, but also healthful; but if they are eaten green, or ripened off the Trees, then **their nature and operations** will be altogether contrary, and have many ill effects; (*Friendly Advice*, 1684, my emphasis)

4.[...] or at least to give such a general Philosophical Account, that whatever you meet with in these Regions neighbouring to the Sun's more near and direct Beams, you may be well able by this Specimen, and from the Form, Taste, Colour, Smell and Signature of each Vegetable, to understand **its Nature, Use and Operation**. (*Friendly Advice*, 1684, my emphasis)

### 3.1.2. Nature as “generous Mother”

The second most frequent usage of *nature* falls within the IV senses in the *OED* (in particular IV. 11.a). *Nature* is encoded as a “generous Mother” compensating for the hardship of the landscape and climate. The biocentric worldview which features Nature as Mother is actualized in discourse in the form of Nature as do-er of positive actions such as *hath bestowed/provided/stor'd/trimm'd/defended* (7 occurrences) and through the semantic network of “generosity and motherly care” featuring the terms *prodigal, no niggardly, nor novercal, benevolence, Mother, Earth's teeming womb*. The examples below suggest that the “Living Nature” frame coexists with the “Dominion over Nature” view, which is typical of 17<sup>th</sup>-century colonial discourse (Taylor 1992):

5. For here **Nature herself is prodigal** in the number and bigness of her rocky Tablets, heaped one on the other to a portentous crowd of the uprear'd structure, as if the Giants of old had here begun their work of invading the Empyreaum. And lest the horror of these daring Rocks affright too much by their threatening Imminency, **Mother Nature hath kindly mantled them** with a green vesture of delighting Trees strangely ranging one over the other [...] (*A Discourse of the State of Health in the Island of Jamaica*, 1678, my emphasis)

6. With which, the Soil is so pregnant and fertile, that **Nature hath stor'd it in no niggardly nor novercal benevolence**, with Oranges, Lymes, (or bastard Lemmons,) Guavars, Pomegranates, a kind of Pepper, that tastes like Cloves, and very Aromatick (known by the name of Jamaica-Pepper) with innumerable kinds of several Fruits that have scarcely found a name in English with which the Woods are so universally crouded [...]. (*Jamaica Viewed with all the Ports, Harbours, and their several Soundings*, 1661, my emphasis)

7. In the first place, we must in general observe, that all Fruits in hot Climates are better, as being as **by Nature prepared** to an higher degree of Maturity, than in Cold; for the Sun making his nearer visits with auspicious Beams, and an innocent and complemental Warmth both better disposes the **Earth's teeming Womb**, and by a most excellent Chymistry, refines the ripening Fruits from their gross dull phlegmatick Juices (*Friendly Advice to the Gentlemen-Planters of the East and West Indies*, 1684, my emphasis)

Mother Nature is represented as prodigal of resources but no excesses or extravagances on the part of its inhabitants are tolerated. In this regard, abuse and misbehaviour are framed as criminal acts against Nature, as the lexico-syntactic pattern the *law (of God) in Nature* (14 occurrences) reveals:

8. We drink not Wine in Bowls, nor without; and it would be much better and more becoming Christianity, if you did not too; for doth it not heat our Blood, irritate the central Heat, set the whole Body into an unnatural Flame, & precipitate the Mind into Fury and Madness, and excite the Senses to Uncleaness and Bestiality? For pray, good Master! tell me, how many

Villanies of all sorts do some nominal Christians commit against God, and his pure **Law in Nature**, by reason of their Excesses in that kind? (*Friendly Advice*, 1684, my emphasis)

9. And whosoever endeavours sincerely to live according to the innocent **Law of God in Nature**, shall be filled with good things, but those that study to grow rich by Wickedness and Oppression, shall be sent empty away, and both their Estates and their Hopes be scattered like Leaves before the Wind. (*Friendly Advice*, 1684, my emphasis)

### 3.1.3. Nature as “God’s creation”

Another frequent collocate for Nature is *God* (12 occurrences on the left of the node and 1 occurrence on the right of the node) mostly found in the binomial *God and Nature*:

10. Also whatever fruits **God and Nature** have planted from the beginning, or have by the industry diligence of man been transplanted thither from any other part, do thrive in this Land wonderfully. (*A True Description of Jamaica*, 1657, my emphasis)

11. [...] which self-conceited Proceedings are a true *token and demonstration*, that they love to contradict the whole course of **God and Nature**; for he hath made all things *to differ*, and by that difference the Universe is sustained (*Friendly Advice* 1684, my emphasis)

The reiteration of the binomial testifies to the view of the natural world as a reflection of the logic of God’s creation which was at the basis of Calvin’s belief (Kavusa 2021, p. 5). Calvin (1509-1564) understood creation as God’s fine and spacious house, provided and furnished with all it needs to instill knowledge of the Creator. In this way, “God provides for, sustains, and rules the world, not with despotism but care” (Kavusa 2021, p. 5). In the course of the 17<sup>th</sup> century, an increasing adherence to theological immanence affected both philosophical and scientific thought. More than any time since antiquity God is framed as intimately involved with natural processes. Descartes (1596-1650), one of the most influential philosophers of the time, attempted to derive the universal laws of nature directly from God’s “ordinary concourse”. In his view God did not simply ‘set the world going’, he continually gives it existence and motion (Gorham 2009, p. 870). The 17<sup>th</sup>-century view that everything in Nature derives from God’s will stems from a hierarchical structure which – along with phonological and morphological constraints – might have contributed to the ordering pattern of the binomial (Kopaczyk, Sauer 2017, p. 10).

### 3.1.4. Nature as “Physician”

Nature (IV senses) is also framed as the only Physician capable of providing remedies for all diseases and distempers in Jamaica. The noun co-occurs with the trigger-words “Physician” and “curer” together with other semantically related words indicating medicaments, cures and remedies to illnesses and distempers (11 occurrences):

12. [...] so then seeing **Nature hath provided us so plentifully with sufficient Remedies against so common an Enemy [worms], it’s our own fault if we suffer for the want of the benefit thereof.** (*A Discourse*, 1678, my emphasis)

13. [...], **and hitherto nature is the sole Physician and ever afterwards the truest Indicator to the sagacious, what ought to be done.** (*A Discourse*, 1678, my emphasis)

14. Wherefore as **Nature is the infallible curer of every distemper**, and she by how much the more simple, the less must be opposite and querrelsome: Whatso of Remedy comes nearest to nature must needs be most proper and less liable to hazards [...] therefore most natural remedies seem first to be desired as most safe, most pleasant and benign. (*A Discourse*, 1678, my emphasis)

### 3.1.5. Nature as “human nature and physical impulses”

Finally, *Nature* is used in its meaning of “human nature and physical impulses” (II senses in the *OED*). The word co-occurs with *place* shaping the view that colonists’ nature and customs have to be adjusted to the physical environment in order for them to survive. The Caribbean offered an exotic location which fostered an empirical and experimental approach to sciences such as medicine, botany, anthropology and the study of the relationship between human beings and the environment (Morgan 2022, p. 21). This sparked reflections on the necessity of human adaptation to an ecosystem which was so different from that to which the English were used. In PonJ there are 6 occurrences of the word *place* as collocate of *nature*. The following excerpts are taken from the pamphlet *A Discourse of the State of Health in the Island of Jamaica* (1679) written by Thomas Trapham, a physician:

15.[...] wherefore let our moderation be known herein by prolonging our lives through alteration of customs to a suitable adjustment of **Nature and Place**. (*A Discourse*, 1678, my emphasis)

16.[...] we retain our ancient English humor (most desirable in its proper place) as to eating and drinking, and **other the acts of Nature** no way to be neglected or perhaps diminished, only in an order suitable to the change **of the place**, to be better husbanded for **the vigor of Nature** and prolonging of Life. (*A Discourse*, 1678, my emphasis)

17.Wherefore the vast variety of Fish are found a great as well as a most suitable nutriment, and the Natives though descended from great flesh eating Parents prefer a Fish diet, and whatso is easily convertible to humane service, before stubborn flesh, [...] a demonstration, what the **nature of the place requires**, and **therefore to be complied with** by the reasonable observer (*A Discourse*, 1678, my emphasis)

### 3.2. Land(s)

In accordance with the profit seeking mentality of the English settlers, *land(s)* is framed in terms of its utility for plantation. Among the most frequent collocates of the node are the words *miles* (12 occurrences) and *acres* (5 occurrences).<sup>5</sup> The collocates are often premodified by numbers indicating the extension of plantable land or of an estate/possession on the basis of which hunting rights are granted in the island. In both cases they are meant to advertise the profitability of Jamaica for settlement and plantation:

18.These incarnate devils [the Spaniards] laid waste and spoiled above **400. miles of most fertile land**, containing very great Provinces, fruitful Vallies **forty miles in length**; and an infinite number of Villages abounding with Gold and Silver. (*Tears of the Indians*, 1656, my emphasis)

19.Directions about a Cocoa Walk. First, take up **5 or 600 Acres of Land**, which be sure choose in a good place proper to produce the Cocoa, which will cost for the Surveying and Patent 010 1. 0 s. (*A Description of the Island of Jamaica*, 1672, my emphasis)

20.It further enacted by the Authority aforesaid, That no Person whatsoever shall be capable of Hunting with any Gang of Dogs in this Island, that is not a Planter in it, and hath not at least **five Acres of Land** Planted. (*The Laws of Jamaica*, 1683, my emphasis)

<sup>5</sup> The collocates are calculated within a range of five words to the left and five words to the right of the node. Other relevant content words occurring as nearby collocates of *land* are *sea* (10), *brezes* (6), *houses* (5).

Amongst the left hand collocates of *land* feature premodifiers belonging to the semantic area of fertility (e.g. *fertile*, *plantable*, *expatiating level*) which are meant to convince news consumers of the adaptability of the soil to plantation. In line with the “Nature as resource” frame, land is represented as available to be used, transformed and exploited for the utilitarian aims of the settlers, as we can see from the proximity of the words *plantation* and *settlement* to the node:

21. And now the Inhabitants find the goodness of that Soyl Liberally Recompence the want of Harbours and Pasturage, and distance from the Chief Port and Seat of Government, for its very **Fertile Land** covered with Excellent Timber; it's a little Hilly, but full of fine Rivers, and all **Conveniencies for Plantations**. (*The Present State of Jamaica*, 1683, my emphasis)

22. May it always abide in its strength, projecting its numerous shafts as their Decus and Tutamen of the whole Island: the string of this lovely Bow is the most convenient Harbour of Port Royall, from whence **the expatiating level Land** and large Savannas crowd backward the swelling Mountains many a fair Mile, **affording a most benign Seat to numerous settlements** (*A Discourse*, 1678, my emphasis)

### 3.3. Water(s)

The medical preoccupation with the quality of water (as verb) and air (Grove 1996) was at the very basis of the attention devoted to water supplies and climate conditions in the pamphlets on Jamaica. The major aspect of water to be selected and foregrounded for narration is its quality, which is indicative of problematization relating to its consumption. The many references to the *better water*, *remarkable good water*, *best of any River water*, *excellency of the water*, *more clear*, *more pure and far cooler*, *fresh water* provide an excessively positive representation of supplies of good water in Jamaica which aims to reassure the anxieties of potential new settlers:

23. [...] and by this time viz. of an hour we are arrived the Bridge, eminent for it's **remarkable good water**; and here we must needs drink, as Custome is, and by drinking commend the same, **as the best of any River water in Jamaica**. (*A Discourse* 1678, my emphasis)

24. Hence though we mount not without some straining difficulty the aspiring heights of Hills, we are well recompenced **by the excellency of the water**, usually found **there more clear, more pure, and far cooler, truly slacking and not exasperating, as some waters do**, the deceived thirst. (*A Discourse* 1678, my emphasis)

The most frequent collocate for water is *rivers* (7 occurrences) found in the lexico-syntactic patterns [*very well/over-plentifully*] *watered with/by rivers* (6 occurrences) and *Rivers that so plentifully waters the Island*:

25. It is **watered by** thirty thousand Rivers and Rivolets, whereof twelve are not lesse then either Duerus, Ebrus, or Guadalgevir: all the Rivers which run from the Mountains on the west side, whose number is twenty thousand, do all of them abound with gold. (*The Tears of the Indians*, 1656, my emphasis)

26. From East to West along the midst of the Isle runs a continued Ridge of lofty Mountains which are full of fresh Springs, whence flow the many **Rivers that so plentifully waters** the Island, to the great refreshment and accommodation of the Inhabitants. (*A Description of the Island*, 1672, my emphasis)

The very positive semantics surrounding the node implies that the major issue in the

Caribbean was both quality and shortage of water. As Grove claims, “the problem of colonial settlement had become intertwined with difficulties in the provision of adequate water both for settlers and for shipping” (1996, p. 30). The shortage of drinkable water, for example, was represented as one of the main reasons for the defeat of the English troops at Hispaniola, as we can see from the pattern *want of water* (4 occurrences):

27.The Generall taking into consideration the disability of the Army at that time, and exceeding **want of water** amongst them (*A Brief and Perfect Journal* 1655, my emphasis)

28.[...] as also the extremities and wants they were driven to in their marches, for **want of water** and other necessaries in those hot Countreys, whereby they were much disabled (*A Brief and Perfect Journal* 1655, my emphasis)

In the corpus 19% of the occurrences of *water* (as noun) is in the plural form, suggesting that settlers soon realized how differences of water affected life not only of the vegetative but also of the breathing world. As a result, they learned quickly to test water in order to understand its properties and drew distinctions among *mineral water(s)* (3 occurrences), *well water(s)* (3 occurrences), *rain water* (2 occurrences) and *pond water* (2 occurrences):

29.The most general allowed **Test of waters** is **their lightness**, of which the best partakes most: Whereby **all mineral waters**, though never so limpid are first to be excepted against, at least in the way of nourishment, though not as to medicinal effects. (*A Discourse* 1678, my emphasis)

30.As for the **Well waters** wheresoever they are used, as too frequent they are especially in Ligania, they are found **too heavy** for our necessary brisk circulation of Blood [...]. **Pond water** as either arising from higher Springs or containing **Rain water**, both farther concocted of the Heavens, makes a more wholesome than delightful water; (*A Discourse* 1678, my emphasis)

### 3.4. Heat

Along with water, tropical heat represents a major threat to life in the colony. It is for this reason that *heat* is more frequently mentioned than *air* or *climate*. Heat is commonly framed with negative semantics, the most frequent premodifiers being *non-natural* (8 occurrences) *excessive* (6 occurrences), *scorching* (4 occurrences), *extraordinary*, *devouring*, *intemperate*, *severish*, *brutish*, in their turn accompanied by a semantic network of illness and discomfort. Even so, given the propaganda character of the pamphlets, the negative conceptualization of tropical heat is consistently softened by reference to compensatory breezes/winds which mitigate the climate, making it not only perfectly habitable but even more beneficial to health than the Northern European climate to which the English people were accustomed. Heat is therefore framed as being a “naturally domesticated issue” with beneficial effects on natural products and human life, as we can see from its co-occurrence with the positively evaluated words *breeze/wind*:

31.Nature provides always **delicate cooling Briezes** and **refreshing Gales of Wind**, which not only relieve the Inhabitants from the **ill effects of an excessive Heat**, but much conduce to the **melioration of the Fruits**. (*Friendly Advice*, 1684, my emphasis)

32.For of necessity all things must **be suffocated and dry** between the Tropicks, did not the **extraordinary heat** generate the **extraordinary winds** to give a suitable supply of often to be changed breath, **ventilating our Lungs with renovating changes of fresher air** (*A Discourse*, 1678, my emphasis)

33. Proved that it [the air] is thick and gross notwithstanding **the excessive heat**, but that **the great inconveniences** which would otherwise thereupon ensue, **prevented by its constant agitation with winds** (*A Discourse*, 1678, my emphasis)

34. Yet as the extremities of cold in these Regions betwixt the Tropicks are indisputably more remisse then in England, and the rest of Europe; so the **heat qualified with the benefit of the Breezes**, more justly styles them Temperate, then those Climates that have already falsly, (though with vulgar consent) usurp'd the Title. (*Jamaica Viewed*, 1661, my emphasis)

The framing of heat as a naturally domesticated evil paves the way to the re-framing of the air and climate from tropical to temperate and from lethal to beneficial to the health of the settlers:

35. **The Air is here more temperate** then in any of the Caribbee Isles, as seated more Northerly, and of as mild a temperature (as to Heate) as any place between the Tropicks, being always cooled with fresh Breezes, that constantly bow easterly, and refreshed with frequent Showers of Rain, and such Dewes that fall in the night (much quickning the growth of what is Planted) that it may truly be called temperate and healthful (*A Description*, 1672, my emphasis)

36. It lies under that which is called the Torrid Zone, nevertheless **the Air is moderately temperate**, occasion'd by the long absence of the Sun every night, by the strong Easterly Breezes which generally blow from 8 or 9 in the Morning to 4 or 5 in the Afternoon, and by the Land Wind, which is a small cool Breeze that comes off the Shoar from all parts of the Island in the Evening, and blows gently all Night. (*The Laws of Jamaica*, 1683, my emphasis)

37. [...] **the Air being always serene and weather constantly temperate**, though usually reputed very hot, yet it's only so comparatively in respect of these Northern Climates, being with us always Summer as if every Month were June. (*The Laws of Jamaica*, 1683, my emphasis)

38. And I must not credit my senses, if I should not affirm, that upon an impartial compare, I never came in **more temperate Climes** then those of *Iamaica*, *Hispaniola*, *St. Kits*, *Barbadoes*, &c. so slanderously calumniated; (*Jamaica Viewed*, 1661, my emphasis)

### 3.5. Fish

Another frequent word relating to the semantic field of nature is *fish*.<sup>6</sup> The word co-occurs with a network of other words indicating abundance, bountifulness and biodiversity, the most frequent lexico-syntactic patterns being *all/divers/many sorts of* (5 occurrences), *(great) store of* (4 occurrences), *plenty of* (4 occurrences) *sundry sorts of* (2 occurrences) *great variety of* (2 occurrences), *of several/sundry sorts* (2 occurrences), *in such abundance*, *vast quantities of*, *divers other species of*, *vast variety of*, *with abundance of all sorts of*, *plentifull in*, as we can see in the following examples:

39. I need not inform you **of the great variety of Fish**, and Fowl, nor the healthfulness of the place, when a man hath some little time been acquainted with the Ayr. (*A True Description of Jamaica*, 1657, my emphasis)

<sup>6</sup> *Fruits* and *trees* (the fifth and sixth most frequent words in the corpus respectively) have the same collocational and colligational behaviour as *fish*. So, the analysis of *fish* (animals) also accounts for the usage and framing of fruits and trees (plants) as natural products of which Jamaica is an inexhaustible storehouse.

40. There are **sundry sorts of Fish**, under *Indian Names*, without Scales, and of a *Serpentine Complexion*; (*A Trip to Jamaica*, 1699, my emphasis)

41. Notwithstanding for the quality and quantity of Land, it is no lesse fruitfull, and altogether **as plentifull in Fish**, Fowle, and Cattell **of all sorts**; (*A Briefe and Perfect Journal*, 1655, my emphasis)

Fish (as a staple of people's diet) is also framed in relation to its natural suitability to the geographical area of provenance, implying that Nature provides different resources in accordance with the characteristics of the climate and the place, as we can see from the proximity of the modifiers *proper* and *appropriated* to the node word:

42. There is store of Fish, both in the Sea and divers Rivers, not much common to England, but a King of Lobster, Craw-fish, Eels, Mullers, and Spanish Mackrael, **with abundance of all sorts of Admirable Fish proper to those Seas**. (*The Present State of Jamaica*, 1683, my emphasis)

43. This *Island* hath both in the *Rivers, Bayes, Roads, and Creeks*, very excellent *Fish*, and in such abundance that it contributes much to the feeding of the *Inhabitants*; and those that frequent this *Isle*, say, that they have few or none of those sorts common to us in *England*; but **such great Variety of those appropriated to the Indies**, that it would be too tedious to Repeat the names of them, if they were known or Remembered. (*A Description*, 1672, my emphasis)

44. Cavallos, Parrat-Fish, Cony-Fish, and *green Turtles*, which of all others are the most delicious, **with several other sorts appropriated to this and the rest of the Caribbee Isles**. (*A Description*, 1672, my emphasis)

While the framing of *fish* (and fruits/plants) as abundant and healthy/benign contributes to the construction of Jamaica as a bountiful island, its proximity with *poyson(ing)/poisonous/poisoned* confirms the ambivalent attitude of the English settlers towards the Caribbean. The frequent occurrence of the words *poysoning/poysonous* and *poisoned* in the collocational range of *fish* is indicative of the problematization inherent in consuming food in the tropical areas. Even so it is worth pointing out that the collocation is often found in negative constructions, thus denying the existence of such threat in Jamaica:

45. That as in Jamaica no venemous Creatures; so neither in Rivers or Neighbouring Sea any **poysonous Fish** which infest most that dwell on the Continent, Bahama and other Islands of the West Indies (*A Discourse*, 1678, my emphasis)

46. [...] so neither doth our neighbouring Seas or Rivers serve us with any **poysoning Fish**, as are found elsewhere about the Bahama Island & other parts, where its frequent to be strangely affected and meerly **poisoned by eating some sort of fish** and others at sometimes (*A Discourse*, 1678, my emphasis)

Among the animals available in Jamaica one which deserves particular attention is the green turtle/tortoise (38 occurrences). It was very nutritious because of its protein and was the unfortunate object of one of the most devastating examples of overfishing of the period. From 1688 to 1730 a dedicated fleet took some 13,000 turtles per year from Grand Cayman Island to help feed the large British colony of Jamaica (Spalding, Kramer 2004, p. 13). In the corpus the word *tortoise* (18 occurrences) is encoded within constructions including the verb *take* + quantifiers (e.g. *much, great*), manner adverbs (*plentifully*) and prepositional phrases (*in bulk*). The lexico-syntactic patterns reflect the conceptualization of natural products as inexhaustible resources to be hunted, consumed and exploited by

human beings without control:

47. **Great store of Tortoises are taken** on this Coast, whose meat (being excellent) they eat, and their Shells so much esteemed here in England for several curious Works, finds good vent (*A Description*, 1672, my emphasis)

48. **The principal sort is the Tortoise, which they take plentifully** on the Coast; and about 20. or 30. Leagues to the Leeward of port Negril, by the Isles of Camavos, in the months of May, June, and July, do **resort great store of Ships** from the Carribbee Isles to Victual and **Load with** this Fish, it being reputed to be the wholesomest and best provision in all the Indies (*A Description*, 1672, my emphasis)

49. **Tortoise are taken much on this Coast**, but chiefly at the Island Cay Manos, 30 Leagues to the West of this Island, whither the Vessels go May, June, and July to Load of their Flesh that they Pickle **in Bulk** (*The Present State*, 1683, my emphasis)

Already at the end of the 17<sup>th</sup> century authorities realized the drastic reduction in the number of turtles available and the government of Jamaica attempted to prevent egg trade and the destruction of turtle nests by introducing fines and other forms of punishment for transgressors. Conservation became an issue in the late 17<sup>th</sup> century and governmental control was put in place in order to guarantee the preservation of the species, as shown in the example below:

50. And be it further Enacted by the Authority aforesaid, that any Person whatsoever that shall destroy any Turtle Nests, or take away any of the Eggs thereof upon any Bay or place within this Island, where the Turtle shall lay, shall forfeit forty shillings currant Money of this Island, or receive so many Lashes on the bare Back, as any Justice shall Order, not exceeding Nine and Thirty for every such Offence. (*The Laws of Jamaica*, 1683)

### 3.6. Plantation(s)

Plantations in Jamaica are commonly framed within two major semantic networks: profitability and protection from danger/damage. The emphasis on profitability is actualized in discourse through the “comparison and contrast” persuasive strategy (Partington, Taylor 2018). In particular, comparisons are made with other American plantations to reinforce the claim that the colony in Jamaica is profitable and more advantageous than any other English plantation or settlement in the Western world.<sup>7</sup> The most frequent collocates for *plantation(s)* are *English* (7 occurrences), *American* (4 occurrences), *Western* (4 occurrences), *America* (3 occurrences). The lexico-syntactic patterns *American plantations* (4 occurrences) and *English plantations in America* (3 occurrences) often co-occur with positive evaluative semantics relating to abundance, quality and profitability as we can see in the following examples:

51. And the great encouragement of gaining Riches, with a pleasant life, doth invite every year abundance of People to Inhabite here, quitting their concerns at Barbadoes, and other our **American Plantations**; so that in a short time without doubt it will become **the most potent and richest Plantation in the West-Indies**. (*A Description* 1672, my emphasis)

52. Jamaica is found to precede all the **English Plantations in America**, in the very Commodities that are proper to their several Colonies, and produceth also of its own Cacao,

<sup>7</sup> Under English rule, Jamaica became one of the leading Caribbean sugar producers: in the period between 1671 and 1684 the number of sugar plantations rose from 57 to 286 and sugar output increased tenfold (Richards 2003, p. 444).

Hydes, Tortoise-shells, Wood for Dyers, Gums, Druggs, and other Commodities already treated of; (*A Description*, 1672, my emphasis)

53. In this Isle are greater abundance of Cattle then in most of the **English Plantations in America**; as Horses, which are here so plentiful, that a good Horse may be bought for 6 or 7 l. (*A Description*, 1672, my emphasis)

The second semantic framework within which *plantation(s)* is found is that of protection/preservation, as we can see from the proximity between *plantation(s)* and words such as *defence*, *security*, *preventing damages*, *prevention*, *care*, *preserving*, *government*. It is interesting to note that the social concern about care and preservation regards plantations where human labour is involved rather than natural resources (e.g. trees, woods, fish, plants, birds) which are still perceived as unlimited. The care for plantations is also determined by the fact that in cases of domestic or international territorial disputes, “the clearing and the settlement of land with a sufficient labour force to keep it in cultivation provided the soundest claim to ownership” (Grove 1996, p. 65). In this sense, not only did plantations have an economic value but also a socio-political one, as ownership was at the very basis of the notion of liberty in the emerging British Empire (Cecconi 2025):

54. That they shall have power to build Walls, and raise Bulwarks and Castles upon their own Land **for the defence, and security of their own plantations**; (*A Full Account of the late dreadful Earthquake at Port Royal in Jamaica*, 1692, my emphasis)

55. An ACT For **preventing Damages in Plantations, Preserving of Cattle, and Regulating Hunting**. BE it Enacted by the Governour, Council, and Assembly, and it is hereby Enacted by the Authority of the same, That all Plantations bounding in Savanna's, High-ways, Watering-places, and all Pastures made out of Wood-land, shall make sufficient Fences, which sufficient Fences shall be judged by Oath of Three Free-holders before any one of His Majesties Justices of the Peace, (*The Laws of Jamaica* 1683, my emphasis)

56. We shall be inforced to quit the present **care of our Plantations**, and attend on the Enemies motion, whereby our said Plantation will run to ruin, our Cattle and other Stock run wild, our Slaves take the Woods; (*Sir Henry Morgans Voyage to Panama*, 1670, my emphasis)

57. **The Management of a Plantation, ought to be the Masters care**, yet few of them (except those of the meaner degree) are without their Overseers, who takes off that trouble from them; (*A Description*, 1672, my emphasis)

## 4. Conclusion

Propaganda pamphlets played a crucial role in shaping people's perception and conceptualization of Nature in the colony of Jamaica. The representation of this particular environment was biased by the commercial interests of grandees and investors whose profit was largely dependent on the migration of new settlers to the island and on people's general confidence in the English colonial expansion in those areas. In this way, the printed paper had the potential to become an agent of power which – through the force of propaganda – impacted on people, prompting the desired change of mind and behaviour. The corpus-based analysis has revealed an ambivalent representation of Nature, oscillating between the frame of “human Dominion over Nature”, which encodes Nature as “a storehouse of resources to be employed for the satisfaction of ever-increasing material needs by an increasing population of colonists” (Taylor 1992, p. 27) and the frame of the

“Living Nature”, which ascribes to Nature an active role as part of the living world. This ambivalence reflects the complex interplay of religious belief, scientific development, and philosophical thought that characterized the 17th-century approach to the natural world. From a religious perspective, Nature was seen as God’s creation, while the emergence of modern science – led by figures such as Francis Bacon (1561-1626), Robert Boyle (1627-1691), and John Locke (1632-1704) – promoted empiricism and the idea that Nature should be studied and understood through observation and experimentation. Within the framework of natural philosophy, studying Nature was viewed as a means of recovering humanity’s dominion over the Earth, a dominion granted to Adam and Eve but lost in the Fall. In this context, the colonization of the Caribbean in the early modern period became central to the natural philosophical project of reclaiming humanity’s empire over Nature (Irving 2015, p. 12).

In line with the “Dominion over Nature” framework, three aspects of Nature are selected and foregrounded in 17<sup>th</sup>-century pamphlets: utility, bountifulness and domestication. Utility is principally applied to the characteristics of natural products for the English settlers’ survival on the island (e.g. cure, treatments against diseases and nourishment to prevent diseases and distempers). Bountifulness creates the prospect of a prosperous life in the colony which is skillfully depicted as a storehouse of unlimited natural resources that cannot be found in England. Domestication, intended as the exploitative process of controlling and bending the environment to the needs of humans, is traceable in the collocational behaviour of the words *land* and *plantation(s)*, showing how settlers conceived of the “fertile land covered with excellent timber” as ideal for its conversion into plantation. According to Irving (2015, p. xiii), the early modern principle of cultivation became the basis of Locke’s theory of property. In Locke’s view, the land that people cultivate can be legitimately taken as private property. His theory had significant implications for the justification of the dispossession process of occupied lands. Indeed, if indigenous people did not subdue to the earth and cultivate it, then the land was free to be taken by the English.

In the PonJ corpus the anthropological worldview of Nature is somehow combined with the biocentric one. As a matter of fact, English colonists soon realized that their role as masters of the island was dependent on the acknowledgement of their vulnerability in the tropical ecosystem. In this sense, human adaptation to the character and laws of the physical environment became crucial to the successful colonization of Jamaica, as revealed by the co-occurrence of the word *Nature* (i.e. the human, physical impulses of the English) and *place* (standing for the Caribbean ecosystem) and by the lexico-syntactic pattern *Law (of God) in Nature*, under which the “criminal” excesses of the colonists were systematically punished by a vengeful Mother-Nature.

Horrible stories about life in the Caribbean circulated by word of mouth and pamphlet readers were likely to approach the news with some pre-conceptions about the hardships experienced by those who had left for the West Indies. Propaganda tried hard to intercept, mitigate and defuse these negative counter-narratives in order to persuade people of the profitability of the colonial enterprise at times even resorting to fabrication of positive news (Greenspan 2023). In this regard, Nature-related words, especially those representing an existential threat to the English settlers such as the heat and the quality of food and water, underwent a semantic re-encoding from negative into positive. This re-framing consists in the identification of the problematic aspect, its downplaying or denial and the selection and foregrounding of the positive features of the item described, as shown in the collocational behaviour of the words *heat* and *air*.

It is difficult to establish to what extent people were convinced by the power of the press. Some might have been attracted by the optimistic accounts of the life in Jamaica

along with the prospect of acquiring privileges and property rights on the lands. Even so, a certain degree of skepticism remained, as documented by manuscript sources. For example, in the aftermath of the capture of Jamaica, the Florentine resident in London Amerigo Salvetti (1572-1657) reported to the Grand Duke of Tuscany that English people did not fully believe in the optimistic accounts provided by the generals and published in the press, neither did they express any desire to settle in Jamaica, after seeing the terrible health conditions of those who had just come back from the island.<sup>8</sup> This suggests that, despite the government's efforts to persuade people to migrate to the new colonies, the power of rhetoric may have been at times undermined by eye-witness reports and rumours that governors worked hard to suppress.

Overall, the analysis of the PonJ corpus has revealed that Nature was framed as an ever-lasting resource to be quickly transformed into subsistence and export commodities, in line with an anthropocentric vision of the world. However, some deviations from this conceptualization can be found in my dataset. By the end of the 17<sup>th</sup> century, authorities felt the need to introduce regulations against the uncontrolled hunting of local species, suggesting a sense of 'conservation' driven by the necessity to ensure that future generations could survive on the island and that the English colony could be preserved.

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<sup>8</sup> “Contuttociò non pare che questo popolo dia intera credenza a questa sua [General Penn's] relazione, nè che mostri nessuna inclinazione ad andarvi ad abitare, vedendo per sperienza che quelli che ne sono ritornati vivi si ritrovano qui hora tutti ammalati et con visi molto macilenti.” (24 September 1655 in *MLA*) *Taking all this into consideration, it does not seem as though this people [the English] fully believes his [General Penn's] report, nor do they show any inclination to go there to live since they see with their own eyes that those who have returned alive are now all ill, with wasted, emaciated visages.*

## References

- Baker P. 2006, *Using Corpora in Discourse Analysis*, Continuum, London.
- Cecconi E. 2025, *British ideologies in the (re)-shaping of the American identity: A corpus-based analysis of the possessive our in American newspapers (1764-1783)*, in Claridge C. (ed.), *News with an Attitude: Stance and Ideologies in the Historical Press*, Benjamins, Amsterdam, pp. 12-32.
- Charteris-Black J. 2019, *Metaphors of Brexit. No Cherry on the Cake?* Macmillan, Cham.
- Entman R.M. 1993, *Framing: Towards Clarification of a Fractured Paradigm*, in "Journal of Communication" 43 [4], pp. 51-58.
- Gorham G. 2009, *God and the Natural World in the Seventeenth Century: Space, Time and Causality*, in "Philosophy Compass" 4 [5], pp. 859-872.
- Greenspan, N. 2023, *Mercurius Politicus and the Jamaica Invasion, 1655*, in Brownlees, N. (ed.) *History of the British and Irish Press (1640-1800), vol.1*, Edinburgh University Press, Edinburgh, pp. 489-492.
- Grove R. 1996, *Green Imperialism*, Cambridge University Press, Cambridge.
- Irving, S. 2015, *Natural Science and the Origins of the British Empire*. Routledge, London and New York.
- Jowett G.S. and O'Donnell V. 2006, *Propaganda and Persuasion*, Sage, Thousand Oaks.
- Kavusa K.J. 2021, *John Calvin and creation: Retrieving Calvin's ecological insights on Genesis 1*, in "Stellenbosch Theological Journal" 7 [1], pp. 1-24.
- Kopaczyk J. and Sauer H. 2017, *Defining and Exploring Binomials*, in Kopaczyk J. and Sauer H. (eds.) *Binomials in the History of English*, Cambridge University Press, Cambridge, pp. 1-24.
- McNeill J.R. 2007, *Yellow Jack and Geopolitics: Environment, Epidemics and the Struggle for Empire in the American Tropics, 1640-1830*, in Hornborg A., Mc Neill J.R., and Martinez-Alier J. (eds.) *Rethinking Environmental History*, Altamira Press, Lanham, pp. 199-217.
- Moernaut R., Mast J. and Temmerman M. 2019, *All Climate stories worth telling. Salience and positionality at the intersection of news values and frames*, in "Discourse, Context and Media" 10, pp. 93-111.
- Morgan D.P. 2022, *The Caribbean Environment to 1850*, in Morgan P.D., Mc Neill J.R., Mulcahy M. and Schwartz S.B. (eds.) *An Environmental History of the Caribbean: Sea and Land*, Oxford University Press, Oxford, pp. 19-129.
- Morgan D. 2015, *The Forge of Vision. A Visual History of Modern Christianity*, University of California Press, Oakland.
- Richards J.F. 2003, *The Unending Frontier. The Environmental History of the Early Modern World*, University of California Press, Berkeley.
- Pestana C.G. 2004, *The English Atlantic in an Age of Revolution, 1640-1661*, Harvard University Press, Cambridge Mass.
- Robertson J. 2002, 'Stories' and 'Histories' in Late Seventeenth-Century Jamaica, in Monteith K.E.A. and Richards G. (eds.) *Jamaica in Slavery and Freedom. History, Heritage and Culture*, University of the West Indies Press, Barbados, pp. 25-51.
- Stubbs M. 1996, *Text and Corpus Analysis*, Blackwell, London.
- Stubbs M. 2001, *Words and Phrases: Corpus Studies of Lexical Semantics*, Blackwell, London.
- Partington A. 2004, *Utterly content in each other's company. Semantic prosody and semantic preference*, in "International Journal of Corpus Linguistics" 9 [1], pp. 131-156.
- Partington A, Duguid A. and Taylor C. 2013, *Patterns and Meanings in Discourse*, John Benjamins, Amsterdam/Philadelphia.
- Partington A. and Taylor C. 2018, *The Language of Persuasion in Politics*, Routledge, London and New York.
- Raymond J. 2003, *Pamphlets and Pamphleteering in Early Modern Britain*, Cambridge University Press, Cambridge.
- Scott M. 2021, *Wordsmith Tools*. Version 8.0. Oxford University Press.
- Spalding M. and Kramer P. 2004, *The Caribbean*, in Glover L.K. and Earle S.A. (eds.) *Defying Ocean's End*, Island Press, Washington DC, pp. 7-42.
- Taylor D. 1992, *Disagreeing on the Basics. Environmental Debates Reflect. Competing World Views*, in "Alternatives: Perspectives on Society, Technology and Environment" 18 [3], pp. 26-33.
- Verhagen F.C. 2008, *Worldviews and metaphors in the human-nature relationship: An ecolinguistic exploration through the ages*, in "Language and Ecology" 2 [3]. Retrieved from [http://www.ecoling.net/worldviews\\_and\\_metaphors\\_-\\_final.pdf](http://www.ecoling.net/worldviews_and_metaphors_-_final.pdf).
- Zeng W.H. 2023, *Corpus-based metaphorical framing analysis: War metaphors in Hong Kong public discourse*, in "Metaphor and Symbol" 38 [3], pp. 254-274.
- Zhongdang P. and Kosicki G.M. 1993, *Framing Analysis: An Approach to News Discourse*, in "Political Communication" 10, pp. 55-75.

Ziem A. 2014, *Frames of Understanding in Text and Discourse*, John Benjamins, Amsterdam.

## Online references

*Early English Books On-line (EEBO)* <http://eebo.chadwyck.com>

*Oxford English Dictionary (OED online)* <http://www.oed.com>

*The Medici Archive Project (MIA)* <https://mia.medici.org/Mia/>