



The process of island abandonment by humans in recent European history

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Abstract

Humans have inhabited islands since prehistoric times, often cyclically occupying and abandoning them. While these patterns are increasingly well-explored archaeologically, recent temporal changes in the island biogeography of humans are still poorly understood, with consequences for the social, economic and conservation planning of islands. Here, I asked: (1) at what rates European islands were abandoned in the last 150 years, (2) whether the process of abandonment is scale-dependent and, if so, whether small islands were abandoned more consistently than large islands and (3) whether abandonment rates and the shift from smaller to larger islands increased latitudinally? I collected data for 1850 (± 20) and current human inhabitation across seven archipelagos and 234 islands across Europe. I used regression techniques (i.e. logistic and linear) to explore the process of island abandonment in recent human history. Across all islands, 29.5% have been abandoned in the last 150 years. The process of abandonment is scale-dependent and smaller islands were abandoned more consistently than larger islands. Rates of abandonment increased latitudinally and were higher in northern Europe compared to southern Europe. However, scale-dependent processes were similar across the latitudinal gradient. In conclusion, a large number of islands were abandoned in Europe in the last 150 years, more so if small in size and at higher latitudes. These results bridge with previous archaeological work and have implications across several disciplines, including the sustainability of small island economies, climate adaptation strategies and conservation planning.

Highlights

- Of 234 European islands, almost a third were abandoned in the last 150 years, with rates ranging from 3.33% to 56% depending on the archipelago.

- Small islands were abandoned more consistently, likely due to the limited amount of resources and space available.
- Northern European islands were abandoned more consistently, likely due to harsher climatic conditions.
- Despite general trends, idiosyncratic differences among archipelagos exist because of varying historical, social, and political circumstances.
- Future trends might differ due to shifts in viable economic activities (e.g. tourism), technological advancements, and the impact of climate change.

Keywords

Europe, human biogeography, human ecology, island abandonment, island biogeography, metapopulation, population dynamics, species distributions

Introduction

Humans have inhabited islands since prehistoric times. Island occupancy has often been temporary, and many islands were cyclically occupied and subsequently abandoned (Fitzhugh et al. 2016; Braje et al. 2017; Cherry and Leppard 2018; Plekhov et al. 2021). Although patterns of island inhabitation through time are increasingly well-documented from both archaeological and palaeoenvironmental perspectives (Fitzhugh et al. 2016; Gjesfjeld et al. 2019; Plekhov et al. 2021; Rull 2023), recent trends in the human inhabitation of islands are still largely unexplored (Norder et al. 2017, 2020; Mologni and Burns 2023).

One of the most pivotal and momentous events in recent human history was the Industrial Revolution (Steffen et al. 2011). The changes that followed were profound and involved every aspect of human life. From a demographic perspective, the Industrial Revolution caused large

emigration fluxes from the countryside to main urban centres, a process known as urbanisation (Steffen et al. 2011). Islands are particularly prone to similar migration processes (MacArthur and Wilson 1967). However, the current evidence suggests both island human population growth and decline in the past two centuries (Coull 1967; Norder et al. 2020). On the other hand, island abandonment appeared to have happened whether an archipelago's overall population increased or decreased (Coull 2003). Although rural mainland depopulation during the Industrial Revolution has been largely explored (Saville 1998; Collantes and Pinilla 2011; Johnson and Lichter 2019), a comprehensive, quantitative test of island abandonment is still lacking.

Many processes in ecology and biogeography are scale-dependent (Wiens 1989; Fridley et al. 2007; Chase et al. 2018). The relationship between patch size and the number of species and individuals is no exception (Arrhenius 1921; MacArthur and Wilson 1967; Hanski 1999). A greater number of species and individuals live on islands with larger surfaces (Arrhenius 1921; MacArthur and Wilson 1967). Similarly, humans live more consistently on large islands, both currently and historically (Plekhev et al. 2021; Mologni and Burns 2023). Small islands have fewer resources and space available and, thus, can house fewer individuals (Turner and Tjørve 2005). Given these circumstances, the process of abandonment might be strongly structured geographically, with small islands being abandoned more consistently than large islands.

Climatic conditions deteriorate moving towards the poles. As temperatures and ecological productivity decline latitudinally, so does biological diversity (Hillebrand 2004; Gillman et al. 2015). Similarly, cultural diversity (i.e. the number of cultures, where each culture has a distinct set of traits from the others) increases toward the Equator (Mace and Pagel 1995; Nettle 1998; Collard and Foley 2002; Moore et al. 2002). Amongst the factors regulating human inhabitation, including on islands, are climatic and environmental conditions (Fitzhugh et al. 2016; Plekhev et al. 2021). Mediterranean islands were often abandoned due to a scarcity of fresh water and more enduring inhabitation only occurred following the introduction of agricultural practices and sedentism (Cherry and Leppard 2018; Plekhev et al. 2021). Human permanence on the high-latitude Kuril Islands was likely regulated by fluctuations in temperature, in addition to political shifts (Fitzhugh et al. 2016; Gjesfjeld et al. 2019). If climatic conditions can regulate human permanence on islands, then island abandonment can be expected to increase latitudinally. Additionally, harsher climatic conditions can compound with the already limited space and resources of small islands (Turner and Tjørve 2005), further promoting emigration rates and, ultimately, island abandonment.

Here, I aim to quantify patterns of island abandonment on European islands in the last 150 years and assess their relationship with the geography of islands. I collected data for 1850 (± 20 years) and current human inhabitation across seven archipelagos and 234 islands. Then, I used regression techniques to explore human distributional patterns and their changes through time. I asked:

(1) at what rates European islands were abandoned in the last 150 years, (2) whether the process of abandonment is scale-dependent and, if so, whether small islands were abandoned more consistently than large islands and (3) whether abandonment rates and the shift from smaller to larger islands increased latitudinally?

Methods

Data collection

I collected data for 234 islands amongst seven archipelagos across Europe for both 1850 and current human inhabitation. I chose the date of 1850 because, while the Industrial Revolution began in the 18th century in the UK, it was only in the 19th century that other European countries began to industrialise. I selected archipelagos to cover a representative sample of European islands (i.e. Channel Islands, West Iceland, West Ireland, Quarnero/Kvarner, Shetland, Maddalena Islands; Fig. 1, Table 1). I have also included all Macaronesian islands, Cape Verde excluded (i.e. Azores, Madeira and Canary Islands; Fig. 1, Table 1). Islands in the Quarnero/Kvarner do not include the Krk, which is the largest island in the area and connected to the mainland. The Maddalena Islands include several other islands extending south to Tavolara and Molara, while the Macaronesian Islands include also the Desertas and Savage (Selvagens) Islands.

In many cases, however, historical data were either unavailable or inaccessible due to both language and technological barriers. For instance, many islands in the Ionian and Aegean seas either lack sufficient information for historical inhabitation or, when historical records are digitised and available, the primary source is in the original language, hence inaccessible to the author. Records of is-

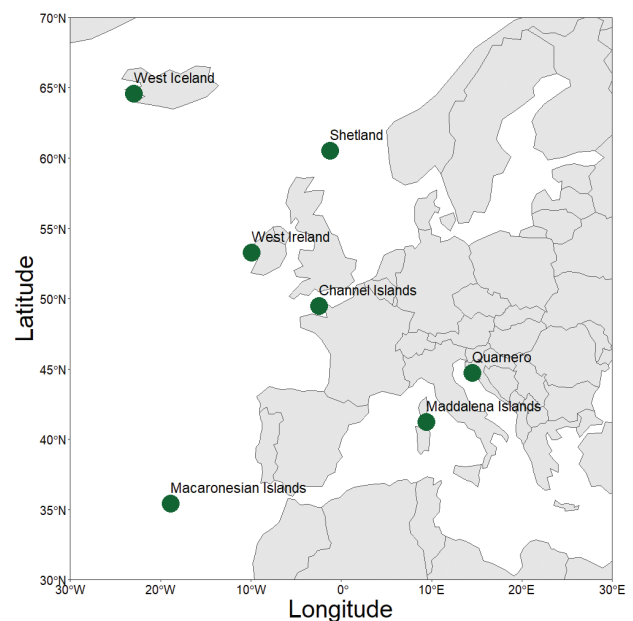


Figure 1. Map showing the location of the seven European archipelagos included in this study.

Table 1. List of European archipelagos included in this study. Columns are the number of islands per archipelago, their average size, the percentage of abandoned islands since 1850 (± 20) and the latitude of the archipelago.

Archipelago	Number of islands	Average size (km ²)	Size range (km ²)	Abandoned islands since 1850 (%)	Latitude(°)
Channel Islands	40	5.01	0.001–118.2	32.5	49.50
West Iceland	25	1.20	0.025–14.3	56.0	64.60
West Ireland	41	3.02	0.009–30.9	39.0	53.26
Quarnero/Kvarner	31	16.88	0.004–405.7	29.0	44.72
Macaronesia (excl. Cape Verde)	30	354.03	0.08–2034.4	3.33	35.43
Maddalena	33	1.83	0.002–20.2	15.15	41.22
Shetland	34	43.44	0.49–962.2	32.4	60.53
Total	234	55.71	0.001–2034.4	29.5	49.89

land inhabitation in Denmark are available and accessible only since the 20th century. Additionally, in some cases, the available data were not suitable due to differences in the administrative structure. For example, data for the Åland Islands are available by parishes, which often comprise more than one island. All these limitations restricted the suitable archipelagos to the current selection.

Data for human inhabitation were collected from various sources (Table 2). For 1850, I obtained data from historical records (e.g. censuses) and recent books and peer-reviewed publications. Data were included within 20 years from 1850 (1830–1860, Table 2). For current human inhabitation, I selected the most recent data available, whether from a census or other published sources (Table 2) and inspected the islands in Google Earth Pro 7.3.6 (Google 2023). Unfortunately, population size was not always available, especially for historical records. Therefore, I quantified

human inhabitation using presence/absence data. Island area was extracted from available sources (Table 2) or manually calculated using Google Earth as the total surface of an island (km²) (Google 2023). Latitude was calculated as the average latitude of all islands in each archipelago.

Statistical analyses

To assess rates of island abandonment, I first calculated the number of islands inhabited in 1850 (± 20 years) and currently and then the difference between the two values, which represents the total number of islands abandoned over time. Then, I calculated the percentage of islands (a) currently inhabited, (b) abandoned since 1850 and (c) uninhabited in both time periods. This calculation was conducted for all islands and each archipelago separately.

Table 2. Sources accessed for island area and inhabitation in 1850 (± 20) and currently. When unavailable, island area was calculated using Google Earth. Sources for Macaronesian islands are divided into Azores, Madeira and Canary Islands.

Archipelago	1850	Current	Area
Channel Islands	https://www.theislandwiki.org/ ; gov.gg/population; http://www.alderney.gov.gg/data	gov.gg/population; http://www.alderney.gov.gg/data	Mologni and Burns (2023)
West Iceland	https://nat.is/	https://nat.is/	Manually digitised
West Ireland	https://data.cso.ie/ ; Great Britain, Parliament, House of Commons (1850)	https://data.cso.ie/	https://www.townlands.ie/
Quarnero/Kvarner	Perselli (1993)	Croatian Bureau of Statistics (2018)	Leder et al. (2004)
Azores (Macaronesian Islands)	Medeiros da Silva (2014); srea.azores.gov.pt	Du Cane Godman (1870); Medeiros da Silva (2014);	Silva et al. (2000); Medeiros da Silva (2014)
Madeira (Macaronesian Islands)	Solange Sousa Pereira (2021); Sim-Sim et al. (2010); Ritsema (2010); White (1851); Biddle (1896); https://www.ibiblio.org/lighthouse/mdr.htm	Neves (1998); Sim-Sim et al. (2010); Lourenço (2015); https://estatistica.madeira.gov.pt/en/download-now-3/social-gb/popcondsoc-gb/demografia-gb/demografia-quadros-gb/category/258-tables.html	Pereira (2021); Sim-Sim et al. (2010); Norder et al. (2020)
Canary Islands (Macaronesian Islands)	Pegot-Ogier (1871); https://www.ibiblio.org/lighthouse/cnr.htm	http://www.gobiernodecanarias.org/istac/jaxi-istac/menu.do?uripub=urn:uuid:b080ccd9-f400-4781-877a-b8a6294c2596	http://www.gobiernodecanarias.org/istac/jaxi-istac/menu.do?uripub=urn:uuid:fb0bdc8-cacb-43b8-a5cb-a93f745dcff6
Maddalena & Tavolara Islands	Bocchieri (1995); Callioni (2009); https://www.ibiblio.org/lighthouse/sarn.htm	Klieger (2012); Navone A. et al. (2014); https://whc.unesco.org/en/tentativelists/2028/	Bocchieri (1995); Arrigoni and Bocchieri (1995)
Shetland	https://www.nrscotland.gov.uk/*	https://www.shetland.gov.uk/	Mologni and Burns (2023)

* Emailed directly.

To assess whether small islands were abandoned more consistently than large islands, I used logistic regressions. I set as a dependent variable human inhabitation (presence/absence) and, as independent variables, the size of each island and time (1850 vs. current human inhabitation). I ran this model for all islands, and then for each archipelago separately.

To assess whether rates of abandonment increased latitudinally, I used linear regression. The dependent variable was the number of islands abandoned through time and the independent variable was the latitude of each archipelago. To assess whether shifts from smaller to larger islands increase latitudinally, I extracted from the logistic regression the size of islands at the inflection point for both 1850 (± 20) and current human inhabitation for each archipelago. Then, I calculated the ratio between the current and the 1850 (± 20) island size at the inflection point. This ratio was used as a dependent variable in a linear model and regressed against latitude.

Islands without humans or other species contain invaluable information that can significantly affect results (Wang et al. 2016). As such, islands uninhabited in both time periods were included at all stages. All analyses were conducted in R (R Core Team 2023).

Results

Across all islands, 29.5% have been abandoned since 1850 (± 20), while 32.1% are still inhabited (Fig. 2, Table 1). Meanwhile, 38.4% of the islands were uninhabited in



Figure 2. Percentage of islands abandoned since 1850 (± 20) on 234 islands across seven European archipelagos. In green are islands inhabited in both periods (Consistently inhabited), in red are islands abandoned since 1850 (Abandoned) and in grey are islands uninhabited in both periods (Consistently uninhabited). Archipelagos are the Channel Islands (CHA), West Iceland (ICE), West Ireland (IRE), Quarnero/Kvarner (QUA), Macaronesia (MAC), Maddalena (MAD) and Shetland. The total (TOT) incorporates all 234 islands.

both time periods. Rates of abandonment ranged from 3.33% (Macaronesian Islands) to 56% (West Iceland, Fig. 2, Table 1). Logistic regressions showed that smaller islands were abandoned more consistently for all islands and each archipelago separately, except for Macaronesian Islands (Fig. 3, Table 3). Rates of abandonment increased latitudinally (Fig. 4). Abandonment rates were higher in northern Europe compared to southern Europe. Latitude explained 81% of the variation in abandonment rates. A positive trend emerged also between inflection point ratios and latitude, albeit non-significant (Fig. 5). Latitude explained 44% of the variation between inflection point ratios and latitude.

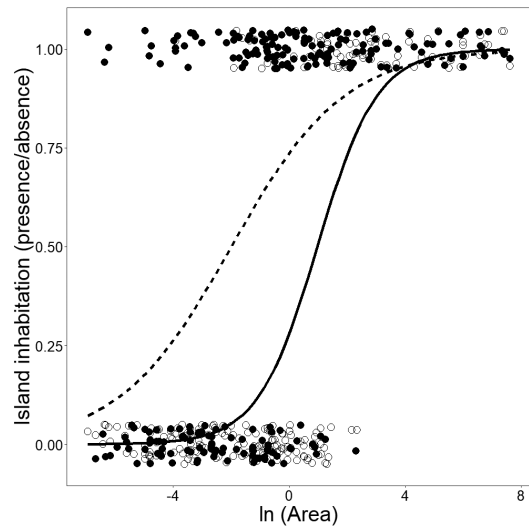


Figure 3. Relationship between 1850 (± 20) and current human inhabitation (presence/absence) and island area (km^2 , log-transformed). Solid points and line indicate current human presence ($n = 1$) or absence ($n = 0$), while empty points and the dashed line indicate 1850 human presence ($n = 1$) or absence ($n = 0$). Data points were jittered to enhance plot readability, but only vertically to preserve area values. A statistically significant effect was detected for both island area (estimate = 0.67 ± 0.07 , z-value = 10.32, p-value < 0.001) and time (estimate = 2.08 ± 0.28 , z-value = 7.43, p-value < 0.001). All islands were analysed, including those uninhabited in both time periods.

Table 3. Relationships between human inhabitation and area and time (1850 and current inhabitation) for each archipelago separately and all islands. Columns are archipelago names, z-values for the effect of area (km^2 , log-transformed) and time. Significant results are indicated with a star (p-value > 0.05) and 1850 (± 20) and current inflection points in km^2 extracted from logistic regressions.

Archipelago	Area	Time	Inflection point (km^2)	
			1850	Current
Channel Islands	3.82*	3.27*	0.02	0.17
West Iceland	2.42*	3.51*	0.09	8.15
West Ireland	3.27*	3.74*	0.03	1.01
Quarnero/Kvarner	3.77*	2.78*	0.21	3.52
Macaronesia	3.47*	0.51	3.20	6.23
Shetland	3.62*	3.09*	0.74	3.04
Maddalena	2.25*	2.23*	1.28	5.01
All Islands	10.32*	7.43*	0.14	2.64

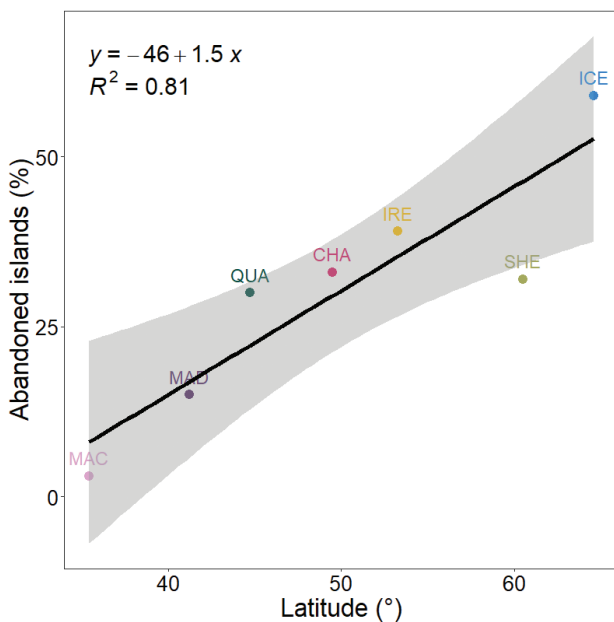


Figure 4. Relationship between the percentage of abandoned islands by archipelago and latitude. On the top left are the equation and variation explained. Archipelagos are the Channel Islands (CHA), West Iceland (ICE), West Ireland (IRE), Quarnero/Kvarner (QUA), Macaronesia (MAC), Maddalena (MAD) and Shetland. The total (TOT) incorporates all 234 islands.

Discussion

In this study, I explored the process of island abandonment on 234 European islands in the past 150 years. Results showed that humans abandoned almost a third of all investigated islands since 1850 (± 20 years). Population shifts from rural to urban areas were a key component of the Industrial Revolution (Steffen et al. 2011). Islands were no exception. Due to their peripheral position, both geographically and politically, many islands suffered drastic depopulation and emigration towards the mainland or main urban areas within the same archipelago (Coull 2003). Additionally, due to a lack of connectivity to the mainland, agriculture was less economically viable and the introduction of new technologies was costlier, likely increasing emigration rates. Lack of connectivity became more pronounced in the last 150 years with the development of infrastructures such as sealed road systems, which superseded transportation by sea (e.g. Shetland: Coull (2003)).

The process of island abandonment on European islands was scale-dependent and small islands were abandoned more consistently than large islands. Many processes in ecology are scale-dependent and human distributions on islands are no exception. Islands have a finite amount of resources, habitats and space (Turner and Tjørve 2005). Lack of resources such as freshwater, fuel sources and fertile soil limits human permanence on small islands (Coull 2003; Cherry and Leppard 2018). Fewer habitats also reduce the type of resources available. Finally, small islands can only host small populations due to their physical limitations (MacArthur and Wilson

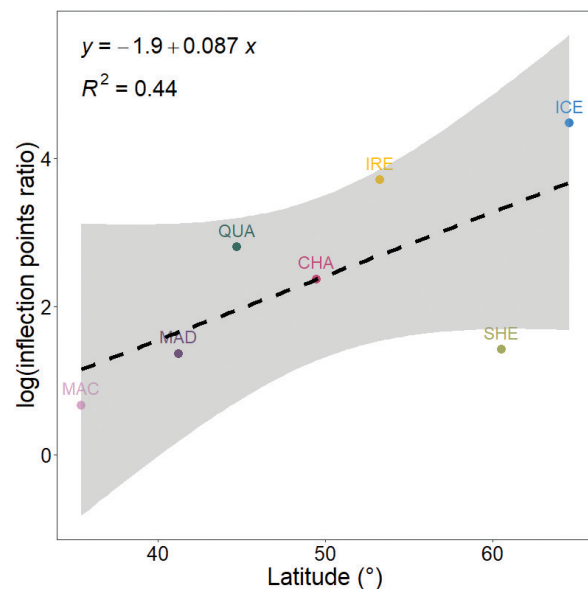


Figure 5. Relationship between the ratio of 1850 (± 20) and current inflection points extracted from logistic models by archipelago and latitude. On the top left are the equation and variation explained. Archipelagos are the Channel Islands (CHA), West Iceland (ICE), West Ireland (IRE), Quarnero/Kvarner (QUA), Macaronesia (MAC), Maddalena (MAD) and Shetland. The total (TOT) incorporates all 234 islands.

1967). As a consequence, life on small islands is generally more precarious (Coull 2003; Kos et al. 2021). This pattern is consistent with island biogeography and metapopulation theories, which posit that the likelihood of population extinction (or emigration) negatively correlates with patch size (MacArthur and Wilson 1967; Hanski 1999).

Rates of abandonment increased latitudinally. Islands at higher latitudes experience harsher climates since temperatures decline towards the poles. Additionally, most archipelagos in Atlantic Europe (i.e. the Shetland, Iceland and Ireland) are also exposed to strong ocean currents and winds, such as the North Atlantic Drift. In particular, I included islands west of Iceland and Ireland, which are particularly impacted by this type of disturbance. Conversely, the Channel Islands are more sheltered from the effect of ocean-borne disturbances and more so are Mediterranean islands. Incorporating ocean-borne disturbances will shed light on the effect of currents and winds on patterns of human island inhabitation.

The shift from smaller to larger islands increased latitudinally, but not significantly so. A positive trend suggests that scale-dependent processes are mediated by latitude. Harsher climatic conditions might increase minimum area requirements (i.e. the effects of island area not mediated through other island properties, Turner and Tjørve 2005) at higher latitudes. Additionally, climatic conditions can combine with limited resources, habitat and space, increasing the size of abandoned islands at higher compared to lower latitudes. Then, higher extinction or emigration rates can occur. However, the trend was not significant and perhaps other factors are at play, such as cultural and political changes.

The climate, though, changes over time and future trends might differ. In particular, one consequence of the Industrial Revolution is a global increase in temperatures, known as global warming. Since 1850, temperatures have risen by approximately one degree Celsius and the past 10 years were the warmest historically recorded (i.e. 2014–2023, National Oceanic and Atmospheric Administration (2024)). Migrations due to global warming are becoming increasingly common (Bryne 2018). Likewise, European islands at southern latitudes might gradually become more inhospitable, prompting emigration towards cooler areas. Conversely, islands at higher latitudes might become comparably more desirable, attracting immigrants or retaining their population.

Despite general trends, idiosyncratic differences amongst archipelagos exist (Mologni and Burns 2023). Humans lived on larger islands both in 1850 and currently on Macaronesian Islands compared to other archipelagos. This is simply a reflection of the average size of the Macaronesian Islands, the largest across all archipelagos investigated (see Table 3). Conversely, humans lived on smaller islands both in the past and in the present on the Channel Islands compared to other archipelagos (see Table 3). This archipelago is located between England and France and it was long disputed between the two countries (Beswick 2020). After Napoleon's time, several fortresses were built on the small islets surrounding the main islands (Partridge 1986). Additionally, some very small rocky islands, such as the *Écréhous*, were used both for smuggling and fishing (Radford 2019). Social and economic crises also played a role. An epidemic of the most common crop in Ireland in the 19th century – potatoes – caused one of the worst famines in the history of the country. As a consequence, the population of Ireland declined by up to a third in a matter of years (Guinnane 1997). Several islands in this database saw a sharp decline in population after the Great Famine (e.g. Inishark, Mason Island, Island Eddy and Inchamakinna). Another example is the phylloxera epidemic, which affected wine-producing regions in Europe in the late 19th century and might have determined similar emigration patterns in the Quarnero/Kvarner. Similarly, the multi-decade fisheries collapse in the mid-twentieth century in the North Atlantic contributed to depopulation in that region (Hamilton 2007). Many islands in West Iceland were abandoned in this period (e.g. Bildsey, Fagurey, Hergilsey, Hoskuldsey). Emigration and abandonment of these islands, however, did not mean necessarily immigration to the mainland. Longer-scale processes were also taking place, such as long-term migrations from Europe to America.

Archaeological evidence indicates that islands were generally occupied in favourable periods and abandoned in unfavourable ones (Plekhov et al. 2021). Results suggest that similar distributional shifts in the human inhabitation of islands happened also recently and are possibly still ongoing. For instance, on some Irish islands, the population recovered after declining during the Great Famine, only to decline again until abandonment (e.g. Inishark). Other islands were abandoned only temporarily during natural di-

sasters (e.g. a volcanic eruption in Heimaey). Additionally, while approximately a third of the islands were abandoned in Europe in the last 150 years, future trends might be different. In other parts of the world, small, artificial islands are being built (e.g. Seychelles, Kos-Stanišić et al. (2021)). This is due to new viable economic activities, such as tourism (Croes 2013). Additionally, new technologies now allow for greater self-sufficiency (e.g. remote work, the exploitation of renewable energy sources). As such, many islands in the future might repopulate. However, if current activities are not dependent on the amount of land available as in agricultural economies, then repopulation might be greater on islands already inhabited and with larger urban areas. Urban areas concentrate resources and services and might attract more immigrants than small, uninhabited islands. One example is Shetland. The population on the main island almost halved from the 1850s to the 1970s. Since then, it consistently increased to almost 1850s levels, likely due to the discovery of offshore oil reserves. Conversely, abandoned smaller islands were not repopulated (e.g. Hascosay). Finally, through time, many small islands became conservation areas (see Aotearoa New Zealand, Towns and Ballantine 1993) or UNESCO World Heritage Sites (e.g. Delos, Hirta, Skellig Michael). While these islands will now attract tourists, they are unlikely to be settled in the near future.

In this study, I investigated trends of island abandonment on European islands. However, island abandonment is unlikely to be restricted to this region. For instance, many islands worldwide have been abandoned, especially since European arrival (Bowen 2009; Bellingham et al. 2010; Evers and Kooy 2011). Similarly, it is likely that latitudinal trends apply also elsewhere in the world. However, processes underpinning these trends might differ from Europe. In many cases, populations were decimated by epidemics (e.g. the Gulf of California, Bowen (2009)) or forcibly moved (e.g. The Chagos Islands, Evers and Kooy (2011)) during colonial times. Colonial histories might also promote different trends and more islands might be inhabited today than they were in 1850. A global assessment of recent population changes in island inhabitation, accounting for historical contingencies, is thus needed.

While in this study I was able to collect data for 234 islands, only seven archipelagos were included. Data collection was limited by data availability, especially for historical data. Historical sources are often not digitised and physical copies are difficult to access across countries. Many sources were in languages other than English or Italian - the languages spoken by the author - again reducing accessibility to original sources. Additionally, this introduced a language bias in the data collected (Bayliss and Beyer 2015). Three archipelagos use English as their official language (Shetland, Channel Islands, West Ireland) and two are currently, or were historically, part of Italy (Maddalena Archipelago and Quarnero/Kvarner). Only two archipelagos are part of countries where neither English nor Italian are or were dominant languages.

Due to the lack of historical data, only two time periods could be included in this study, increasing the chances of immigration-emigration events going undetected and limiting conclusions to this specific temporal window. One such example is Heimaey, which was temporarily abandoned during a volcanic eruption in 1973. The scarcity of historical data also determined the choice of using presence/absence data rather than population sizes, which further limited the scope of the analyses. For instance, having only two data points in time and presence/absence data limits a direct assessment of the impact of industrialisation and urbanisation on the inhabitation of European islands. Although these factors are likely significant contributors to island depopulation, their specific roles remain speculative at this stage.

In this study, I investigated rates of abandonment across 234 European islands. Almost a third of all the islands investigated were abandoned since 1850 (± 20), especially when small in size. These trends varied latitudinally and were stronger in northern Europe. These results suggest that the human inhabitation of islands is strongly structured geographically. This study builds upon prior work on current human distributions on islands and bridges with archaeological studies in the field of human island biogeography (Fitzhugh et al. 2016; Cherry and Leppard 2018; Gjesfjeld et al. 2019; Plekhov et al. 2021; Mogni and Burns 2023). Given the fragile economy of many island countries worldwide and the many small islands that, over time, became conservation areas, studies of modern human distributions on islands can be useful across a variety of disciplines.

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Data accessibility statement

Data are shared as supplementary material.

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Supplementary materials

Supplementary material 1

Dataset (.xlsx): this file contains the dataset used for all analyses presented in the study

Link: <https://doi.org/10.21425/fob.17.132245.suppl1>

Supplementary material 2

Code (.txt): This file contains the script used to perform the analyses outlined in the study

Link: <https://doi.org/10.21425/fob.17.132245.suppl2>