

Oard's Ice Age and Settlement of Northern Europe on Masoretic and Septuagint Timelines

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Abstract

Oard (1979, 1984a, 1984b, 1985, 1990, 2003, 2004, 2005, 2016, 2017, 2024) has written extensively about past glaciation of the earth. He rejects the Astronomical Hypothesis that implies 20 to 30 ice ages have covered the earth over the past 2.6 million years, the so-called Quaternary Period. His model posits a single 700-year period of glaciation that was caused by the Genesis Flood. Oard's model is stood alongside the Flood, the Dispersion, and traditional settlement dates of northern Europe to see if all data are compatible within those events and a biblical timeline based on either the Masoretic Text or the old Greek translation (called the Septuagint), which respectively delineate the youngest and oldest earth possible under biblical timelines. The implications of the Oard Ice Age model regarding the founding of Trier, Germany, and the colonization of Ireland as proposed by Griffith and White (2022b) are examined. The conclusion is that accepted historical glaciation extents, Oard's Ice Age model as he parameterized it, northern Europe settlement traditions, and the Masoretic biblical timeline are not consistent. Putting the Ice Age on the Septuagint timeline removes some of the conflicts but also raises other questions regarding the timing of settlement for both the Americas and northern Europe and requires an alternative explanation of flooding c. 2350bc.

Keywords: Chronology, Deluge, Dispersion, Europe, Flood, geology, Germany, glaciation, Ice Age, Ireland, Neanderthal, Masoretic Text, Septuagint, settlement, Trier

Introduction

Most secular geologists¹ believe that there were 20 to 30 ice ages on the earth over the last 2.6 million years (or more; see the notes regarding ice cores and seabed cores) the so-called Quaternary Period. Based on variations in the earth's orbit that appear to have a period of about 100,000 years, they hypothesize glacial ages on the same rhythm (see for example, Hayes et al. 1976; Muller and MacDonald 1997; 2000). This is called the Astronomical Hypothesis, which Oard (2007) has disputed. In his initial publication, Oard (1979) repropoed (see Clark 1946) that there was one Ice Age caused by the cataclysmic disruptions of the Flood.

Creationist consensus is that any evidence of a pre-Flood ice age would not have survived the catastrophic upheavals of the Flood, so the existing evidence of extensive glaciation must be from post-Flood events (Oard 1979; 1990; 2024; Whitcomb and Morris 1961; Worraker 2020, 85), although some posit a pre-Flood ice age (for example, Jorgensen 1994). From that starting point, our concern is

whether or not all of these are consistent: accepted historical glacial extents, (but not conventional timelines), Oard's model as he parameterized it, settlement traditions for northern Europe, and the Masoretic biblical timeline. Note that the issue of the Ice Age timing is addressed from a slightly different perspective by Snelling and Matthews (2013), which will be discussed briefly as well.

Oard has revised his model modestly over the years since he first proposed. He initially proposed a 600-year period divided into a 500-year buildup followed by a 100-year meltdown (Oard 1979). In his current model, his estimates for duration include a total of 700 years (Oard 1990; 2024), a 500-year buildup followed by a 200-year meltdown. He proposes that the meltdown of the edges was fast, as little as 70 years.² We will use his current model here.

Placing Oard's relative timeline for post-Flood glaciation alongside an absolute timeline of Genesis events ought to be easy except for the fact that we do not have a single biblical timeline to which everyone agrees. This controversy is discussed briefly below.

¹A few contemporaries: Armstrong, Hopcroft, and Valdes 2019; Barr and Clark 2011; Barrell et al. 2013; Batchelor et al. 2019; Becker et al. 2016; 2017; Crowley 1995; Florineth 1998; French 2021; Hays, Imbrie, and Shackleton 1976; Kelly, Buoncristiani, and Schlüchter 2004; Kirschner et al. 2022; Kuhle 2004; Mangerud et al. 2004; Marshall 2010; Mills et al. 2017; Muller and Gordon 1997; 2000; Oppenheimer 1998; Patton et al. 2017; Seltzer et al. 2021; Stroeven et al. 2016; Teirney et al. 2020; Waitt 1985; Weaver et al. 2003.

² While vacationing in Alaska near Seward in 2023, I witnessed the extent of recession of the Exit Glacier in Kenai Fjords National Park as documented by National Park Service (NPS) scientists. This glacier is being posed as the "poster child" for anthropogenic climate change at the Park. Based on the age of woody growth below the glacier ("tree rings"), NPS scientists estimate the year in which new growth began on the land as the ice receded. Based on these dates, they have estimated the extent of the Glacier going back to the early 1800s. A map on the National Park Service website (National Park Service 2024) shows that the Glacier has receded more than 1,000 m since 1950. One could ask if this is because of anthropogenic climate change, or because of the natural decay of glaciers following the peak after the flood, or some other dynamic.

The timelines based on the Masoretic Text (MT) and the Old Greek translation of the Scriptures (called the Septuagint, or LXX) have been chosen for comparison. The timing of the Dispersion on each of these timelines is not textually bound by Scripture and is subject to considerable scholarly disagreement, so certain assumptions are made for analysis. The implications of the Oard Ice Age model are examined against the timing of the founding of Trier, Germany and the colonization of Ireland according to the dates of these events proposed by Griffith and White (2022b, Durations 15 and 16).³ Finally, some variations in the Oard model on the LXX timeline are considered which provoke some challenging speculations regarding post-Flood settlement of the Americas and Europe, and flood waters c. 2350 BC.

Background

Competing biblical witnesses

The timeline of Oard's model is relative in the sense that it is tied to the end of the Flood, the Flood being the cause of the Ice Age in his model. We do not have complete freedom in placing Oard's Ice Age just anywhere in time because the time of the Flood is attested in Scripture. However, even in God's Word, ambiguity creeps in, and multiple readings of Genesis chapters 5 and 11 have been transmitted to the present, leading to multiple Genesis timelines.

It comes as a surprise to many Christians that most translators of the Bible consider multiple manuscript sources when attempting to determine just what they should translate. That is, they must decide what ancient language sources (in Hebrew, Aramaic, and Greek) actually form the Scriptures. For the Old Testament, most translators believe that the Masoretic Text, a consolidated set of manuscripts in Hebrew and Aramaic, is the best overall representation of what God actually spoke through His servants the prophets when they produced the Old Testament Scriptures. This text was collected and standardized by a group of Jewish scribes called

the Masoretes. The standardization of this text started near the time of Christ and was codified in the eighth through tenth centuries. The Masoretes standardized the text, added margin notes to assist with interpretation, and added vowels to what was initially a consonantal text. This standardized text has been carefully transmitted with constant attention from the Masoretes and their successors.⁴

However, manuscripts from other sources do exist, and at times they conflict with the Masoretic Text. Some of those other sources include the Old Greek translation from the Hebrew (often called the Septuagint, abbreviated LXX), the Samaritan Pentateuch, the Aramaic Peshitta, the Latin Vulgate, the Dead Sea scrolls, and the Judean Desert scrolls. The *Book of Jubilees* is a deuterocanonical book that also sets forth a creation timeline. Translators will also consider *targumim*, interpretations of the Scriptures historically used in teaching, such as in the *shul* (synagogue).⁵ When a conflict arises between the MT and another source, translators use a set of disciplines called *textual criticism* to decide which version (reading) is probably the most accurate rendition of what God spoke. In some cases, translators may decide that a text other than the MT seems more appropriate, and they will translate that text instead of the MT. A good translation, regardless of the decision made on a conflicting reading, will document the decision in what is called a text note and inform the reader of what the other possible readings are and from what sources they come.

One important alternative textual tradition for the Old Testament is the Old Greek translation made by certain Jewish scribes in the third to second centuries BC. This collection is called the Septuagint (from the Latin for 70) for the possible translation of the Pentateuch by 70 (or 72) scribes in Alexandria in the third century BC. This text is considered important because it seems to have been a version of Scripture to which both Jesus and New Testament writers were familiar and was used extensively

³ Settlement of most other parts of the world during the Ice Age is not treated in this paper, partly because explicit traditions of settlement tied to specific times (as opposed to paleontological inference) are sparse. One exception treated by Griffith and White (2022b, Duration 17) is Peru. See the main body of the paper for a brief discussion of the settlement of the Americas.

⁴ The original authorized text supporting the Masoretic Text was contained in a document dating from c. AD 920 that was sanctioned by Jewish authorities at the time. This text became known as the Aleppo Codex because it was housed in a synagogue in Aleppo, Syria. The document was seriously damaged by a fire in the synagogue in 1947 as a result of war breaking out over the coming establishment of the modern state of Israel in 1948. A similar document originating in 1008 that was not seen by the Jewish authorities that sanctioned the Aleppo Codex has been stored in Leningrad since 1863. Hence, it is called the Leningrad Codex. The Aleppo Codex, as known from its remaining fragments and copies made before the fire, is still the authoritative text of Scripture for Jews. After the fire, the Leningrad Codex attained its position as the oldest complete manuscript of the Hebrew Scriptures in existence.

⁵ By the end of the intertestamental period, most ordinary Jews no longer could read or understand spoken Hebrew. When the Scriptures were read in the synagogue, the lector would read several verses in Hebrew at a time, which then had to be translated into another language, such as Aramaic, so that the worshippers could follow the reading. Over time, synagogue authorities collected and standardized these translations, which are called *targumim* (plural of *targum*). Some that were collected were not accurate translations but were worded to convey the common meaning of the Hebrew text for instructional purposes. Therefore, *targumim* are rarely depended on to derive what the original Hebrew text might have read except to say that if the meaning reflected in the *targum* is far off from the received Hebrew text, some doubt may be raised as to the accuracy of the Hebrew text. In that case, an alternative source text may or may not be favored.

by the Roman Church up to the Reformation. This version is the official version of the Old Testament for most of the Orthodox community worldwide.

The LXX is not a cohesive unity but a collection of Greek translations made during the Second Temple period. At the textual level, the LXX differs from the MT in substantial ways, but to our point, it differs significantly in Genesis chapters 5 and 11, which contain the genealogies of the early patriarchs. It is from these genealogies that certain primordial dates can be derived, such as the date of Creation and the date of the Flood. As a result of differences in the genealogies, the LXX claims the earth is 1,550 years older than the MT, and the Flood occurs at an earlier time in the LXX, as well.

Of the competing readings, we will consider the Hebrew Masoretic Text and the Old Greek translation (Septuagint). These two traditions pose the youngest (MT) and the oldest (LXX) earth respectively that the Bible allows without modification (some people have tried to lengthen the age of the earth by inserting additional hypothetical patriarchs into Genesis 5 and 11.) Computed dates for the Flood under the MT and LXX are taken as givens for analysis as are the respective computed dates of Peleg's lifetime. The date of the Dispersion is acknowledged as biblically indeterminate but for analysis is estimated based on recent scholarly opinion for the MT and chosen somewhat arbitrarily for the LXX consistent with biblical warrant.

The use of the Septuagint timeline is somewhat controversial in that many do not accept its possible inspired status. Others ardently defend the LXX. This is a debate that is not going to be pursued (much less settled) here. The *provenance* of the MT and LXX texts and the major points of argument as to which contains the legitimate readings of Genesis 5 and 11 (in addition to a host of other textual differences) are summarized elsewhere.⁶ Within various accessible sources, the calculations of the dates of Creation, the Flood, and the birth and death of Peleg can be found as well as discussions of the relative merits of and differences between the texts.

Masoretic Text

The MT is favored by Eames (2023), Jones (1993), Oard (1979, 1990, 2004, 2024), Osgood (2023), Snelling and Matthews (2013), Ussher (1650) and many others. Some recent work favoring the MT is a series of papers by Griffith and White (2022a, 2022b, 2023a, 2023b, 2023c). They defend their choice of the MT in Griffith and White (2022a). We will use Griffith and White's timeline which, while not universally

accepted, is close to most other estimates based on the MT and is synchronized with their identified settlement dates for northern Europe. Griffin and White (2022b, Durations 15 and 16) identify the settlement dates for Trier, Germany, and Ireland as 2053BC and 2035BC respectively. The MT timeline sets 4004BC for the date of Creation, 2348/7BC as the time of the Flood, and 2247–2008BC as the lifetime of Peleg.

There is no uniformity of opinion on the date of the Dispersion among these authors for the MT timeline. Ussher (1650) favors 2242BC, the fifth year of Peleg's life. Jones (1993) leans toward a date near the end of Peleg's life, c.2008BC, and many gravitate to 2247BC, the year of Peleg's birth on the MT timeline. Griffith and White (2022b) make a case for a main date of 2192/1 with a minor dispersion preceding the main body at 2198/7BC. For simplicity, we will use the date of 2191BC for the Dispersion on the MT timeline to keep in alignment with Griffith and White's settlement dates, granting that considerable variation of opinions exists. Under our assumptions for the MT timeline, the approximate date of the start of glaciation would be 2347BC, and meltdown would begin 1847BC. Ice coverage would be down to approximately present day levels around 1647BC. While Oard argues that the edges melted quickly, 70 years, we have chosen 100 years, the half-way point in the meltdown, as the average time when glaciated land would again be habitable.

Septuagint

The Old Greek translation of the Hebrew Scriptures (LXX) is favored by Habermehl (2011; 2013), Rudd (2019), Smith (2018), Young (2003), and others, regarding the time line derived from Genesis 5 and 11. The LXX timeline puts the Creation in 5554BC, the Flood in 3298BC, and Peleg's lifetime as 2767–2428BC. Again, there is no uniformity of opinion among scholars as to the date of the Dispersion on the LXX timeline. Many papers simply do not address the fine details of the timeline itself but focus on its possible veracity based on textual criticism (for example, Eames 2023; Smith 2018; Young 2003). One author that does argue for a specific date is Rudd (2019), who argues for a date for the Tower of Babel of 2850BC from archeological data to align the Tower with Eridu Temple I, similar to Rohl (2002). In his scheme, Peleg would have been born after the confusion of tongues but before the actual partitioning of the earth, so even Rudd does not posit a specific date for the Dispersion, although sometime after 2767BC (Peleg's birth) is implied.

⁶ The reader may wish to start with these references: Archer and Chirichigno 2005; Brasseaux 2021; Bruce 1988; Dane 2022; Dorival 2021; Eames 2023; Gren 2005; Griffith and White 2022a; Hendel 1998; Jobes and Silva 2015; Jones 1993; Josephus 2018; Lanier and Ross 2021; Law 2013; Marcus and Sanders 2013; Rudd 2017; Rydelnik 2019; Sailhamer 1995; Smith 2018; Ussher 1650; Vrz 2022; Young 2003.

For simplicity, we will use the LXX date of Peleg's birth (2767BC) to represent the Dispersion on the LXX timeline, which is an arbitrary assumption based on Genesis 10:25. Genesis 10:25 only says that the earth was "divided" in Peleg's days. The salient expression in Hebrew is "הָאֲרֶץ נִפְלְגָה" (land divided), which is given no further explanation. Under the LXX timeline, the start of glaciation under Oard's model would be 3298BC, meltdown beginning 2798BC, and meltdown completing around 2598BC. Half-way through the meltdown would be 2698BC.

The Dispersion Biblically Speaking

Within the canonical books of the Bible, the Tower of Babel incident and the Dispersion from the Plains of Shinar are described quite tersely in Genesis 11:1–9. This very short passage tells us that people rebelled against God's will for them to spread out over the face of the earth and subdue it. Instead, they wanted to maximize their power by remaining united and to maximize their self-esteem by executing great engineering feats. To accomplish His will, God confused their language, destroying the collaboration they so desperately desired, forcing the people to scatter. Otherwise, the only other place in Scripture that refers specifically to the Dispersion is Genesis 10, the "Table of Nations," which describes where some of the initial migrants landed. This text is short on detail and does not tell us how many of each tribe there were, how they traveled, what they took with them, when they left, how fast they traveled, or how long their journeys took. Nor do we find in Scripture where the nations spread from those initial landing places. Beyond these sparse biblical clues, answers to a host of questions, which must be tentative answers at best, must come from extra biblical sources.

Extra Biblically Speaking

The Book of Jubilees, a deuterocanonical book written during the intertestamental period, describes how Noah and his sons came to the point of dividing the earth (at least far as they knew it) into three domains by Noah casting lots. Ham received the hot places on the planet, Japheth received the cold places, and Shem received the hot and cold (temperate) places. A number of details of who went where are given in *Jubilees* 8 and following, but none of the details reference anything outside of western Asia, which is very understandable unless Noah and his sons had a globe of the earth on their desk. Few consider *Jubilees* to be inspired, but it may be the only written record of how things unfolded.

Taking only the inspired text, one could assume that no one struck out on his own before the confusion of tongues. However, Griffith and White (2022b) and

Osgood (2023) maintain that some people dispersed before the confusion of tongues. Griffith and White (2022b, Durations 13 and 17) claim that both the Chinese and the Peruvians were actually in their allotted territories by 2198/7BC, six to seven years before the confusion of tongues in 2192/1BC by their reckoning. Osgood states that early dispersal of people from the central family group might have been the primary motivation for the remaining people to cling together. Both papers infer that the Dispersion was completed within Peleg's lifetime, which is a reasonable but not the only possible interpretation of Genesis 10:25. Also, the exploits of Nimrod (and possibly Asshur) described in Genesis 10:8–12 could be considered part of the Dispersion, or they could be viewed as the building of local infrastructure.

Another source of data that reflects on the origins of people groups and could give clues as to the migration patterns of the past is chromosomal data, mitochondrial DNA for women and Y chromosome data for men. The number of studies in this area has grown in recent years. However, most of them suffer from worldview bias, and all of them suffer from the unavoidable genomic mix-up of intermarriage through the many generations since the Dispersion. On the conventional side, studies like Cai et al. (2011) start with the assumption of long ages, so they come to the conclusion that Southeast Asia was settled during the Last Glacial Period (LGP, see below) from southwest to northeast. Most of these studies also take the tree of chromosome differences and root it on a hypothetical common ancestor of apes and humans.

A recent study by Jeanson (2021) takes a biblical view. (The discussion in his book is quite technical at times but nevertheless accessible to a layperson. Please see for a fuller discussion.) Accordingly, Jeanson chose to root his Y chromosome tree on a node that very much looks like he has identified Noah and his three sons. Jeanson posits that major events in the history of mankind are reflected in this Y chromosome tree. Through his methodology, he concludes that Southeast Asia was settled from the north, not the other way around. While some major events can be analyzed by Jeanson's method, short-lived details in the most distant past, like figuring out where Madai's people went next after settling Persia (Scripture equates Madai with the Medes), are obscured by time.

At some point (we can argue about when), people began to wander off in different directions, perhaps all over the lower latitudes and elevations of the earth, especially in western Asia close to home as related in the Table of Nations. Most of the studies documenting movements and settlements in this age are archeological in nature. Osgood (2023)

traces post-Flood use of tools to propose possible migration paths for Noah's sons throughout western Asia. Weiss and Zohary (2011) trace the spread of early cultivars of important food crops in the region. Griffith and White (2021) notice huge common habitation locales between the early food cultivars and the evidences of "Pre-Pottery Neolithic A" (PPNA) settlements in western Asia (Kenyon and Holland 1981), which they claim may be the predominant culture for the first two centuries after Babel. All three datasets indicate earliest settlements in the same areas of western Asia in a boomerang shape centered on the Mountains of Ararat, sort of a mini Fertile Crescent. These early settlement patterns do indicate fluidity within western Asia but do not nail down a timeframe for a massive breakout to populate the globe. Nevertheless, folks eventually had to reach northern Europe. Griffith and White (2022b) estimate when they arrived for two groups of people.

Founding of Trier, Germany

In some instances, traditions get passed down in writing with enough information to tie settlement events to specific dates. Griffith and White (2022b) have investigated a number of these traditions, some with more support than others. Two sets of traditions that they have found for northern Europe relate to the founding of Trier, Germany and the colonization of Ireland (Griffith and White 2022b, Durations 15 and 16). They tie both events to a main dispersion of the population following quickly on the heels of the confusion of tongues and estimate a date for the Dispersion of 2192/1BC based on their methodology called "durations and triangulations" (Griffith and White 2022a; 2022b).

Trier (Griffith and White 2022b, Duration 15) is a town in northwest modern day Germany (North Rhine-Westphalia), probably so named after a Keltic tribe called Treveri who were encountered in the area by the Romans. The Romans established an outpost there in the first century AD, probably in response to a rebellion by the Treveri in 30–29BC (Cassius Dio 1917). Trebeta is credited with Trier's earlier founding in legends called the "Deeds of the Treven" collected in the twelfth century by monks of St. Matthias' Abbey in Trier (Zenz 1955–1962). According to these legends, Trebeta was the son of Ninus of Assyria and an unnamed woman who was Ninus' wife before Semiramis (see more about Ninus and Semiramis in the notes). As the story goes, when Ninus died, Semiramis took control of the kingdom and positioned her son sired by Ninus to be the next king. Trebeta took this as ill for him to remain and fled western Asia, wandering throughout Europe until founding Trier in 2053BC.

While suspected by some to be a fabrication, this story is consistent with that told about Ninus in classical sources (Ctesias of Cnidus via Diodorus (Diodorus Siculus n.d.), George Synkellos (Adler and Tuffin 2002), and Sura via Paterculus (Griffith and White 2022b, Duration 6). It is possible that either the monks or whoever provided them the legend could have used those sources to fabricate the tale. That would indicate a detailed knowledge of classical literature, which would be difficult to explain for anyone in Trier except for the monks. Nevertheless, Trebeta is linked both to folk traditions current to this day in Trier and to classical writings. Trebeta is also linked to Tuisto, a legendary founder of Germany discussed more below.

The Colonization of Ireland

The colonization of Ireland is attested by three ancient witnesses (Griffith and White 2022b, Duration 16), all from Irish sources. The *Annals of Clonmacnoise* (Murphy 1896) are a translation of an ancient Irish Gaelic text that is no longer extant. It was translated in 1627 into early modern English (Elizabethan in some parlances) and unpublished until 1896. This collection deals with Irish history from the creation of man through AD 1408.

The *Annals of the Four Masters* (originally, the *Annals of the Kingdom of Ireland*) (Ryan 2002) is mostly a collection of previous annals drawn together c. 1632–1636. These *Annals* span Irish history from the Deluge, which is dated 2242BC up to AD 1616. The date of 2242BC in the *Annals*, coincidentally or not, is the same as Ussher's chosen date for the Dispersion, the fifth year of Peleg's life on the MT timeline. Ussher was Irish and wrote at nearly the same time, so possible influence cannot be discounted out of hand. The first publication of these *Annals* in English may have been in 1846.

The *Book of Invasions* (or *Book of Takings*, Macalister 1941) is a collection of poems and prose that relate the history of Ireland from Creation to the Middle Ages. Its *provenance* is veiled but appears to have settled as a unified text sometime during the twelfth century AD. Eventually redacted into modern Irish Gaelic, it was first translated into English by Macalister between 1937 and its publication in 1941.

These three sources have two things in common. First, they all nominate a person named Partholan (or Partholón) as the first person to set foot on Irish soil, at least after the Flood. The *Book of Invasions* claims that Ireland was inhabited before the flood by a woman named Cessair and her people (the first of six invasions or takings of Ireland). Based on the idea of the Flood remaking the continents, we could doubt that the island of Ireland existed pre-Flood (see Baumgardner 1994, cf. Snelling and Hodge 2010).

Second, the sources all relate significant events in Irish History to biblical events with calculable dates, the most salient of which is the invasion of the Milead, the Gaelic speaking Kelts who invaded Ireland from Spain about the time of David (c.1000BC) per the *Annals of Clonmacnoise*. Griffith and White use the derived synchronisms to calculate a date of 2035 for the first landing of Partholan in Ireland.

Natural History of Glaciation

Shared data and the conventional view

All of the physical data testifying to glacial activity on the earth is held in common between conventional geologists and creationist geologists. The two groups of scientists disagree on *when* glaciation occurred, but they cannot help but agree on *where* it occurred based on the physical evidence. Hence, we will borrow freely from conventional troves of data regarding possible past glacial extents without accepting the conventional timeline. We reject the Astronomical Hypothesis that there have been 20 to 30 ice ages over the last 2.6 million years, each lasting approximately 100,000 years. In the discussion that follows, our assumption is that there was a single post-Flood Ice Age (Oard 1990, chapter 7), caused by the Flood, which produced all of the geological evidence of glaciation seen by scientists of any stripe. We also assume that the age of the earth and the date of the Deluge are limited by the testimony of Scripture as outlined above to recent time on the conventional scale. We make no provision for adding any more time to the history of the earth to accommodate long ages.⁷

To estimate the extent of glaciation in the post-Flood Ice Age, we will examine the consensus of conventional geology to frame the possible glacial extents in earth history. The maximum extent of all

actual glacial activity identified in the world should be explained by Oard's "single ice age" model. To choose data for estimation, we assume that older data would be less reliable than younger data. Data supposedly referring to times before a certain age are not even considered reliable by conventional scientists. Batchelor et al. (2019) say, "Our understanding of how global climatic changes are translated into ice-sheet fluctuations and sea-level change is currently limited by a lack of knowledge of the configuration of ice sheets prior to the Last Glacial Maximum (LGM)." This could be interpreted as a tacit admission that anything hypothesized before the Last Glacial Maximum (see below) is mostly imaginative and lends credence to the idea that the last ice age was the only Ice Age.⁸ Hence, we will concentrate on the data for extents of glaciation during the last ice age, focusing on implications for Trier, Germany, and Ireland.

In conventional scientific literature, the last ice age is called the Last Glacial Period (LGP). On the conventional timeline, the LGP is hypothesized to cover approximately 115,000 years before present (YBP) to 11,700YBP (see, for example, Marshall 2010). Conventional geologists hypothesize the Last Glacial Maximum (LGM), that is, the last greatest glacial extent during the LGP, as starting around 27,500YBP, peaking at 26,000YBP, with recession starting at 20,000YBP and lasting to the end of the LGP at 11,700YBP (see, for example, French 2021). See figs. 1, 2, and 3.⁹ Note that by conventional reckoning on the Astronomical model, we should be approximately 12,000 to 15,000 years into the next 100,000 year cycle.

Glacial activity for the hypothesized LGM period would include the Würm/Weichsel glaciations of

⁷ The difference in the age of the earth between the MT timeline and the LXX timeline is only 1,550 years, about 26% of the total MT timeline to the present. This is a far cry from even 10,000 years, much less millions of years. There are no long ages involved, even on the LXX timeline.

⁸ The number of hypothesized ice ages may be as high as 50. Since the rubble in moraines is difficult to sort out into however many glacial advances are hypothesized, some conventional scientists have resorted to using ice cores and sea sediment cores to derive the number of ice ages that have happened. In the literature surrounding this research, millions of years are expounded as a matter of course, even by National Aeronautics and Space Administration (Riebeek 2005; 2006; NASA 2005). See also Alley 2000; Bradley 1999; Cole et al. 2000; Imbrie and Imbrie 1979; Jouzel et al. 2000; McManus et al. 2004. Of these, only Cole et al. (2000) work within a recent timeframe but not from a creationist point of view.

A common theme of these writings is that the presence of fixed heavy oxygen in plant and animal remains is enhanced by colder water temperatures at the time that the organisms lived. These data are tied to either layer counting or carbon 14 dating (limited to 40,000 YBP in theory) to assign estimated ages to samples in the attempt to correlate changes in water temperature to times past. By counting the number of water temperature changes, analogous to counting magnetic flux changes or varves, researchers hope to approximate the number of ice ages on the planet.

A recent study (Waelbroeck et al. 2019) seems to have correlated Atlantic sea bed cores with the Greenland GICC05 ice core chronology using radiocarbon dating to assess the sea bed cores over the last 40,000 years, the theoretical limit of carbon 14 dating. The creationist literature is replete with refutations of the reliability of this and other radioactive decay dating mechanisms. The running gun battle is epitomized by these two Web references: Patterson (2008:); National Center for Science Education (1982). The use of ice and sea bed cores to estimate ice ages has been addressed within the creationist community on many occasions. Hebert (2014a, 2014b) has summarized the arguments made on both the conventional and creationist sides in a very accessible pair of survey articles.

⁹ Fig. 3, especially, is a summary of 170 or more years of glacial investigation going back to Charpentier and Agassiz. The extents portrayed in the figure are accepted throughout conventional circles and do not seem to be disputed within the creationist community. In this case, the picture in fig. 3 is probably worth millions of words that need not be repeated here. These data are accepted as given for our analysis.

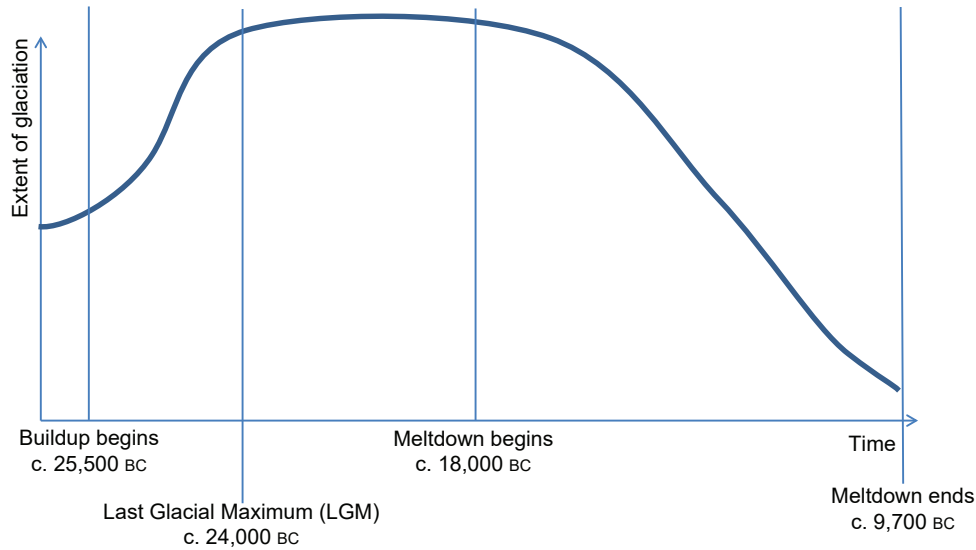


Fig. 1. Possible glacial timeline for the Last Glacial Maximum (LGM).

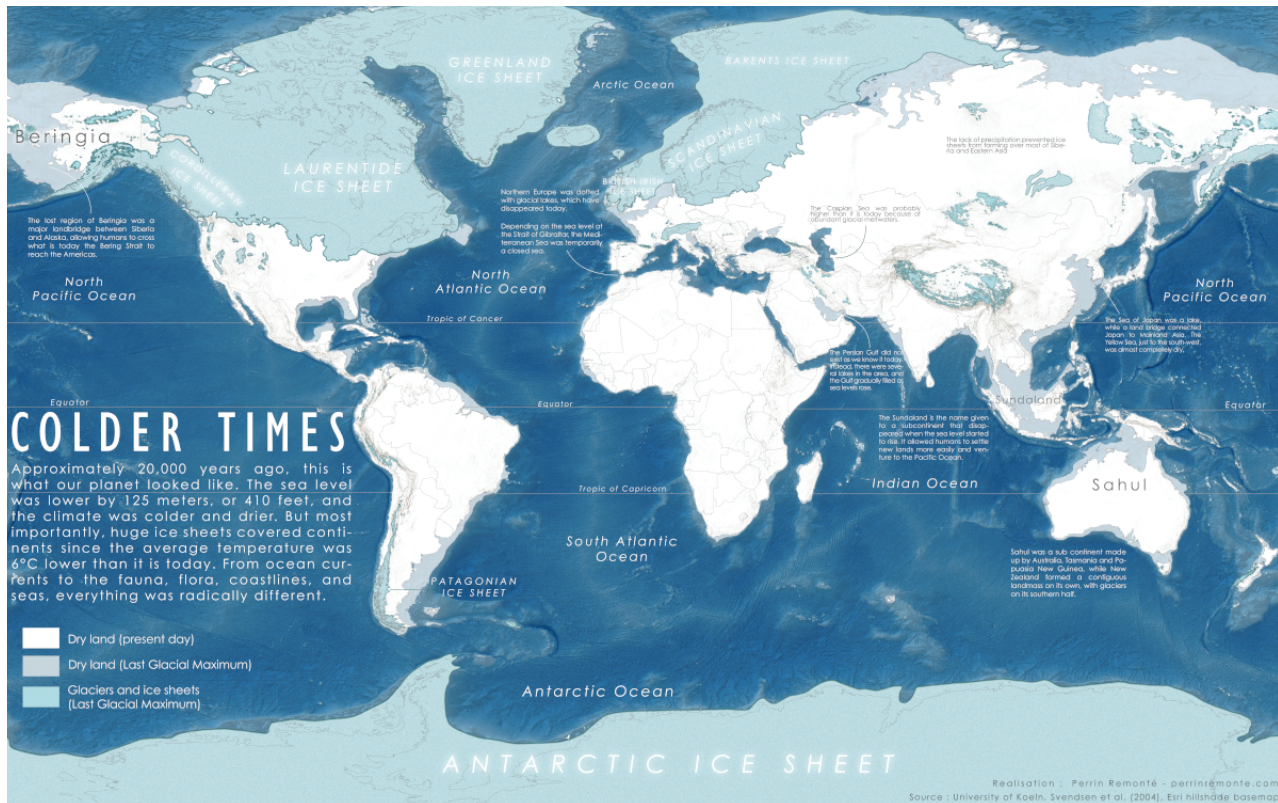


Fig. 2. Extent of last glacial maximum (LGM).

Europe. The Würm glaciation affected the Alps and surrounding areas (Becker et al. 2016; 2017; Florineth 1998; Kelly et al. 2004). The Weichsel (Northern Polish) glaciation, associated with the Fennoscandian (or Altura) Ice Sheet, affected Ireland, Great Britain, Germany, Poland, Russia, Siberia, the Baltics, and Scandinavia (Mangerud et al. 2004; Patton et al. 2017; Stroeven et al. 2016). Again, physical evidence shows that these glaciations occurred and where they occurred; only the timing is disputed. Europe during the LGP is hypothesized to have had tundra covering the area between the Würm and Weichsel glaciers,

extending east into Eurasia (Kirschner et al. 2022).

Note that conventional geologists do not claim that the LGM exhibited the greatest extent of glaciation in earth's history; in their view the LGM represents only the most recent expansion of several stadial/interstadial fluctuations hypothesized as occurring during the LGP. Also, prior glaciations in the Quaternary Period are hypothesized to have had greater extents. See Batchelor et al. (2019) for a modeling experiment that purports to show what could have happened during the Quaternary Period. Again, we are just borrowing conventional extent

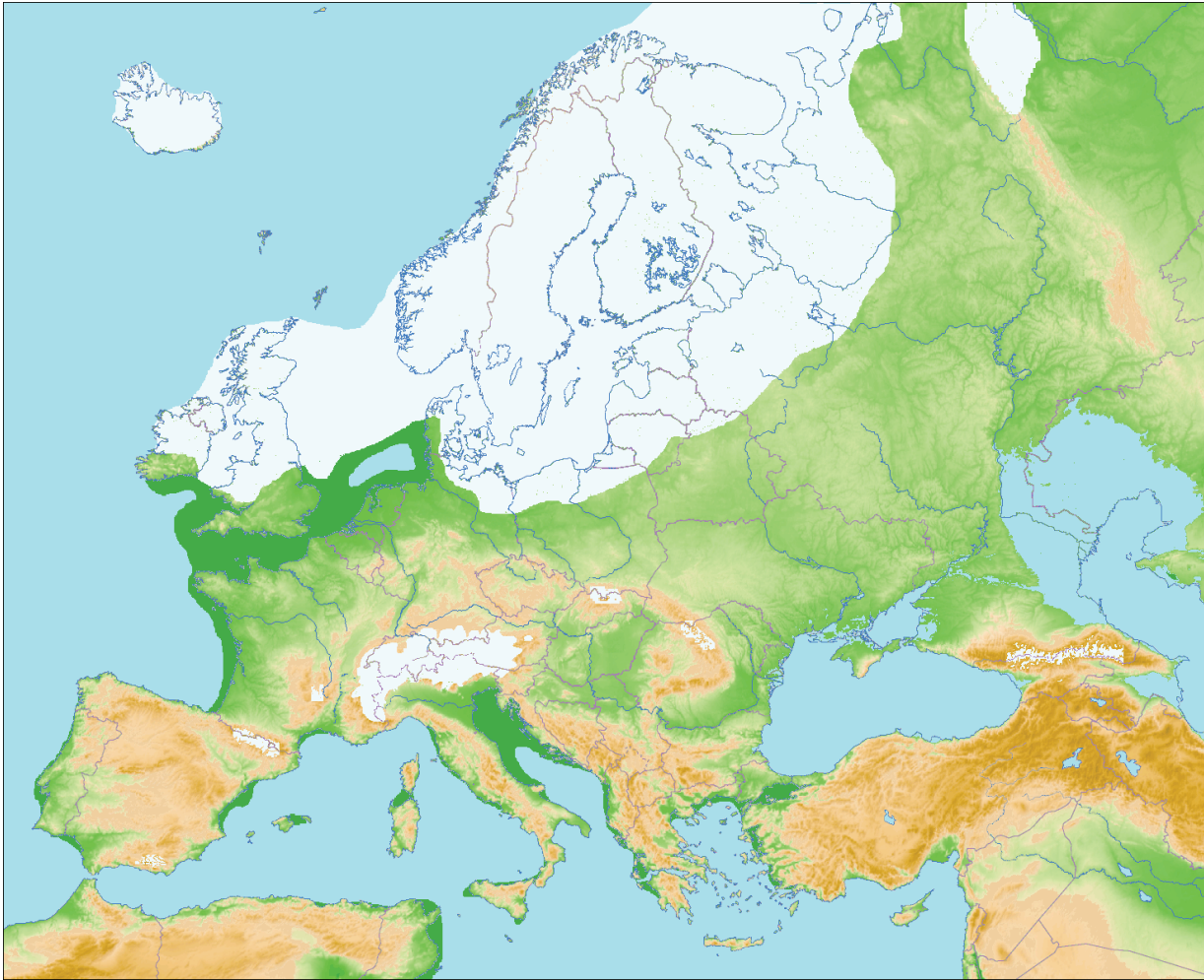


Fig. 3. Europe during the last glacial maximum (LGM). Ulamm, “Europe during its last glaciation, about 20,000 to 70,000 years before present, in northern Europe called Weichselian Glaciation, in the Alpine Region Würm Glaciation. The Extent of glaciation, sea and lakes have been painted freehand according to <https://diercke.de/content/europa-landschaft-zur-letzten-kaltzeit-w%C3%BCrmweichsel-vor-18000-jahren-978-3-14-100800-5-88-1?&stichwort=Weichseleiszeit> and https://commons.wikimedia.org/wiki/File:Map_of_Alpine_Glaciations.png,” <https://commons.wikimedia.org/wiki/File:Weichsel-W%C3%BCrm-Glaciation.png>. Source: https://commons.wikimedia.org/wiki/File:Europe_topography_map.png. GNU Free Documentation License.

data, not accepting their timeline. Thus, the actual extent of the post-Flood glaciation could be somewhat larger than the extent hypothesized for the LGM based on physical evidence of glaciation, some of which is beyond the limits of the LGM. Although they may not be entirely accurate, these conventional glacial extent data for the LGM are readily accessible, are largely unarguable (except for timeframe), and should provide a reasonable approximation for the post-Flood Ice Age extents for northern Europe.

Based on these data for the LGM, northern Germany, including Trier, and all of Ireland, except possibly the extreme southwestern tip, would have been under massive glaciers at the peak of glaciation (see fig. 3). Permafrost would have extended down to Hungary, north of which agriculture would not have been possible. It is also possible that the Würm glaciers could have limited the paths to northern

Europe from western Asia to an end run either across northern Africa then up through Spain or from the east via the tundra between the glaciers. The Alpine region would have been impassible. The extent of the Würm glaciers is hypothesized to have been greater for glaciations before the LGM. These larger extents would apply to Oard’s model of one Ice Age.

Brief Summary of Oard’s Model

All considerations here take as starting assumptions that the earth was created by God ex nihilo less than 10,000 YBP. Subsequent to that creation, God judged the earth via a cataclysmic upheaval that completely changed the face of the earth. This catastrophe, which we call the Flood or the Deluge, probably included massive runaway subduction (Baumgardner 1994, cf. Snelling and Hodge 2010) and other tectonic plate movements,

extreme volcanic activity, land uplifts, ocean basin depressions, severe erosion from runoff (for example, Austin, Holroyd, and McQueen 2020; Bretz 1923; Jarrett and Malde 1987; Waitt 1985), and perhaps other means of transforming the face of the earth. This was a once in eternity occurrence per God's promise (Genesis 9:9–17). This upheaval is reckoned to have caused conditions on the earth rife for the formation of glaciers over newly formed land masses.

These conditions include relatively warm oceans caused by deep vents in the earth's crust and high tectonic activity, leading to high rates of sea water evaporation and thus, high rates of frozen precipitation over relatively cool land masses. This would have begun in favorable places like central Canada and spread from there by positive feedback (snowballing). Conventional scientists (Seltzer et al. 2021; Tierney et al. 2020) estimate that the average temperature of earth during the LGM was 6°C (11°F) cooler than the average for the 2013–2017 period of 15°C (59°F). Vast volcanic activity possibly clouded the skies with ash and aerosols, which led to generally lower levels of solar energy absorption. Clouds and frozen precipitation on the land also would reflect more solar energy back into space at various wavelengths (high albedo). Accumulating frozen precipitation compacted into ice that flowed away from pressure in the form of glaciers.

Finally, decreasing volcanic activity and cooling seas led to changes that allowed the glaciers to melt in all places except Antarctica and Greenland, where they continued to grow. Ocean levels lowered and then rose with the waxing and waning of the ice, and from crustal depression and rebound, which would work in the opposite direction; see Oard (1979;

1984a; 1984b; 1985; 1990; 2004; 2005; 2024) for a fuller discussion of his model.

Following Oard, we will assume that the post-Flood Ice Age started soon after the Flood and lasted approximately 700 years; see fig. 4. Conventional models for the hypothesized LGM (fig. 1) suggest a somewhat bell-shaped curve skewed heavily to the right, the opposite to what Oard proposes for his model. Under the Oard model, meltdown is very quick by comparison after accounting for scale. We assume that under Oard's Ice Age model the same conclusions are valid as we made for the hypothesized LGM; that is, that northern Germany and almost all of Ireland (possibly all depending on actual extents) would have been under massive ice sheets at the peak of glaciation, and only roundabout paths to Europe might have been available. Specifically this implies under Oard's model that at a minimum from about 200 years until about 600 years after the Flood, northern Germany and Ireland were largely inaccessible to human habitation or travel. That is, people could have entered northern Europe just after the Flood, but they would have been evicted by expanding glaciers within a relatively short time.

Analysis Masoretic timeline

If the extent of glaciation of northern Europe as identified by glacial data for the LGM approximates what actually happened in the post-Flood Ice Age, then the Ice Age dates derived from Oard's model are inconsistent with the settlement of Trier and Ireland at the times determined by Griffith and White (2022b, Durations 15 and 16). Fig. 5 depicts the Oard Ice Age model on the same timeline with these settlement events. From this we see that the Dispersion occurs

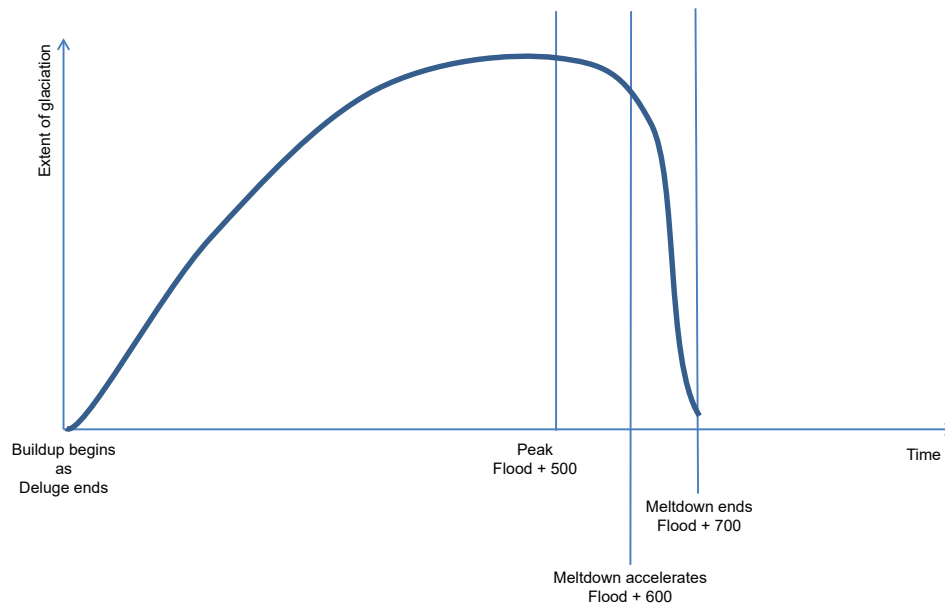


Fig. 4. Possible timeline for the Oard Ice Age.

during the glacial buildup. Approximately 150 years later, just ahead of peak glaciation, we find the founding of Trier, Germany (2053BC) and the colonization of Ireland (2035BC). It might have been possible to skirt the southern edge of the Weichsel glaciers and gain a beachhead on southwestern Ireland at that time (see fig. 3), depending on actual glacial extents, but inhabiting northern Germany at that time seems to be out of the question.

Someone may say that the migrants just could have toughed it out and moved in disrespecting the glaciers. This is hardly possible. At peak glaciation, northern Europe would not have been under a few feet of snow. It would have been under hundreds of feet of ice. By conventional reckoning (Hitchcock 2024), the depth of the Fennoscandian (Altura) Glacier at the peak of the Würm/Weichsel glaciation was 3.8km thick, or approximately 2.4 mi. Oard argued at one time that secular estimates of glacier thickness are about 1.5 times what his model produces (Oard 1990: 98ff). To use his intermediate

numbers would bring the Altura glacier down to 1.6mi in depth. More recently, Oard (2017) has posited that the Scandinavian and British ice sheet thicknesses were only 40% of conventional estimates, which brings the Altura Glacier down to only 1 mi thick. That depth of ice produces a totally uninhabitable place.

Travel across glaciers is extremely difficult and can be deadly, especially for untrained individuals. See, for example, AlpineSavvy (2024), Thomas and Chelton (2020).¹⁰ Massive glaciers would present an impenetrable barrier to migration of even modest numbers of people and would not allow wagons, travois, sledges, or livestock to pass at all. Human presence on the glaciers would be limited to small parties who were both experienced and traveling lightly. The distance of travel into glaciers would be very limited due to complete lack of liquid water, fuel, game, and vegetation on the ice. Habitation around the edges of the glaciers would have been possible for people engaged in hunting and fishing, but

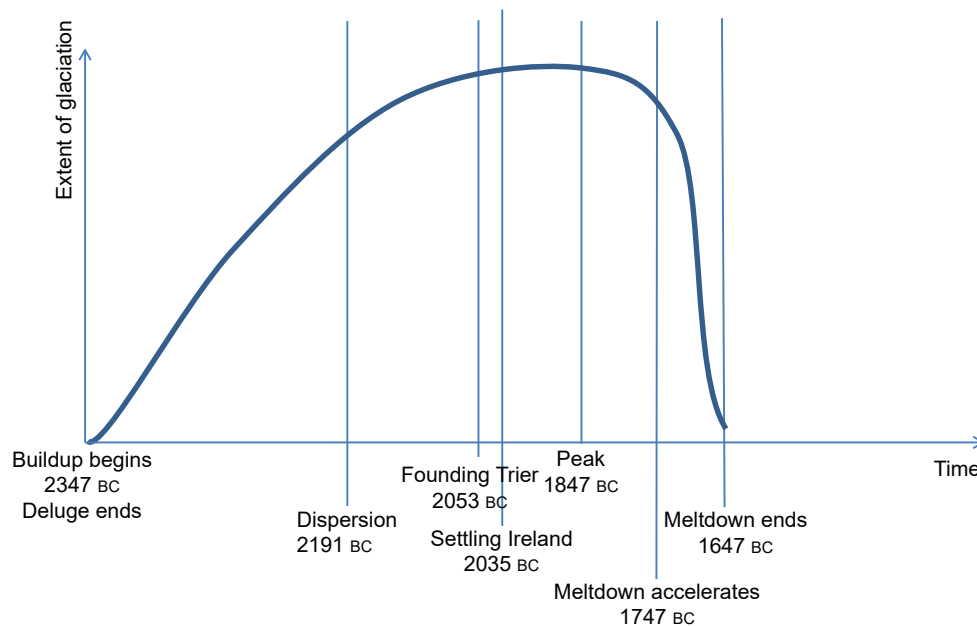


Fig. 5. Oard Ice Age and Genesis events on the MT timeline.

¹⁰ One of the most dangerous aspects of exploring glaciers is the fact that they develop deep crevasses from the changes in temperature and pressure within the ice, like ice heaves on a highway surface but on a huge scale. A crevasse can be anywhere from a foot or less across to hundreds of feet wide and can be hundreds of feet deep regardless of its width, a fall that would kill a person. The real danger is that narrow, deep crevasses do not fill with snow from the bottom up. They will get windblown snow caps spanning the gap that are hard to see and easily broken by the weight of a human body. Hence, inexperienced eyes do not recognize the danger signs, and unsuspecting explorers break through into deadly drops. For this reason, glacial explorers travel in groups with an experienced person in the fore. They walk in the leader's footprints, spaced out and tied together with ropes so that if anyone falls into a crevasse, the others can resist the pull without being pulled in themselves and prevent a deadly fall. Now comes crevasse rescue, which uses highly specialized techniques in which novice explorers must be trained. The Germans and Irish would have lacked this knowledge and experience, and many would have died this way—or by freezing, thirst, or hunger—had they ventured into the glaciers.

This author recently toured Alaska. As we neared Seward and passed by a glacier on the train, we were told a story by the guides about an employee of a mining company who was supposed to deliver a payroll (not paper money, but gold) on the far side of the glacier. In an attempt to shorten his workday, the messenger decided not to go around the glacier but to go across it. He and the gold were never seen again. One could suppose that he faked his own death and absconded with the gold were it not for the remoteness of the area and limited points of egress where one would not be noticed carrying a considerable amount of gold.

agriculture would not have been possible north of the permafrost line. During this time, people could have lived in caves *near* the glaciers but not *on* the glaciers or surrounded by them. See more below.

Sensitivity Analysis for the Masoretic Timeline

Assuming the Ice Age starts some years after the Flood on the MT timeline, later than Oard proposes, but not shortening the duration, does not allow settlement at the proposed times. Every decade added to the start pushes out the meltdown by the same amount. Assuming a longer Ice Age is counterproductive for the same reason. On the other hand, if we push the start date of glaciation late enough, or allow settlers to leave Babel early enough, the settlers could make the journey into Germany and Ireland before glacial buildup, but they would be driven out as the glaciation peaked. They would not be able to return at the times proposed by Griffith and White (2022b).

If we shorten the Ice Age, we would have to posit a very short Ice Age that starts right after the Flood and that melts down sufficiently before the end of the migration travel time, about 150 years per Griffith and White (2022b). This model would posit c. 2347 BC for the start of the glaciation and c. 2040 BC for the end, or about 300 years; see fig. 6. This is a major departure from Oard's chosen parameters for his model, which has a 700-year duration. Oard chose a middle ground estimate of glacial peak from the range factored into his model (Oard 1990, 97), and a start-to-peak duration of as little as 174 years was not out of the question, which would fit these current assumptions and allow for meltdown before these settlement dates.

Coincidentally, the 300 years derived above is essentially the same duration for the Ice Age proposed by Snelling and Matthews (2013), who arrived at

their timeline by aligning paleontological data to the timing of biblical events on the MT timeline. See fig. 7. Beside the duration, the other main difference from Oard is that they posit a later start for the Ice Age: "So it is reasonable to conclude that the start of the Ice Age in the Northern Hemisphere (the Pleistocene) roughly coincides with the Babel judgment, around a century or so after the Flood (perhaps 2250 BC)." The start of meltdown in the Snelling and Matthews glaciation scenario would be c. 2000 BC, ending c. 1950 BC. These dates are still too late to help the Germans and Irish to get to their respective homes by 2053 BC and 2035 BC.

Another possible adjustment would be to move the assumed date of the Dispersion. Moving it earlier does nothing to help. After 150 years of travel (more or less), the settlers might arrive before glacial peak but still would be pushed out with glacial advances. Moving the Dispersion later to allow for meltdown to occur before settlement seems like it should work, but then we notice that the Dispersion might have to be moved to as late as 1900–1800 BC to ensure a path to Trier and Ireland during or after the meltdown period, 1850–1650 BC. In that case, the Dispersion would overlap biblical events such as Abram's sojourn in Canaan. Scripture states in Genesis 11:27–12:9 that Abram began his sojourn in Canaan when he was 75 years old. There is some ambiguity about the date of this event, depending on when Abram was actually born to Terah (Genesis 11:26 is somewhat ambiguous), but c. 1981, 1921, 1885, 1855 BC, and other similar dates have been suggested to Abram's Sojourn in Canaan. Clearly, the Dispersion had to happen a considerable time before Abram departed Haran for Canaan. Otherwise, there would have been no Canaanites or Egyptians to receive him.

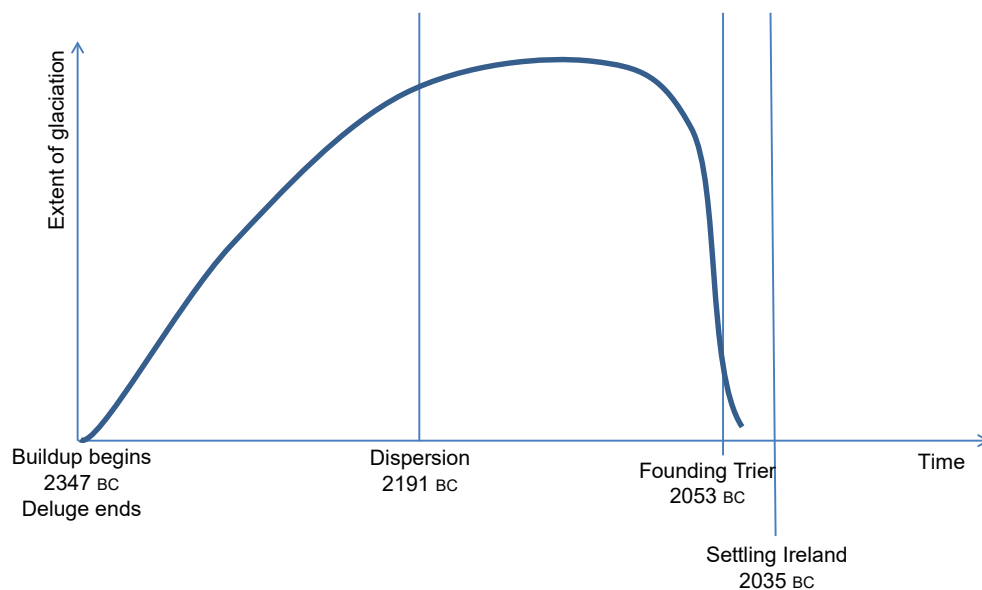


Fig. 6. Short Ice Age and Genesis events on the MT timeline.

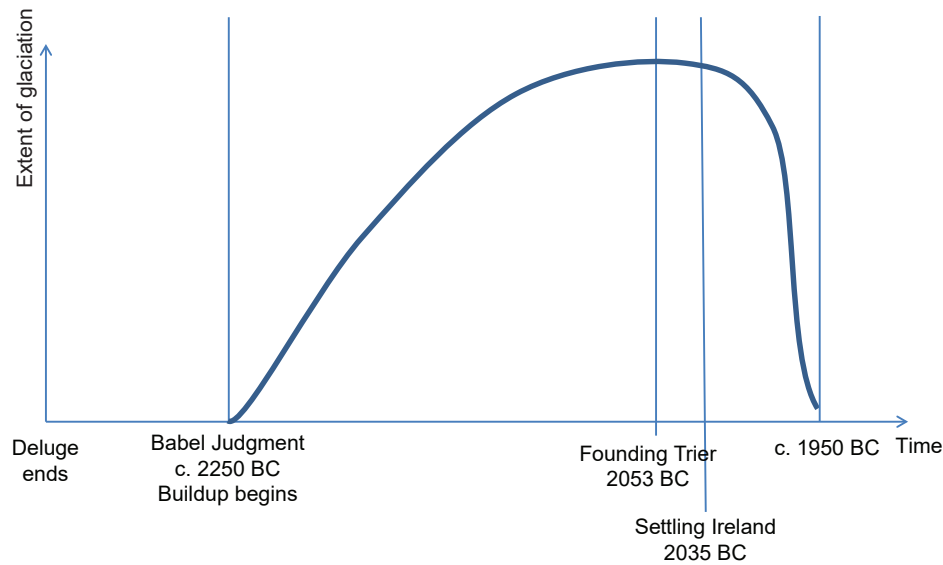


Fig. 7. Snelling and Matthews Ice Age and Genesis events on the MT timeline.

Another suggestion would be to question the settlement dates for Trier and Ireland. To be safe from glaciation under our current scenario, the founding of Trier would have to be pushed out to about 1750–1650 BC, which would separate them from Trebeta, son of Ninus (Griffith and White 2022b, Duration 15), by nine to twelve generations (assuming begetting ages more akin to ours). The southwestern tip of Ireland (Griffith and White 2022b, Duration 16) possibly could have been reached by 2035 BC by skirting the southern edge of the Weichsel glaciers, provided that tip of land was not actually covered in ice. If they did make a beachhead, the Irish would have had to wait until during and after meltdown, possibly c. 1750–1650 BC, to engage the rest of the island.

We consider migration times from Mesopotamia to northern Europe of 150 years to be possible even if somewhat rapid for people just spreading out to find *Lebensraum*. This average migration time is based on the difference between the triangulated date of the Dispersion (2191 BC) and these arrival dates (2053, 2035 BC) in Griffith and White (2022b), but none of the sources for those migrations into northern Europe names a starting point for its migration except one. Tuisto reportedly left western Asia 153 years after the Flood (2347–153=2194), about the same as Griffith and White's Dispersion date, and went to Europe (Griffith and White 2022b, Duration 15). We seem not to have a record of when he arrived. Testimony to Tuisto seems to come originally from Pseudo-Berosus, which conventional scholarship tends to disregard as fabrication (for example, Stephens 2011). Anderson (1732, 442) states that Tuisto was Ashkenaz, son of Gomer, but that idea seems to have no continuing support. Griffith and White (2022b, Duration 15) lay out circumstantial

evidence from which one could conclude that Tuisto was Trebeta, son of Ninus. Regardless of his identity, Tuisto could not have done much in Germany until during or after the glacial meltdown.

Septuagint timeline

On the LXX timeline, Oard's Ice Age would have been at its peak when Peleg was born. See fig. 8. If the Dispersion occurred near Peleg's birth, about 500 years post-Flood, migrants possibly could have settled northern Europe and Ireland after 150 years of travel time, arriving about 650 years post-Flood (c. 2648 BC), which would have been late in the meltdown. The fact that the arrival dates after 150 years of travel under this scenario would precede those reported by Griffith and White by 600 years is discussed below. If the Dispersion did not occur until somewhat later in Peleg's life, then the Ice Age as parameterized by Oard would have been over before anyone reached northern Europe, so settlement would have been quite possible.

On the LXX timeline, various parameters can be changed by hundreds of years without invalidating the Oard model or violating the biblical record and still achieve settlement of northern Europe at the times determined by Griffith and White, or even much earlier as shown above. However, an objection to this scenario is the possibility that access to the Americas by land might be blocked at the time of the Dispersion if it happened during the peak of glaciation. The idea that the Americas were reached by land after the Flood requires the presence of a land bridge, such as the one hypothesized to have crossed the Bering Strait. By Oard's Ice Age model, this land bridge would have been available from c. 200 to 600 years post-Flood, 2147 to 1747 on the MT

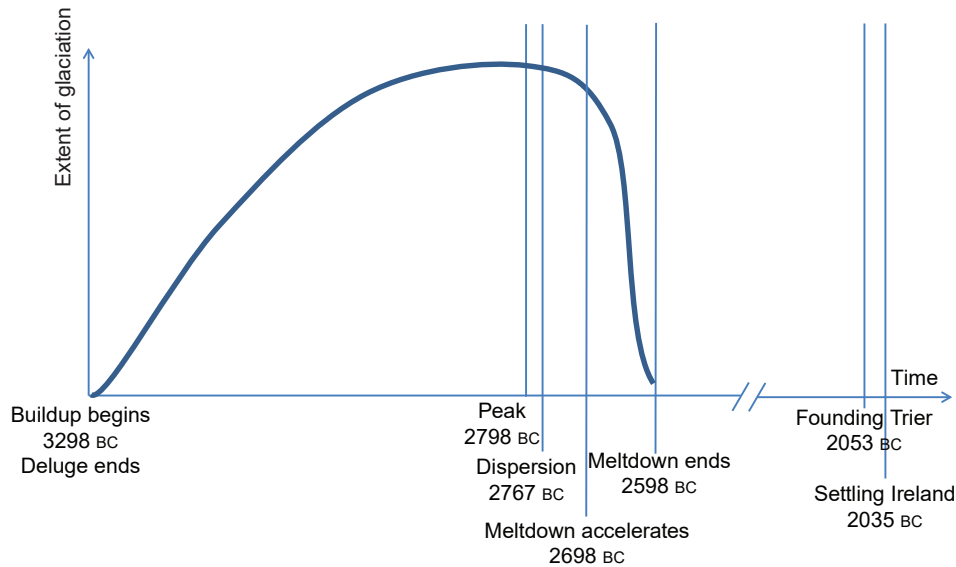


Fig. 8. Oard Ice Age and Genesis events on the LXX timeline.

timeline, or c. 3098 to 2698 BC on the LXX timeline. The usual scenario is that people crossed before the peak of the glaciation and skirted the east side of the Rocky Mountains (the “ice-free corridor”); Antevs 1935, 302–309) squeeze between two large tracts of glaciers in North America, the Laurentide and Cordilleran ice masses.

A catch-22 exists in this scenario. The appearance of the land bridge depends on sufficient water being locked into ice to cause lower sea levels. That is, a lower sea level is bought by deeper, wider-spread ice over land. Access to the land bridge through Siberia and egress from the bridge into Alaska or Canada would depend on the path not being blocked by glaciers on either end, which may well have happened by the date of the Dispersion that we have selected for the LXX timeline, which would have occurred at the peak of glaciation. The opposite would happen at meltdown. Access to and from the land bridge (no glaciers in the way) might be established only at the expense of higher sea levels, yielding a migration path no farther than the sea shore. Thus, reaching the New World by land bridge seems problematic without the Dispersion happening well ahead of glacial peak, which would exacerbate the problems with settling Europe too soon on the MT timeline, as noted above. That is, arrival before the glaciers means eviction by the glaciers as they peak.

One possible alternative is that the Americas were settled by sea as postulated by Fladmark (1979) and revisited by Braje et al. (2020).¹¹ Reaching the Americas from Asia by sea surely must have been possible. Jeanson

(2021, 133–154) shows evidence from Y chromosome data that the current indigenous population of American Indians arrived in the Americas from Asia sometime near the time of Christ, replacing whoever was residing here at the time. No one, conventional or creationist, believes there was a land bridge to the Americas at the time of Christ. Nevertheless, if the late-comers could have crossed the Pacific (evidently, they did), then those they replaced could have done so as well. Thor Heyerdahl showed that the crossing was possible (Heyerdahl 1948), although his crossing was in the opposite direction. As an alternative to risky open ocean travel, another reasonable hypothesis is that the Asians crossed by coast hugging Beringia, island-hopping the Aleutian chain, or by walking on ice (Jeanson 2021, 145).

Notice also that on the LXX timeline, the model proposed by Snelling and Matthews (2013) poses no impediment to settlement of northern Europe at the times put forward by Griffith and White (2022b, Durations 15 and 16). Under their scenario, the Ice Age would begin c. 2767 BC. The glaciers would be off of northern Europe by 2467 BC, well before settlers arrived on the Griffith and White timeline.

Speculation Migrations and resettlements

The Septuagint scenario above leaves us with the interesting question of why it would take the Germans and the Irish approximately 730–750 years to arrive at their destinations, assuming both parties departed western Asia at Peleg’s birth in 2767 BC. An

¹¹ Conventional geologists (for example, Braje et al. 2020; Fladmark 1979) speculate that this could have happened during the Last Glacial Maximum, but evidence of coastal inhabitation would now be covered by higher sea levels after glacial meltdown, which the scholars cited put approximately 14,000 years before present (YBP) on the conventional timeline. On that timeline, the Bering land bridge would have been exposed beginning about 26,000 YBP. Conventional archeologists posit that Pre-Clovis peoples began to populate the Americas about 20,000 YBP (see for example, Becerra-Valdivia and Higham 2020; Yasinski 2022) ostensibly starting in central Asia c. 45,000 YBP.

alternative is that neither party actually left western Asia at that time, at least not without pausing along the way for many, many years. The witnesses summoned by Griffith and White (2022b, Durations 15 and 16) do not necessarily say that the settlers took a direct route and did not settle somewhere else first except for Tuisto. Otherwise, these migrants could have come from anywhere and left at any time so long as they arrived during or after glacial meltdown, 2698 or after.

Let us consider the possibility of resettlement. The history of Europe is replete with wave after wave of resettlement from the east. Jeanson (2021, 77ff) mentions both the Germanic tribes and the Huns coming from the east during the time of the Roman Empire and documents their genetic impact on European men. We also know of the thirteenth

century invasion of the Mongols (Cartwright 2019). We also have Suomen (Finns) (Lang 2020, 253–255) and Magyars (Hungarians) (Sugar 1990) to account for, both seemingly originating in present day Russia.

We have no reason to believe that these after-migrations were unique. For any number of reasons, the settlers of Trier and Ireland could have been part of a wave of resettlement. Perhaps they were driven out of western Asia, maybe along with many other people, during the expansionist reign of Ninus (reigned c.2189–2137 BC by some accounts; see fig. 9 for the supposed extent of his realm). The career of Ninus¹² is described by Ctesias of Cnidus via Diodorus (Diodorus Siculus n.d.), George Synkellos (Adler and Tuffin 2002), and Sura via Paterculus (Griffith and White 2022b, Duration 6). Grabbe (2003, 121–122) seems to accept these data as reliable. Alternatively,

¹² The regnal dates for Ninus are taken from Ctesias of Cnidus via Diodorus (n.d.) and Castor of Rhodes via Synkellos (Adler and Tuffin 2002). Ctesias sets the beginning of Ninus' reign in 2189 BC, and Castor claims his reign lasted 52 years, yielding the regnal period of 2189–2137 BC. Griffith and White put Ninus' death in 2068 (2022b, Duration 15).

There are at least four versions of who Ninus was, assuming he actually existed at all. The version most familiar to Bible students is that he was the biblical Nimrod, son of Cush. In most modern translations, Genesis 10:11–12 read something like this: "From that land he [Nimrod] went to Assyria and built Nineveh, Rehoboth Ir, Calah, and Resen between Nineveh and Calah (that is the principal city)" (NKJV). Since in the ancient literature cited in this paper Ninus is named as the founder of Nineveh, equating Ninus with Nimrod seems only natural. This was first done perhaps in a romance called *Recognitions*, part of a collection called the *Clementine Literature* (Jones 2014) c. AD 300. If the dates of Ninus' reign are even close to accurate (c. 2189–2137 BC), then Ninus could match Nimrod on the MT timeline only, not on the LXX.

In the King James Version, Genesis 10:11–12 read, "Out of that land went forth Asshur [second son of Shem], and builded [sic] Nineveh, and the city Rehoboth, and Calah, And Resen between Nineveh and Calah: the same is a great city." This reading is supported by the JPS Tanakh 1917 and the Septuagint. It is also attested by Josephus (2018: i, vi, 4) and by *Jubilees* 9:3. This choice also has some logic to it since Asshur seems to be the root word of Assyria, where Nineveh was located and in times past was the locale of a capital city of his own name (Aššur) (Metzger and Coogan 1993, 63–64). However, Micah 5:6 says that Assyria is the land of Nimrod. On the LXX timeline, Ninus could not be Asshur based on the regnal dates above but he could be Asshur on the MT timeline. So Ninus could be Nimrod or Asshur on the MT timeline and neither on the LXX.

The third option is that Ninus was an Assyrian king of later time whose identity was confused into the story. Candidates include Ninurta, Shamshi-Adad I, and Shamshi-Adad V. Of these, the last seems to be attested by a stele erected in Aššur on the Tigris on which his queen, Shammuramat, claims to be Shamshi-Adad's wife (probably his widow at this time), the mother of King Adad Nirari, and daughter-in-law of Shalmaneser (Melville 2014, 233). This woman is believed by some to be the Semiramis who ruled Assyria briefly before abdicating to her son. The circumstances around this king, queen, and prince are suspiciously parallel to the history (or legend) of Ninus and Semiramis told by Ctesias of Cnidus via Diodorus (Diodorus Siculus n.d.), George Synkellos (Adler and Tuffin 2002), and Sura via Paterculus (Griffith and White 2022b, Duration 6); Grabbe (2003, 121–122) echoes the story. However, conventional regnal dates for Shamshi-Adad V are 824–811 BC, and for the Ninus of Ctesias et al. they are 2189–2137 BC. Clearly, Shamshi-Adad V could not be the Ninus of Ctesias et al., the father of Trebeta, unless we move the founding of Trier forward about 1,400 years. Nor could Shamshi-Adad V be Nimrod or Asshur on either the MT or LXX timeline.

The final option is that the Ninus of Ctesias et al. was none of the above but a separate person exactly as described in the ancient sources. This possibility leads to some consternation. If the Ninus of Ctesias et al. were a real person, he could be either Nimrod or Asshur on the MT timeline but neither on the LXX. On the LXX timeline, both Shem and Cush died too soon to father a son who became king in 2189 BC. Biblically, therefore, placing this Ninus on the LXX timeline means he cannot be the founder of Nineveh since he would be neither of the biblical candidates for that role. On the other hand, the alleged historical facts of this Ninus' life defy explanation consistent with the MT timeline.

The reputed territory this Ninus conquered in western Asia (see fig. 9) far exceeds what could be the bounds of settled habitation within a few years of the Dispersion, which is calculated at 2192/1 BC by Griffith and White (2022b). Pushing the Dispersion back to Peleg's birth in 2247, a mere 55 years, would help little in this regard. At either time, there probably would not have been an Arabian king to assist Ninus in his conquests. He would not have had 2,000,000 men (exaggerated or not) to mount an attack on Bactriana. Bactriana, which was in northwestern modern day Iran, would not have been populated sufficiently to provide a fruitful opportunity for conquest. Ninus' widow Semiramis supposedly made war on Stabrobates of India, another conquest of at most an incipient nation which would have consisted at that time of some few hundreds of people. If he existed, there had to be a world for Ninus to conquer. The population that his story demands only could have developed by 2189–2137 BC with an earlier start, such as under the LXX timeline.

The historicity of this Ninus described by Ctesias et al. is certainly questionable. Ctesias claimed that as court physician to Artaxerxes II (reigned 405–358 BC over the Achaemenid Empire based in Persia), he had access to royal historical records (Grabbe 2003, 121–122). His is probably the earliest testimony to this Ninus. While his writings have not gone uncriticized (for example, Lucian n.d., 2.31), the other sources cited seem to validate this Ninus from other records. If he existed and was not Nimrod or Asshur, which seems at least possible to this author, then this Ninus was not the founder of Nineveh (either Nimrod or Asshur was per Scripture), although ancient sources seem to require it. Perhaps he got credit he did not deserve for founding Nineveh because his name was similar, or maybe he founded a "different" Nineveh in another location.

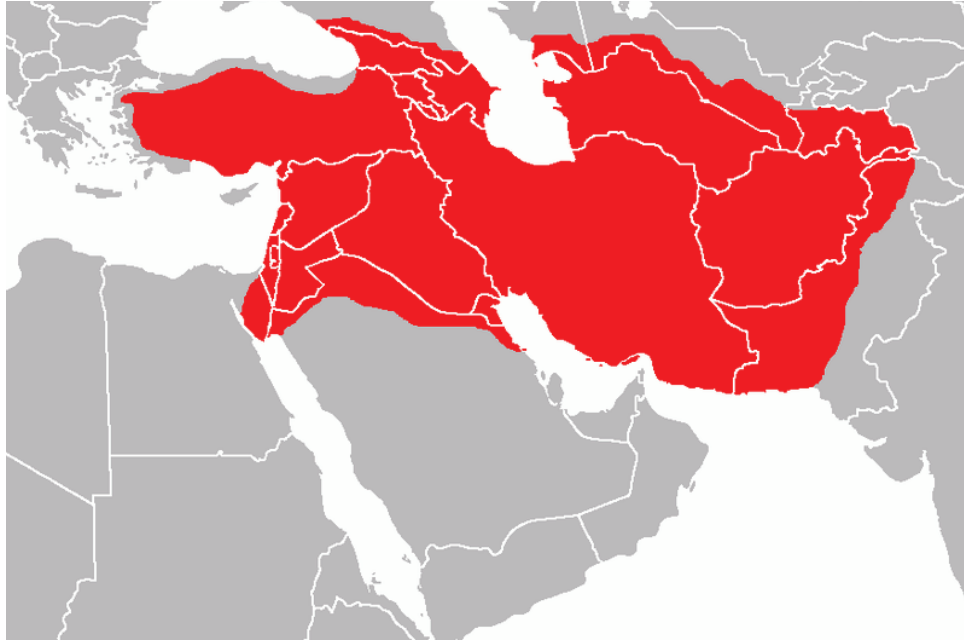


Fig. 9. Possible extent of Ninus' empire c. 2137 BC. Busterolf666, <https://commons.wikimedia.org/wiki/File:Ninus.png>, GNU Free Documentation License.

the northern European settlers could have been the northernmost of the previously dispersed tribes, and then they were driven even further north by refugees fleeing hardships elsewhere, that is, a domino effect.

This scenario just painted regarding Ninus could be used to justify the date of Dispersion calculated by Griffith and White just as well by equating Ninus to Nimrod or Asshur (see notes). However, we have already noted above that the Altura Glacier may have been up to 1 mi thick over Germany at the time when settlement would have to occur (2053 to 2035 BC). That is, if the post-Flood Ice Age started in 2347 BC and proceeded as Oard posits, then settlers leaving western Asia c. 2191 BC would not have reached Trier, and probably not Ireland, until 1747 BC earliest. On the other hand, if the Deluge happened c. 3298 BC as on the LXX timeline, then part of a mass exodus from western Asia (or from anywhere else, for that matter) c. 2191 BC very easily could push people into Trier and Ireland 150 years later because the glaciers would be gone, and the Germans very well could have been closely descended from a Ninus through a disaffected son, Trebeta (Adler and Tuffin 2002; Diodorus Siculus n.d.; Duncker 1882; Griffith and White 2022b, Duration 15); that is, a Ninus other than Nimrod or Asshur (see end notes).

Glaciers and Cave Dwellers

Unless the traditions of Trier or Ireland contradict it, some people could have arrived and settled northern Europe during or very shortly after the meltdown on the LXX timeline and settled at the edge of the receding glaciers. Early settlers also

could have migrated to Europe before glacial peak, who then were pushed out by glacial advances. In either case, they could have been joined by re-settlers (perhaps Griffith and White's Germans and Irish) any time thereafter and been absorbed or driven out. Some candidates for first wave settlers that come to mind are the Neanderthal people. (See Oard [2003; 2021a] and Robertson and Safarti [2003] for updates on their rehabilitation.) The *Neandertal*, a valley in North Rhine-Westphalia, Germany, is just barely inside the limits of the LGM (see fig. 3), so it could have been settled first wave very quickly after meltdown began, depending on the actual limits of the post-Flood glaciation.

If the Neanderthal people settled before the peak of glaciation, what we see in their dwellings are human remains left behind as the living were driven further south by glacial advances. This scenario is painted by Jordan (2024; citing Lubenow 2004, 263; Oard 2003, 217), who states,

The most ancient human remains found in Europe belong to the Neanderthals, who fled from Babel to Western Eurasia and the plains of Northern Europe. There they lived as hunter-gatherers following the Pleistocene herds of mammoths and red deer while the advancing glaciers of the Ice Age forced them south into France and Spain.

On the other hand, some state that non Neanderthal human remains occur below them in the fossil record wherever Neanderthal remains are found (Snelling and Matthews 2012), which would make Neanderthals second wave settlers perhaps where their remains are found below others.

We should consider under these assumptions when and where the Neanderthal people would have lived in caves. The Neanderthal people lived in many places in the Old World, but here let us restrict the conversation to those living in caves in northern Europe. Note our discussion above on the impossibility of settling on glaciers, which points out that there is no liquid water, game, fuel, or vegetation on a glacier, and glacial travel is potentially deadly—a glacier is uninhabitable. Therefore, cave dwellers could not have survived even in caves if *on* the glaciers or surrounded by them. However, as previously discussed, they could manage on the *edge* of glaciers where they could hunt and fish. As noted, the *Neandertal* (Neander Valley) is situated on the edge of the hypothesized LGM extent of the Weichsel Glacier. Building materials could be scarce on the edges of glaciers (trees do not grow well on tundra), and stone-dressing tools might not have been robust enough (granite is much harder to dress than the sedimentary rock found in western Asia), so cave dwelling seems like a viable alternative to constructed housing.

Floods

Habermehl argues for an Ice Age on the LXX timeline that lasted at least until c.2350BC (Habermehl 2011; 2013; pers. comm. January 25, 2024) at which time meltdown flooding began to be noticed and recorded by ancient peoples. See fig. 10 for one possible depiction of her model. This would be a modest deviation from Oard's model. Habermehl posits that the Ice Age began later than Oard's model but was over before the Sojourn in Egypt. The implication of her model for settlement is that no one

could have settled Trier or Ireland before c.2350BC unless they arrived before glaciation peaked, and then they would have been driven off by glaciers until the meltdown. At c.2350BC or after, a wave of settlement could have arrived and stayed. In any case, a second wave of resettlements arriving c. 2050BC seems possible on Habermehl's timeline.

In Habermehl's model, water from glacial meltdown could have been responsible for multiple ancient water events in the 2350BC time frame. Unreported events (not found in ancient literature) could include those associated with the Grand Canyon (Austin, Holroyd, and McQueen 2020; see Oard (2021b) for a disputation), Lake Missoula (Bretz 1923; Waitt 1985), and Lake Bonneville (Jarrett and Malde 1987), just to touch on North America. Events possibly associated with the Holocene Transgression (Oppenheimer 1998), which would be a contemporary event with the meltdown, include Ogyges Flood in Greece (Africanus n.d.: 10.10; Weaver et al. 2003; Africanus dates Ogyges Flood to this timeframe while other ancient witnesses place it about 600 years later). Meltdown could explain the forming of the Nile Delta, the Tigris/Euphrates delta that became Lower Mesopotamia, and other river deltas (Habermehl 2013; Oard 1990). Reported water events for which there is explicit testimony that possibly could fit this paradigm include Ogyges Flood in Greece and the Gun-Yü Flood in China (Legge 1865, 105–188; Ssuma Ch'ien [Sima Qian] 86BC/1994 passim; Waltham 1971 passim).

Conclusion

To summarize, consider that we made the following assumptions:

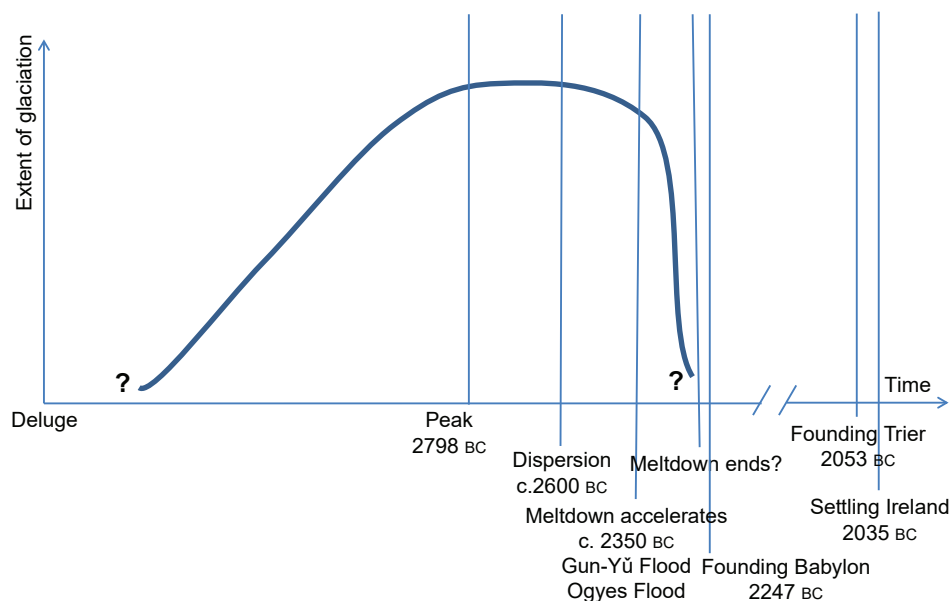


Fig. 10. Another possible scenario on the LXX timeline.

- A. Proposition A: Conventional scientists and creationist scientists agree on *where* glaciers once covered portions of the earth.
- B. Proposition B: Oard's model asserts *when* the glaciers came and went relative to the end of the Flood.
- C. Proposition C: Griffith and White assert when northern Europe, in part, was settled.
- D. Proposition D: The Flood, start of glaciation, and Dispersion happened according to the Masoretic Text timeline.

Based on those assumptions, we find that something does not add up. If the glaciers happened where we believe and at the time Oard asserts, then it is very unlikely that the settlement of Trier and Ireland occurred at the stated times. What are the alternatives?

1. The glaciers were not exactly where we think they were. It is possible that Trier and Ireland were ice-free when the proposed settlements took place, even if there was ice elsewhere.
2. Oard's model does not describe exactly when the glaciers came and went. His model can be parameterized to make settlement possible at the times contemplated.
3. Trier and Ireland were settled at a later time, after glaciers had receded from northern Europe.
4. The Flood, the start of glaciation, and the Dispersion occurred at an earlier time, perhaps according to the LXX timeline.

Under the assumptions made here, simple arithmetic shows that the Oard model for the Ice Age most likely is not compatible with the Masoretic Text and secular settlement traditions for northern Europe without substantial changes to the parameters of the model, such as extreme shortening of glacial duration. Using the Septuagint timeline, Oard's model can be aligned both with the text of Genesis and with the cited settlement traditions without alteration. The combination of the Septuagint timeline with other assumptions regarding the timing of the Ice Age can lead to some interesting challenges regarding post-Flood settlement of both the Americas and Europe, and possible watery events c.2350BC.

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