

5.2. The Earthquake in Amos 1:1 and the Iron Age Chronology in Galilee¹

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5.2.1. Introduction

The book of Amos starts with an interesting chronological information:

1:1 The words of Amos, who was among the shepherds of Tekoa, which he saw concerning Israel in the days of Uzziah king of Judah and in the days of Jeroboam the son of Joash, king of Israel, two years before the earthquake.

This verse allows for some approximate reconstruction of the time when Amos lived. Many scholars date the reign of Uzziah between 787 and 736 BCE, while Jeroboam II ruled between 787 and 747 BCE. The congruent regnal years are from 787 to 747 BCE, but a precise dating of Amos' activities is currently not possible. Generally, most scholars consider the 760s or 750s as the most likely years.

Of great interest is the third chronological note in Amos 1:1: the earthquake. This earthquake seems to have been relatively heavy given that people still remembered it hundreds of years later in Zechariah 14:5. It must have been an influential factor in the corporal memory of people.

For a long while the catalogue of earthquake activities presented by DAVID AMIRAN was the basis for all research in this regard.² Several scholars added additional events to this list.³ Some of the early absolute age datings mentioned in this list are not convincingly attested in historical texts. All the texts collected by AMIRAN and others must be studied once again in order to prove if the mentioned seismic activity really happened or if it is attested only in a rather mythic text. Much more work has to be done in the future to ascertain the chronology of these absolute datings,⁴ although the lists that are currently presented are very useful. Additionally, they cover a wide range of seismic activities from Egypt over to Palestine and Syria to Anatolia and Cyprus, and not all mentioned activities affected the entirety of those regions.

Earthquakes mentioned in ancient texts can be connected with destruction levels on archaeological sites.⁵ However, it is challenging to link a destruction to an earthquake. Fallen walls may be connected with an earthquake but they can also be connected with hostile attacks. Only in few cases is the link to an earthquake really convincing. In other cases, the connection with seismic activities is more or less probable but a definitive proof is missing.

In 1992 DEVER collected some archaeological data and destruction layers as proof for the earthquake of Amos 1:1.⁶ He found several destruction layers which can definitely be connected with an earthquake, while other layers could possibly be connected with military attacks. Some other sites like *Tell el-Mutesellim/Megiddo*⁷ and *Tell es-Şāfi/Gath*⁸ were added. While DEVER conducted his research for destruction levels in all of Palestine and connected archaeological records in *Tell el-Qedah/Hazor*, *Tell ed-Duwēr/Lachish*, and *Tell Ğezer/Gezer* with the seismic activity mentioned by Amos, FANTALKIN and FINKELSTEIN observed that most of the destruction levels caused by earthquakes can be found in the northern part of the country.⁹

5.2.2. Earthquake Activities According to Geological Research

In the last several years, some drill-holes, especially in the area of the Dead Sea, produced additional results concerning earthquakes. The last list of these seismic events is only a few years old.¹⁰ Trusting in these absolute dates,

¹ This chapter is based on ZWICKEL 2015. The paper is not only translated, but also updated, partly shortened, and partly enlarged.

² AMIRAN 1994; AMIRAN 1996.

³ RUSSELL 1985; SBEINATI 2005; SALAMON et al. 2007; KAGAN 2012, 51–54.

⁴ Cf. WITKE 2006.

⁵ Cf. the summary of the archaeological evidence in RAPHAEL/AGNON 2018, 773–777.

⁶ DEVER 1992.

⁷ MARCO et al. 2006.

⁸ MAEIR 2012; RAPHAEL/AGNON 2018.

⁹ FANTALKIN/FINKELSTEIN 2006.

¹⁰ KAGAN et al. 2011.

the results for the 8th century are really surprising. There was evidently not one but two earthquakes in this century!¹¹ This research team dates the first earthquake according to C¹⁴-analysis between 861 and 705 BCE, while the second one is dated between 824 and 667 BCE. There exists no information about the time lag between the two events. Another team working in the Bet Shan-valley also observed two earthquakes but dated them about 100 years later.¹²

STEVEN A. AUSTIN, a prominent geologist and specialist in seismic activities from Penn State University, studied the archaeological results. Admittedly, he presumed that only one earthquake existed in the 8th century BCE. However, he concluded that this seismic event had its center in present-day Lebanon and reached a magnitude of at least 7.8, or even possibly 8.2.¹³ This means that the earthquake was rather strong. As a comparison, the strongest earthquake in Palestine within the last two centuries, the so-called Jericho earthquake of 1927, only reached a magnitude of 6.3. In 1927 more than 300 houses were destroyed, 130 people were killed in Jerusalem, and another 150 in *Nablūs*. This earthquake also caused damage to the Church of the Holy Sepulchre and the al-Aqsa-Mosque, both in Jerusalem.

Unfortunately, sites in the Lebanese territory have not been well explored. Further archaeological research in Lebanon will definitely produce more data for this thesis. Most of the Lebanese Iron Age excavations, such as those in *Ġubēl/Byblos*,¹⁴ Beirut,¹⁵ *Saidā/Sidon*,¹⁶ or *Šūr/Tyre*¹⁷ only go back to the 8th century BCE. In *Šara-fand/Sarepta* the change of the layout of the urban planning in the 8th century BCE could be caused by some destructions produced by an earthquake.¹⁸ The Iron Age site of *Tell el-Burak* was likely only established after this earthquake.¹⁹ On a textual basis one may suppose that the absence of Sidon in texts from the period of Tiglath-Pileser III may be connected with heavy destructions in this town which may have lost its dominant role for some decades to *Šūr/Tyre*. But this is pure speculation and needs further archaeological activities in Sidon.

5.2.3. Historical Information About Destruction Levels in Northern Israel

Until now archaeologists like DEVER and others searched for proofs for the authenticity of the earthquake mentioned in Amos 1:1. Accepting the natural scientific results of the Dead Sea, that there definitely were not only one but two earthquakes in this period and accepting the thesis of AUSTIN that at least one very heavy earthquake had its center in Lebanon, we do not have to prove anymore that the chronological data of Amos 1:1 is correct. Instead, we can use these data as a basis for the interpretation of the destruction levels in northern Palestine, especially in Galilee and its surrounding regions, the coastal area, and the area of the Sea of Galilee. This changes the situation. One should not see archaeology confirming the Bible anymore but rather see a possible connection between the biblical reference and other evidence. Geological research has proven the reliability of an earthquake in the 8th century BCE. Accepting the fact that there was an earthquake in the middle of the 8th century with a center in present-day Lebanon, we can connect destruction levels in northern Palestine with this seismic activity. This allows a much more precise dating for many sites. As far as we know, two earthquakes are only attested within *Tell Dēr 'Allā*. The first one, destroying Phase IX (= M), was combined by the archaeologists with Amos 1:1,²⁰ the second one (Phase VII) dated archaeologically some decades later caused the interim abandonment of the site.²¹

Nevertheless, earthquakes are not the only thing that are behind destruction observed in archaeological excavations. The 8th century is a period of Assyrian dominance with some campaigns against Syria and Palestine. Therefore, we also have to check all these campaigns to determine if there is data to support possible hostile destructions in northern Palestine.

¹¹ KAGAN et al. 2011, 8.23–25.

¹² ZILBERMAN et al. 2004.

¹³ AUSTIN 2000; but cf. the critical remarks in KAGAN 2012, 49.

¹⁴ FINKBEINER 1981; HOMSY 2003.

¹⁵ BADRE 1997, 72–90; FINKBEINER/SADER 1997.

¹⁶ DOUMET-SERHAL 2000, 112–114; DOUMET-SERHAL 2003, 195–204; DOUMET-SERHAL 2004, 78–80; DOUMET-SERHAL 2006, 159–162.

¹⁷ Small amount of finds in BIKAI 1978; mainly tombs cf. AUBET 1998/9; AUBET 2004.

¹⁸ PRITCHARD 1978, 82–84.

¹⁹ The final report of the Iron Age remains at *Tell el-Burak* is not yet published, but the excavators date the Iron Age settlement from the late 8th to the 4th century BCE; cf. KAMLAH/SADER 2010, 97.

²⁰ VAN DER KOOIJ 1993, 340–341.

²¹ PETIT 2009, 28–29.

- 805–802, 796 BCE: Campaigns of Adadniraris III with tributes of Tyre, Sidon and Israel;²² according to the chronicle of the eponyms²³ no destructive campaign happened; the three states rather payed their tributes voluntarily without a destructive Assyrian campaign.
- 738 BCE: Payments of tributes²⁴ of Tyre and Israel to Tiglath-Pileser III without a destructive campaign; all conquered towns mentioned for this campaign are situated outside of Galilee.²⁵
- 734 BCE: During a campaign against Gaza the territory of Israel was crossed, but evidently the Israelites allowed the Assyrians to cross without acts of wars.²⁶
- 733 BCE: Assyrian campaign against the Arameans but evidently the territory of Galilee was not touched.²⁷
- 732 BCE: On the way to attack Ashkelon the Assyrians passed through Galilee and deported inhabitants of the Galilean sites of Hannaton, Aruma, Marum and other towns.²⁸ Likely, these deportations were connected with hostile attacks and destructions of many Galilean sites.
- 727 BCE: Possible conquest of Samaria by Shalmanassar V.²⁹ If he did so, his troops crossed the Galilean territory. After the campaign of 732 BCE, Galilee was under Assyrian control and not able to resist the superior Assyrian army.
- 722 BCE: Conquest of Samaria by the troops of Sargon II and Shalmanassar V;³⁰ most likely Galilean towns were not able to stop the Assyrian army which probably passed without any military attack through this area.
- 720 BCE: The Assyrians under Sargon II put down a rebellion with the participation of the people of Samaria and continued to march against the Philistines.³¹ Evidently, this campaign touched only the city of Samaria and its surrounding territory.
- 716 BCE: Campaign of Sargon II as far as the Egyptian border, but no campaigns in the area of Galilee are reported.³²
- 711 BCE: Campaign of Sargon II against Ashdod;³³ the Assyrian army crossed Galilee evidently without any military attacks against the settlers there.
- 701 BCE: Campaign of Sennacherib against Sidon, the Phoenician towns of Bet-Zitti, Sarepta, Mahaleb, Usu/Hosa, Akhzib, Akko and further on against the Philistines and against Judah.³⁴ His troops marched along the Mediterranean coast and only touched the Galilean territory, although sites like Akhzib and Akko were likely destroyed by the Assyrians.

The analysis of all literary texts mentioning Assyrian campaigns against the southern Levant demonstrates that there were plenty of possibilities for destructions, but in most cases the Assyrian army crossed the country without any local resistance. The weakened towns were not able to withstand the strong, well trained, and well organized Assyrian army. Based on the general political situation, cooperation with the Assyrians was more beneficial than resistance. Only during the years (734–)732 BCE and (specifically in an area along the Mediterranean coast) in the year 701 BCE can it be attested or probable that the destruction layers were caused by the military actions of the Assyrians.

Regarding excavations of Iron Age sites in northern Palestine we therefore have to assume that only two or three destruction levels exist for the 8th century BCE:

Ca. 760/750 BCE	Destruction level caused by the earthquake mentioned in Amos 1:1
(734–) 732 BCE	Destruction level caused by the Assyrian troops conquering Galilee and parts of ancient Israel
701 BCE	Destruction levels on sites along the Mediterranean coast

Table 5.2.1. Possible destruction levels during the 8th century BCE.

²² WEIPPERT 2010, 274 Nr. 121. 275 Nr. 122.

²³ WEIPPERT 2010, 273 Nr. 120.

²⁴ WEIPPERT 2010, 288–291 Nr. 140; 2 Kings 15:19–20.

²⁵ Cf. WEIPPERT 2010, 291 Nr. 141.

²⁶ WEIPPERT 2010, 292 Nr. 142; for the events of the years 734–732 BCE mentioned in the Bible cf. DONNER 1964.

²⁷ WEIPPERT 2010, 292–293 Nr. 143.

²⁸ WEIPPERT 2010, 293–294 Nr. 144.

²⁹ WEIPPERT 2010, 300–301 Nr. 150.

³⁰ WEIPPERT 2010, 301–302 Nr. 151–152; 2 Kings 17:5.

³¹ WEIPPERT 2010, 303–304 Nr. 154.

³² WEIPPERT 2010, 305 Nr. 157; cf. Is 20.

³³ WEIPPERT 2010: 306–309 Nr. 160–163; Is 20.

³⁴ WEIPPERT 2010, 329–334 Nr. 181–182; 2 Kings 18,7; Jes 18; 22:1–14; 30:1–5; 31; cf. 2 Kings 18–20/Is 36–39.

At least in some cases hostile activities in the years (734–) 732 BCE can be proven by a considerable amount of military items such as arrowheads that were found in the debris of the destruction levels. In a few cases seismic activities are attested by fallen walls or the displacement of walls. But even without such markers, destruction levels of 8th century sites in Galilee can be attributed either to seismic (ca. 760/750 BCE) or hostile activities (732 BCE or in few cases even 701 BCE). If the earthquake was nearly as strong as assumed by AUSTIN, every site in northern Palestine must have been destroyed by this seism. Doing so, we get more exact datings for the destruction levels and additionally we learn more about political activities during this period. Which sites were built up again after the earthquake? Which sites were kept destroyed and were abandoned? Are there any commercial interests visible after the earthquakes destruction?

Earthquakes and – to a less extent – many hostile attacks were horrible for the inhabitants affected by them, but have one advantage for archaeologists: the destructions are all simultaneous and therefore the sites are easily comparable. Additionally, after an earthquake, rulers had to spend money for recovery programs. These programs allowed the rulers to develop new commercial and/or political initiatives for their country. In the second part of the paper we will discuss the main excavated sites settled during the 8th century.

5.2.4. Sites in northern Israel and their destruction levels

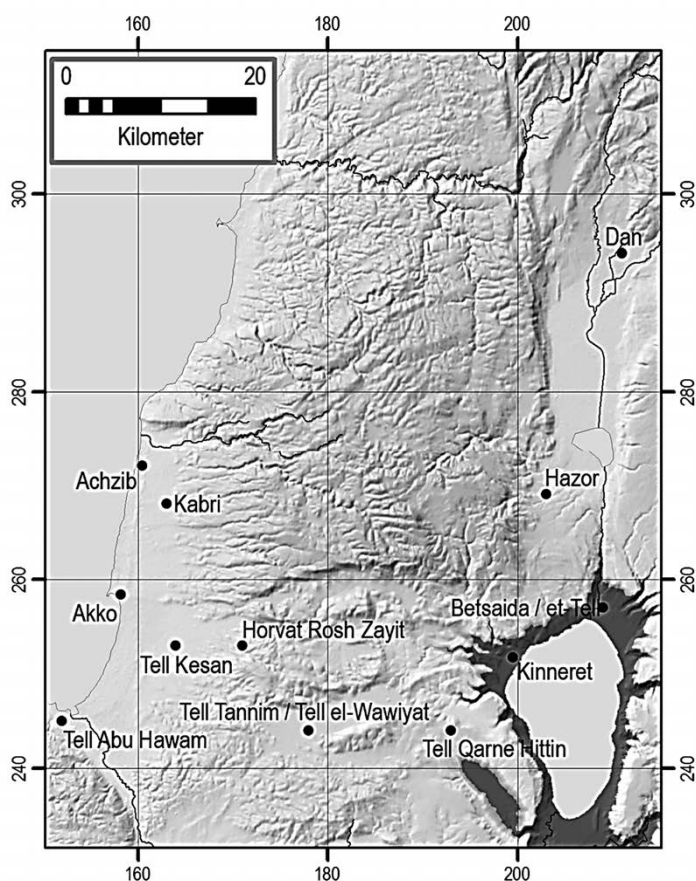


Fig. 5.2.1. Archaeological sites in Galilee mentioned in the text.

5.2.4.1. *ez-Zib/Akhzib*

For the most part only the tombs from this important harbor site are published.³⁵ Having no destruction levels these reports are not meaningful. The excavations on the *tell* directed by M. PRAUSNITZ were never fully published but were re-studied in the last years.³⁶ The authors propose that a building in Area D was originally used as a private house but later changed into a storage building. The house was in use from the late 8th century BCE (at the earliest) until the early 6th century. Therefore, it was likely built after the Assyrian conquest of the area and definitely after the earthquake in 760/750 BCE.

³⁵ MAZAR 2001; DAYAGI-MENDELS 2002; EDREY et al. 2018.

³⁶ YASUR-LANDAU et al. 2016.

5.2.4.2. *Tel Kabri*

The Iron Age settlement was only touched in Area E,³⁷ but the excavation area was rather limited. The authors proposed the following chronology:

Stratum	Period	Description	Chronology of the excavators	New proposal
E4	Iron Age II	Floor	850–750 BCE	850–760/750 BCE
E3	Iron Age II	Fortress with casemate walls	750–680 BCE	760/750–680 BCE
E2	Iron Age II	Rebuilding of the fortress	2 nd part of 7 th century BCE	2 nd part of 7 th century BCE

Table 5.2.2. Stratigraphy at *Tel Kabri*.

The interesting transition is from Stratum E4 to E3. In Stratum E3 only few remains of the casemate wall were discovered, in Stratum E4 there existed only a floor. Among the pottery of E4 are Phoenician and Tyrian sherds dating to the middle of the 9th century.³⁸ Evidently, there is no definite proof for the end of this stratum. Tentatively it will be connected with the earthquake mentioned in Amos 1:1. The new excavations in 2017 discovered a large Iron Age IIB/C structure but the excavators are hesitant to present absolute dating.³⁹

5.2.4.3. *Tell el-Fuḥḥar/Akko*

The excavations of *Tell el-Fuḥḥar*, directed by M. DOTHAN and partly by D. CONRAD, are nearly unpublished. Nevertheless, DOTHAN published a chronology of the site in some dictionaries (DOTHAN 1992; 1993). Our research on the material excavated by CONRAD clearly showed that this chronology is mainly (or exclusively) based on a history of events mentioning the site of *Tell el-Fuḥḥar* and not on the archaeological material. DOTHAN's proposal and some corrections can be seen in the following table:

Stratum	Areas	Description	Chronology of DOTHAN	New proposal
8	A	Town with a destruction layer, connected by DOTHAN with a conquest by Tiglath-Pileser (732 BCE).	Iron Age II – 732 BCE	– 760/750 BCE
7	A, C, K, H	Renewed building activities in areas A (erection of a public building), H (wall, perhaps a casemate wall), A and K (living quarter with industrial activities). According to this settlement was destroyed by Sennacherib in 701 BCE.	Iron Age II (late 8 th BCE)	760/750 – 701 BCE
6	H, A, C, K	Metal industry on top of the <i>tell</i> . Rebuilding of the wall in area H; living and industrial quarter in Areas A and K; possible erection of a defensive building in area K. DOTHAN connected the destruction with the activities of Ashurbanipal.	Iron Age II (early – middle of the 7 th century BCE)	700 –

Table 5.2.3. Stratigraphy at *Tell el-Fuḥḥar/Akko*.

It is important to note that not a single historical text mentions a destruction of Akko by Tiglath-Pileser. Therefore, the tentative dating of the end of stratum 8 is open for discussion. Only a careful comparison of the pottery forms will allow us to date stratum 8. At the present state an attribution of this stratum to a destruction layer connected with the earthquake seems comprehensible.

³⁷ LEHMANN 2002, 74–87.181–219.

³⁸ Cf. *Šūr*/Tyre Stratum 12; BIKAI 1978, 66–67.

³⁹ YASUR-LANDAU et al. 2017.

5.2.4.4. Tell Kēsān

The French excavations discovered the following Iron Age II layers:⁴⁰

Stratum	Period	Dating by the French excavators	New proposal
8	Iron Age II	10 th century BCE	10 th century BCE
7	Iron Age II	900–850 BCE	900–850 BCE
6	Iron Age II	850–800 BCE	850–800 or 760/750 BCE
Gap			
5	Iron Age III	721 – ca. 700 BCE	721 – ca. 700 BCE
4	Iron Age III	7 th century – 643 BCE	7 th century – 643 BCE

Table 5.2.4. Stratigraphy at *Tell Kēsān*.

Stratum 9 was destroyed around 1000 BCE. The poor settlement of stratum 8 re-used the surviving walls of stratum 9. New Assyrian and Assyrianized pottery was not found before stratum 5. Therefore, the excavators assume that this stratum started with the Assyrian epoch in 721 BCE and lasted only few decades until around 700 BCE. There was a gap in settlement history between strata 6 and 5. Stratum 6 yielded only a very limited amount of pottery, likely demonstrating that this stratum had a rather short time span. On the other hand, pottery types of strata 6 and 7 are very similar and both should be connected with the 9th century BCE. Even though the excavators propose an end of stratum 6 around 800 BCE, an end of this stratum around 760/750 BCE due to an earthquake might be possible. Hopefully, the restarted excavations at this site will offer new and more concrete results.

5.2.4.5. Tell Abū Hawām

There exist several excavations at this site. The newer ones corrected the old results published by HAMILTON. The table presents the actual chronological data for this site:⁴¹

Stratum	Period	Description	Dating of the excavators	New proposal
Vc	Late Bronze Age IIB/Iron Age IA	Resettlement	13 th /12 th century BCE	13 th /12 th century BCE
IVa	Iron Age IB	Three-rooms-houses	11 th century BCE	11 th century BCE
IVb	Iron Age I/IIA	Public building	11 th /10 th century BCE	11 th /10 th century BCE
IIIa	Iron Age IIA	Fortified town	10 th century BCE	10 th century BCE
IIIb	Iron Age II(A) B/C	Reorganization of the town layout	10 th – late 8 th century BCE	10 th century – 760/750 BCE
Gap until the 5 th century BCE				

Table 5.2.5. Stratigraphy *Tell Abū Hawām*.

The site is very close to the Lebanon. This supports the proposal to combine the end of the settlement in the 8th century with the earthquake. Evidently, the site was unimportant for the future Phoenician economic strategies; therefore there were no rebuilding activities after the destruction by the earthquake.

5.2.4.6. Rās ez-Zētūn/Horvat Rosh Zayit

The fortress was already abandoned in the early 9th century BCE.⁴² There was continuing settlement activity at the site with a focus on the olive industry but the settlement has not been satisfactorily explored until now.

⁴⁰ Based on BRIEND/HUMBERT 1980, 131–196 with corrections in HUMBERT 1993, 866; the new American excavations are not intensively published as of yet.

⁴¹ Based on ARTZY 2008, 1555.

⁴² GAL/ALEXANDRE 2000.

5.2.4.7. *Tell Qarnē Hiṭṭān*

The fortress at this site was destroyed in the 13th century BCE. The nearby settlement was settled from the 10th to the 8th century BCE.⁴³ It is quite possible that this site was not destroyed in 732 BCE, as the excavators claim, and it was rather destroyed in 760/750 BCE.

5.2.4.8. *Tell el-Qāḏī/Dan*

The Iron Age II chronology of *Tell el-Qāḏī/Dan* is very problematic. The final publication for this period is still in preparation. The excavator AVRAHAM BIRAN published a chronological system primarily based upon his ideas concerning the history of the region, but presently it has yet to be controlled by a careful pottery analysis:⁴⁴

Stratum	Description	Chronology based on the excavator	New proposal
VI	Silos and pits	First half of the 12 th century BCE	First half of the 12 th century BCE
V	Simple settlement, violently destroyed	11 th century BCE	11 th century BCE
IV	Cultural continuity, re-use of the buildings of stratum V	10 th and early 9 th century BCE	10 th and early 9 th century BCE
III		2 nd half of 9 th century and 1 st half of 8 th century BCE	2 nd half of 9 th century – 760/750 BCE
II		2 nd half of 8 th century BCE – 732 BCE	760/750–732 BCE
I		Later settlement activities	

Table 5.2.6. Stratigraphy of *Tell el-Qāḏī/Dan*.

Although further studies on the pottery are needed, the proposed date for the end of stratum III fits excellently with the assumed earthquake destruction. However, nothing is published about any proofs for seismic destructions at this site.

5.2.4.9. *Tell el-Wawiyat/Tel Tannīm*

The excavations at this site situated in the Huleh valley are not finally published.⁴⁵ Evidently, the site was settled in the 10th and 9th century BCE, followed by a gap in the 8th century and a resettlement in the 7th century. Currently, the data from this site is not accurate enough for further discussions.

5.2.4.10. *Tell el-Qedah/Hazor*

Hazor is the most important site for our discussion. The site has been carefully excavated and the excavators found proofs for seismic activities responsible for the end of stratum VI. Nevertheless, there is a heavy discussion about absolute chronology at this site, connected with the debates on High and Low Chronology. On the one hand AMNON BEN-TOR presented a slightly revised chronology based mainly on the proposal of YIGAEL YADIN,⁴⁶ on the other hand ISRAEL FINKELSTEIN lowered the absolute chronology.⁴⁷

Despite the controversy concerning the 10th and 9th century, both BEN-TOR and FINKELSTEIN agree in dating strata VI and V and accept an earthquake was responsible for the destruction of stratum VI.

⁴³ GAL 1992: 44–47.

⁴⁴ BIRAN 1993; 1994.

⁴⁵ Cf. as a preliminary publication AVSHALOM-GORNI/GETZOV 2008.

⁴⁶ BEN-TOR 2012, 3.

⁴⁷ FINKELSTEIN 1999.

Stratum	Description	Dating High Chronology (excavators of Hazor)	Dating Low Chronology (FINKELSTEIN)
Xb–Xa	Casemate-wall, city gate, living quarter	Mid to late 10 th century BCE	Early 9 th century BCE (Omrides)
IXb–IXa	Modification phase with some continuity to stratum X	End of 10 th – early 9 th century BCE, destroyed by Ben-Hadad I	First half 9 th century BCE (Omrides), destroyed by Hazael ca. 835 BCE
VIIIb–VIIIa	New layout of the town, but casemate-wall and gate were kept; new living quarter above the Late Bronze Age palace remains	9 th century BCE (Omrides)	Late 9 th century BCE
VIIIb–VIIIa	Expansion of the town layout of Stratum VIII	9 th century BCE	End of 9 th century BCE, destroyed by Joash or Jerobeam II
VIc–VIa	Small changes compared to Stratum VII	Early 8 th century BCE, destroyed by earthquake	Early 8 th century BCE, destroyed by earthquake
Vc–Va	More living houses than administration buildings compared to older strata	Ca. 760–732 BCE, destroyed by Tiglath-Pileser III	Ca. 760–732 BCE, destroyed by Tiglath-Pileser III

Table 5.2.7. Stratigraphy of *Tell el-Qedah*/Hazor.

5.2.4.11. *et-Tell*/Betsaida

The absolute chronology of this site is – despite several pre- and final publications – still partly dubious. Actually, the excavators propose the following chronological frame:

Stratum	Description	Period	Dating by the excavators	New proposal
6a, 6b	Bit-Hilani-palace, city gate, wall, grain storage	Iron Age IIA	950–850 BCE	950–850 BCE
5a, 5b	Massive town walls, re-use of palace	Iron Age IIB	850–732 BCE	850–760/750 BCE 760/750–732 BCE
4	Sparsely settled, few buildings	Iron Age IIC	732 – 6 th century BCE	732 – 6 th century BCE

Table 5.2.8. Stratigraphy of *et-Tell*/Betsaida.

Several weapons found in the gate area in combination with typical pottery of the 8th century BCE are markers for the conquest of this site by the Assyrians in 732 BCE. Of specific interest is the subdivision of stratum 5. This subdivision is mentioned in older publications but not in the final report of the gate area.⁴⁸ It was observed at the northwestern and the northeastern tower, which both were strengthened during stratum 5 (personal communication RAMI ARAV). The pottery of both sub-strata is the same, meaning that phase 5a had only a relatively limited time-span. To understand this phase as a stabilization phase after an earthquake is at least a comprehensible proposal. Maybe some damages after the earthquake were repaired by supporting walls.

5.2.4.12. *Tell el-'Orēme*/Kinneret

The prominent Iron Age I settlement of Kinneret (strata VI–IV) was abandoned by the Iron Age I settlers during the 2nd part of the 10th century BCE.⁴⁹ After a short gap in habitation the acropolis was used in the 9th century BCE as a military lookout (stratum III).⁵⁰ During the 8th century a new, well-fortified small site, with only 0.75 ha in size, was rebuilt on the acropolis (stratum II). Arrowheads demonstrate that the Assyrians conquered this site in 733/732 BCE. There is no indication for any destruction or reparation during stratum II prior to the destruction by the Assyrians. Therefore, the site seems to have been unaffected by the earthquake or it was only built after the earthquake.

⁴⁸ ARAV 2009.

⁴⁹ PAKKALA u.a. 2004. Cf. also the discussion in this volume about dating the non-Iron Age I-strata.

⁵⁰ FRITZ 1990.

Stratum	Description	Dating by the excavators	New proposal
VI–IV	Large Iron Age I settlement	12 th – 10 th century BCE	12 th – 10 th century BCE
Gap			
III	Fortress/Lookout	9 th century BCE	9 th century BCE
II	Well-fortified settlement	Early 8 th (between 787 and 747) – 732 BCE	After 760/750 – 732 BCE
I	Sparse resettlement	732 – early 7 th century BCE	732 – early 7 th century BCE

Table 5.2.9. Stratigraphy of *Tell el-'Orēme*/Kinneret.

In the latter case, Jeroboam II would have used the chaotic situation in northern Israel and in Lebanon to intensify the Israelite's trade activities and built up a fortified settlement in *Tell el-'Orēme* as a new fortified trading station along the *via maris*. At least two tripartite buildings used as storage houses were built in *Tell el-'Orēme*.⁵¹

5.2.5. Conclusions

All excavated Galilean sites have a destruction layer around the middle of the 8th century BCE which can be connected with seismic activities around 760/750 BCE. Additionally, there is another destruction layer around 732 BCE produced by the Assyrian attacks under Tiglath-Pileser III. An earthquake is definitely attested by archaeological observations in *Tell el-Qedah*/Hazor. This table presents an overview to the main Galilean sites:

	<i>Tel Kabri</i>	<i>Tel el-Fuḥḥar</i> / Akko	<i>Tell Kēsān</i>	<i>Tell Abū Hawām</i>	<i>Tell Qarnē Hiṭṭīn</i>	<i>Tell el-Qādī</i> / Dan	<i>Tell el-Qedah</i> / Hazor	<i>et-Tell</i> / Betsaida	<i>Tell el-'Orēme</i> / Kinneret
850–825	E4	8	6	IIIb	Town	III	VII	5b	III
825–800									
800–775			Gap				VI		Gap
775–760/750 (earthquake)	[Destruction layer]								
760/750–732	E3	7		Gap	Gap	II	V	5a	II
732–721						I	IV	4	I
721–700			5						

Table 5.2.10. Compared stratigraphy of Galilean sites.

Our considerations help to establish a more concrete proposal for the Iron Age II chronology in Galilee based on the earthquake mentioned in Amos 1:1 and new natural scientific research. Sites which are located more in the south were possibly not affected as much as sites in Galilee. We know that two earthquakes took place around the 8th century BCE but an assignment of the earthquake of Amos 1:1 to a specific event is not possible. There are no archaeological destructions in Galilee connected with this second earthquake. Possibly the second earthquake affected the south of the country more than the north. Further research is needed in this field and new methods will definitely offer new results. Also new excavations in the area will present new archaeological data.

If the proposed attribution of destruction levels to the effects of seismic activities is correct, the Phoenicians did not rebuild *Tell Abū Hawām*, but only *Tel Kabri* and *Tell el-Fuḥḥar*/Akko. The harbor in *Tell el-Fuḥḥar*/Akko probably held such an important position that a rebuilding of *Tell Abū Hawām* was not necessary. Also, *Tell Qarnē Hiṭṭīn* in the center of Galilee was not resettled. *Tell el-Qedah*/Hazor, *Tell el-Qādī*/Dan, both in the Huleh valley, and *et-Tell*/Betsaida at the shore of the Sea of Galilee were resettled, and in *Tell el-'Orēme*/Kinneret a new trade center with storage capacity was erected.

Evidently Jeroboam II used the chaotic situation after the earthquake to improve Israel's infrastructure in trade activities. The main international trade road ran from the *Beqa'* Valley in the north via Hazor, Kinneret and the hill country in Lower Galilee to Megiddo in the Jezreel Valley and further on to Egypt in the south. Kinneret

⁵¹ Cf. chapter 2.1.1. in this volume for the partly re-excavation of one of these tripartite buildings in area D. The other one was partly excavated by FRITZ in the 1980's.

became a major station along this road for international active traders to stay overnight and to be supplied with nourishment. This not only strengthened the trade activities on the *via maris*, but also increased the income of Israelite towns.

Maybe the results presented here help to understand a cryptic Biblical text much better. 2 Kings 14:25 mentions that Jeroboam II was able to restore the area of ancient Israel, which was considerably reduced during the Aramean wars.⁵² According to this text he went as far to the north as Lebo-Hamath (likely *el-Lebwe*)⁵³ which never before belonged to Israel. However, there is no confirmation that the Israelite territory ever extended so far in the north. Maybe, this was only the plan of Jeroboam II after the earthquake. However, a recovery of Transjordanian territory under the rule of Jeroboam II is also mentioned in Amos 6:13–14. We can only guess that Jeroboam tried to integrate the heavily destroyed villages and towns in the Huleh and *Beqa'*-Valley into Israel. He may have started a small military attack since southern Israel was not so struck by the earthquake as the Phoenician and Aramean towns were. If he really did so, this attack was not enduring, but was nevertheless noted in the official annals of Israel.

Building up all the destroyed towns was a huge financial effort and required a lot manpower for all countries effected by the seismic activities. Certainly it took years or even decades to rebuild all of these towns. It is likely that Tiglath-Pileser III also benefitted from this situation when he conquered Palestine because some of the towns did not have an excellent shelter as some decades before.

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⁵² Cf. ZWICKEL 2019.

⁵³ BAGG 2007, 151.

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