

# BIBLICAL RESEARCH BULLETIN

The Academic Journal of Trinity Southwest University

ISSN 1938-694X

Volume XIV

Number 1

## Which Site Is Sodom?

### A Comparison of Bab edh-Dhra and Tall el-Hammam

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#### Abstract:

Two archaeological sites have been proposed for the biblical city of Sodom: Bab edh-Dhra and Tall el-Hammam. Both locations have evidence of fiery destruction, both have smaller towns nearby, and both are near the Dead Sea. But there are significant differences between these two sites, and each site has its passionate defenders. This article examines both of these archaeological sites by asking four questions. How does each site fit with the text of Genesis? Are there traditions that help locate Sodom? Does the date of the occupation and destruction favor one site? And, what does the archeological evidence reveal? The author concludes that Tall el-Hammam is the best candidate for biblical Sodom. But this conclusion has major ramifications. If Tall el-Hammam is Sodom, then our assumptions about how the ancients used numbers must be reexamined. But it also opens up great new vistas for biblical research into the times of the patriarchs. We will be able to know more about how Abraham, Isaac, Jacob and Joseph lived, and we will be able to understand and teach the biblical text with greater accuracy and authority.



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# Which Site is Sodom?

## A Comparison of Bab edh-Dhra and Tall el-Hammam

By Craig Olson, Ph.D.<sup>(e)</sup><sup>1</sup>

### Introduction

Many people have tried and failed to find the biblical city of Sodom. Right now there are two serious candidates for Sodom, each with their own passionate defenders. Both of these sites have been featured in articles in *Biblical Archaeology Review* (BAR). In 1980, the site of Bab edh-Dhra was proposed as a possible site for Sodom.<sup>2</sup> And in 2013, Tall el-Hammam was proposed as the site of Sodom.<sup>3</sup> Both sites display evidence of a fiery destruction. Both are near the Dead Sea, and have smaller satellite towns. Bab edh-Dhra has a nearby town called Numeira that some identify as Gomorrah, while for Tall el-Hammam the most likely candidate for Gomorrah is Tall Kafrayn. However, there are significant differences between these two sites. Tall el-Hammam was a very large city—larger than Hazor for most of its existence during the Bronze Age—located approximately 8.5 miles northeast of the Dead Sea. Bab edh-Dhra was, at best, a small town located near the southeast quadrant of the Dead Sea. Is either of these sites a likely candidate for Sodom? If so, which one?

While visiting Israel in the summer of 2013, I had the privilege to listen to the defenders of the Bab edh-Dhra (BeD) site. Later that summer I also had the opportunity to interview the director of the excavation at Tall el-Hammam (TeH), Dr. Steven Collins. These encounters inspired a quest to discover and evaluate the relative merits of these two sites. A positive identification of Sodom would help confirm the historicity of one of the most infamous episodes in biblical history. But a premature identification that later turns out

to be false could destroy people's faith in the accuracy of the Genesis narratives. The discovery of Sodom could enhance our knowledge and understanding of the patriarchal geography and chronology. Such a discovery might reveal new information that challenges long-held assumptions. This article is an attempt to determine which of these two sites is the best candidate for Sodom.

Both archaeological sites were evaluated by asking four questions. How does each site fit with the text of Genesis? Are there traditions that help locate Sodom? Does the date of the occupation and destruction favor one site? And, what does the archeological evidence reveal? So, the four categories of evaluation were: Text, Tradition, Timeframe, and Tell/Tall.<sup>4</sup> By submitting both BeD and TeH to the scrutiny of these four tests, the author concludes that Tall el-Hammam is the best candidate for the biblical city of Sodom.

### Text: How Does Each Site Fit with the Text of Genesis?

#### *The Boundaries in Genesis 10*

Earlier writers used the description of the borders of Canaan in Genesis 10:19 to imply that Sodom must be to the southeast of the Dead Sea. Frederick Clapp says, "It is evident that, if the five settlements lay at the north end of the Dead Sea, this description [Gen 10:19] would be meaningless."<sup>5</sup> However, the discovery of the large site of Tall el-Hammam silences this argument. Genesis 10:19 merely defines the east and west boundaries of Canaan. Since the largest city by far in the region of the Dead Sea was Tall el-Hammam, it would be strange indeed for the writer of Genesis to ignore this influential city and instead list the small town of Bab edh-Dhra.<sup>6</sup>

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<sup>2</sup> Hershel Shanks, "Have Sodom and Gomorrah Been Found?" *Biblical Archaeology Review* 6, no. 5 (Sep/Oct 1980) 27-36.

<sup>3</sup> Steven Collins, "Where is Sodom? The Case for Tall el-Hammam," *Biblical Archaeology Review* 39, no. 2 (Mar/Apr 2013) 32-41, 70.

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<sup>4</sup> Most people are more familiar with using the word Tell for an archeological site, but since Tall el-Hammam is in Jordan it is identified with the Arabic cognate, Tall.

<sup>5</sup> Frederick G. Clapp, "The Site of Sodom and Gomorrah," *American Journal of Archaeology* 15, no. 1 (1936) 333. See also Bryant G. Wood, "Locating Sodom: A Critique of the Northern Proposal," *Bible and Spade* 20, no. 3 (Summer 2007) 78.

<sup>6</sup> Steven Collins, "A Response to Bryant G. Wood's Critique of Collins' Northern Sodom Theory," *Biblical Research Bulletin* 7, no. 7 (2007) 7.

## Visibility from Hebron

Genesis 19:27-28 says Abraham could see the smoke rising from the destruction of Sodom ölike smoke from a furnace.ö Since Abraham was living in the vicinity of Hebron by this time (Gen 13:18), some have assumed Sodom must be to the southeast of the Dead Sea, approximately opposite Hebron.<sup>7</sup> However, again this argument is moot. Smoke from an enormous conflagration that destroyed several cities would have been visible from Hebron whether it rose from the north or the south of the Dead Sea. In this regard, one should also note that the as-the-crow-flies distance from Hebron to Bab edh-Dhra and Tall el-Hammam is approximately the same.

## Location of Tar/Slime pits

One of the main arguments that Sodom is at the southern end of the Dead Sea was the rich presence of öbitumen pitsö in that location as observed in the early 20<sup>th</sup> century. This led some to designate the southern end of the Dead Sea as the Valley of Siddim (Gen 14:10). In 1924, W. F. Albright said, öThe only possible location for the Vale of Siddim, with its asphalt wells (rendered öslime-pitsö in the AV) is in the southwestern part of the Dead Sea.ö<sup>8</sup> Similarly, in 1936, the geologist Fredrick Clapp said, öNo boggy land in the North warrants comparison with the öslime pitsö as do existing and historical petroliferous signs in the South.ö<sup>9</sup> Other later writers merely quote or refer to these two early studies.<sup>10</sup> However, an examination of these two early studies finds the evidence cited extremely weak. Clapp states at the outset that he has already decided against any northern position for Sodom, and bases his conclusions on supposed ruins under the water of the Dead Sea as seen by air

pilots (among his own observations).<sup>11</sup> These early 20<sup>th</sup> century observations of slime pits seem to be the only reason to locate the Valley of Siddim at the southern end of the Dead Sea. Certainly, there seems to be no textual reason why the Valley of Siddim (Salt) should refer to anything other than the whole Dead (Salt) Sea Valley (Gen 14:3). But there are greater problems with this identification of the Valley of Siddim.

First, there is no geological reason to limit the slime pits to the southern end of the Dead Sea. The level of the Dead Sea was much higher in the early 20<sup>th</sup> century than it is today.<sup>12</sup> It is believed that the water level in Abraham's day was approximately as low as we see it today.<sup>13</sup> This obviously opens up huge areas unseen by either Albright or Clapp. As for öbitumen,ö the Hebrew word *hēmār* is usually translated as bitumen, asphalt, or tar, though it is related to the word for mortar or clay.<sup>14</sup> This same word is used to describe the mortar used in the tower of Babel (Gen 11:3), and this substance was imported to Egypt where it was used to seal Moses's basket (Exod 2:3). Whatever this substance was, it is associated with sinkholes, which appear all around the Dead Sea, particularly when the water level is low. Interestingly, most of the sinkholes today are near Qumran, not near the southern part of the Dead Sea.<sup>15</sup>

Second, S. Collins argues for a different location for the battle in Genesis 14 (Valley of Siddim) based on the details in the text of Genesis 14:5-7.<sup>16</sup> The coalition of kings from the north travelled south down the east side of the Dead Sea (likely on the Kings Highway, bypassing Bab edh-Dhra and Numeira, by the

<sup>7</sup> J. P. Harland, öSodom and Gomorrah: The Location of the Cities of the Plain,ö *Biblical Archaeologist* 5, no. 2 (1942) 22.

<sup>8</sup> W. F. Albright, öThe Archaeological Results of an Expedition to Moab and the Dead Sea,ö *Bulletin of the American Schools of Oriental Research* 14, (1924) 9.

<sup>9</sup> Clapp, öSite of Sodom and Gomorrahö 343. Harland, öSodom and Gomorrahö 19.

<sup>10</sup> Bryant G. Wood, öThe Discovery of the Sin Cities of Sodom and Gomorrah,ö *Bible and Spade* 12, no. 3 (Summer 1999) 66-67, refers to David M. Jr. Howard, öSodom and Gomorrah Revisited,ö *Journal of the Evangelical Theological Society* 27, no. 4 (1984) 389-90, who, in turn, quotes from Harland, öSodom and Gomorrahö 28-30, and Clapp, öSite of Sodom and Gomorrahö 323-44.

<sup>11</sup> *Ibid.*, 323, 343.

<sup>12</sup> Harland, öSodom and Gomorrahö 28-30. Howard, öSodom and Gomorrah Revisitedö 395.

<sup>13</sup> Steven Collins, öTall el-Hammam IS Sodom: Billington's Heshbon Identification Suffers from Numerous Fatal Flaws,ö *Artifax* 27, no. 3 (Summer 2012) 4.

<sup>14</sup> Gerard van Groningen, öרַמְדַּי ( ramdai) in *Theological Wordbook of the Old Testament*, ed. R. Laird Harris, Gleason L. Archer Jr., and Bruce K. Waltke, (Chicago: Moody Press, 1980) 298-99.

<sup>15</sup> See the foreword by Leen Ritmeyer in Steven Collins and Latayne C. Scott, *Discovering the City of Sodom: The Fascinating, True Account of the Discovery of the Old Testament's Most Infamous City* (New York: Howard Books, 2013) x.

<sup>16</sup> Collins, öResponse to Bryant Woodö 8-9.

way). Then they circled around below the Dead Sea and headed up the west side to Hazazon Tamar (En Gedi, according to 2 Chr 20:2). It is only after this point that the kings from the five Cities of the Plain allied together to face their enemies in battle.<sup>17</sup> Of course we cannot know for certain which route an army traveled in antiquity, and there may have been a reasonable explanation for them to double back.<sup>18</sup> But lacking other information in the text, the most logical route would have been for the kings to continue northward.

Third, the whole point may be moot. It is doubtful that the five kings of the plain chose to engage a formidable enemy right on their front doorstep. Both logic, and ancient military strategies (Josh 11:1-5) demand that they would choose a theatre of battle away from their home cities.<sup>19</sup> Plus the text seems to indicate this. No one would build a city near sinkholes, where the ground would have been unsuitable for both crops and herds. Plus the fact that the kings of the plain fell into the tar (or clay) pits (Gen 14:10) indicates that they were in unfamiliar territory.<sup>20</sup> Indeed, newly-forming sinkholes are often invisible until broken open by unwitting individuals walking over them!

After their victory in the battle, it seems the four kings of the north did travel to Sodom and Gomorrah in order to take their possessions and food (Gen 14:11-12). But the text does not say they destroyed these cities, or even breached the walls, and they did not pillage the entire group. The Cities of the Plain had already been paying tribute to Kedorlaomer for 12 years (Gen 14:4). It was in Kedorlaomer's interest to keep them submissive, but also intact and productive. We know that Abraham's 318 men, along with the hostages who had been taken, could carry the entire amount of plunder back to Sodom (Gen 14:16).

<sup>17</sup> See the Map 2-2 in William Schlegel, *Satellite Bible Atlas: Historical Geography of the Bible* (n.p.: 2012). Bill Schlegel inexplicably stops the path of the Mesopotamian kings at the southern end of the Dead Sea and does not indicate the kings went to Hazazon Tamar as Genesis 14:7 clearly states.

<sup>18</sup> Howard, "Sodom and Gomorrah Revisited" 389, suggests the list may not be in chronological or geographical order.

<sup>19</sup> Collins, "Response to Bryant Wood" 8.

<sup>20</sup> Willem C. van Hattem, "Once Again: Sodom and Gomorrah," *Biblical Archaeologist* 44, (Spring 1981) 87.

Lastly, even though Albright believed the "slime pits" must have been at the southern end of the Dead Sea, he still rejected Bab edh-Dhra as the location of Sodom, preferring instead to see it as a cultic site.<sup>21</sup> Albright postulated that the five cities of the pentapolis were submerged under the waters of the southern end of the Dead Sea.<sup>22</sup> This theory was certainly plausible during the first half of the twentieth century when the water level of the Dead Sea was much higher than it is today. There was even a diving expedition that claimed to have found the city of Sodom under the waters of the Dead Sea.<sup>23</sup> However, we can now say for certain this theory does not (ahem) hold water. The level of the Dead Sea has fallen to such an extent in recent times that vast portions of the sea floor have become visible—especially in the shallow southern region. After a large part of the basin became exposed in 1979, Rast and Schaub, the excavators of Bab edh-Dhra, stated "It is now possible to see that the south end [of the Dead Sea] could not have contained cities at any time during the historical period, at least from around 3000 BC onward."<sup>24</sup>

I make no claim to be an archaeologist, but to the untrained eye the floor of the Dead Sea seems to be a particularly poor site for a city. It would have been vulnerable to a military attack, or even a strong downpour. Plus where could the waste from the city drain? This is the lowest point on earth! As W. Rast observed, "We now know about many Early Bronze cities, and they are all built on high areas."<sup>25</sup>

### ***Genesis 13: The Key Location Text!***

Now we turn to Genesis 13, the "only geographical description of Sodom's location in an historical narrative."<sup>26</sup> As S. Collins points out, this should be the

<sup>21</sup> Albright, "Archaeological Results" 6. Howard, "Sodom and Gomorrah Revisited" 395.

<sup>22</sup> Albright, "Archaeological Results" 7-8. Howard, "Sodom and Gomorrah Revisited" 395.

<sup>23</sup> Ralph E. Baney, *Search for Sodom and Gomorrah: A True Adventure in the Dead Sea* (Kansas City, MO: CAM Press, 1962).

<sup>24</sup> Walter E. Rast and R. Thomas Schaub, "Expedition to the Southeastern Dead Sea Plain, Jordan, 1979," *American Schools of Oriental Research Newsletter* 8, (June 1980) 16.

<sup>25</sup> Walter E. Rast quoted in Shanks, "Have Sodom and Gomorrah Been Found?" 33.

<sup>26</sup> Steven Collins, "Sodom: The Discovery of a Lost City," *Bible and Spade* 20, no. 3 (Summer 2007) 71.

primary text used to locate the city of Sodom, and the other passages mentioned earlier should be interpreted in light of this clear passage.<sup>27</sup> And fortunately, in Genesis 13, we have some very specific information to help us locate Sodom. We know where Abraham and Lot stood when they separated (between Bethel and Ai, Gen 13:3), we know which way Lot was looking (east, Gen 13:11), and we know what he saw (the öwhole plain of the Jordan,ö Gen 13:10).

Unfortunately, English translations obscure the location somewhat by the use of an inexact word: öplainö (*kikkar* or *hakikkar*). There are several Hebrew words for valley, or region,<sup>28</sup> but this is not one of them. In fact, *kikkar* is not normally a geographic word at all. It has three meanings: a round disk, like a talent (1 Kgs 10:10); a circular loaf of bread (1 Sam 2:36); or a circular area like that around Jerusalem (Neh 3:22, 12:28).<sup>29</sup> In Genesis, *kikkar* is the only word used to describe the öplainö of Sodom and Gomorrah. This seems to indicate that either there was something unique about this area, or that öthe plain of the Jordanö (*kikkar hayarden*) was a proper name for a specific region. As it turns out, there is a specific region, visible from Ai, to the east, circular in shape, which seems perfectly described as: öthe disk/circle/*kikkar* of the Jordan.ö<sup>30</sup> This area was, and still is, fed by many springs, so could be described as öwell-watered.ö Plus, in ancient times the river Jordan would flood annually, like the Nile in miniature.<sup>31</sup> Further, the Transjordan portion of this area, in antiquity, had several perennial rivers running from the highlands to the Jordan River. Thus the plain could be described as ölike the garden of Yahwehö (referring to the garden of Eden), and ölike the land of Egyptö (Gen 13:10).

<sup>27</sup> Collins, öResponse to Bryant Woodö 6-7.

<sup>28</sup> Examples include, *biq'á, gay', nahal, 'émeq, 'árābā, shiplā*. See Steven Collins, *The Search for Sodom and Gomorrah* (Albuquerque: Trinity Southwest University Press, 2006) 12, especially note 31.

<sup>29</sup> Gleason L. Jr. Archer, ökikk r,ö in *Theological Wordbook of the Old Testament*, ed. R. Laird Harris, Gleason L. Archer Jr., and Bruce K. Waltke, (Chicago: Moody Press, 1980) 456.

<sup>30</sup> See the maps in Collins and Scott, *Discovering the City of Sodom*, 260-66. although the Kikkar is visible in almost any good Bible Atlas, for example Schlegel, *Satellite Bible Atlas*, Map 2-2.

<sup>31</sup> Collins, *Search for Sodom and Gomorrah*, 15.

It is true that later biblical writers identify an extended, oval shaped area as the öKikkar of the Jordanö (1 Kgs 7:46 = 2 Chr 4:17, 2 Sam 18:23). But this is merely an extension northward, not a separate region as Wood tries to argue.<sup>32</sup> Because of the need to locate Sodom to the south of the Dead Sea, earlier writers proposed that the Kikkar of the Jordan was a more elastic term meaning the whole region of the Dead Sea.<sup>33</sup> But that was before the discovery of Tall el-Hammam. More recently, Clyde Billington has argued that the term *kikkar* can be used of more than one location.<sup>34</sup>

None of these proposals, however, seems to fit the text of Genesis 13 as well as Tall el-Hammam does. Everyone does acknowledge that Lot moved eastward, into the Kikkar of the Jordan, from the area of Bethel/Ai. But from there, some argue he also moved southward. Schlegel represents this viewpoint well. He says, öI don't think Gen 13:10-12 restricts Sodom to the Kikkar of the Jordan. Yes, Lot chose the Kikkar of the Jordan and travelled east from the Hill Country. However, Genesis 13:11-12 implies passage of time during which Lot moved around. That Lot öpitched his tent as far as Sodomö suggests a geographical separation from the öKikkar of the Jordan.ö<sup>35</sup> Billington also sees two stages in Genesis 13:12, öLot first pitched his tents near cities other than Sodom and then moved. The phrase 'as far as Sodom' suggests that Sodom was not located close to the 'cities of the kikkar' at the northern end of the Dead Sea.ö<sup>36</sup>

This argument stretches the biblical text to fit a theory. Nowhere does the Bible say Lot moved southward, and Genesis 13:12 does not argue for two stages in Lot's travel. Schlegel is right in that the verse does not restrict Sodom to the Kikkar of the Jordan, but it does not exclude that area either. In fact the most natural reading is reflected in many English translations, Lot pitched his tents önear Sodomö (NIV) or önext to Sodomö (NET). Plus, the argument does

<sup>32</sup> Wood, öLocating Sodomö 81.

<sup>33</sup> Howard, öSodom and Gomorrah Revisitedö 388.

<sup>34</sup> Clyde E. Billington, öTall el-Hammam Is Not Sodom,ö *Artifax* 27, no. 2 (Spring 2012) 13.

<sup>35</sup> Bill Schlegel, öBiblical Problems with Locating Sodom at Tall el-Hammam,ö *BiblePlaces.com blog*, <http://blog.bibleplaces.com/2012/01/biblical-problems-with-locating-sodom.html> (accessed July 18, 2013) 1.

<sup>36</sup> Billington, öTall el-Hammam Is Not Sodomö 12.

not make sense. Why would Lot bypass the most powerful and substantial city of the southern Levant, and the only city he could see from Ai, in order to move to a much smaller, insignificant town? In Genesis 13:5 the dispute between Abram's men and Lot's men is over grazing land. Why would Lot's party bypass the abundant fertile grazing land around TeH for the arid region of BeD where grazing land is sparse at best?

So in the *Text* category, Tall el-Hammam is easily favored. Genesis 13 is very clear, and TeH fits every detail. The other passages (Gen 10, 14, 19) are not as clear, and they do not favor BeD in any case.

## Traditions: Are There Traditions That Help Locate Sodom?

### *Mount Sodom and the Pillar of Salt*

In many cases tradition has proven to be a reliable indicator for the locations of biblical sites, as have toponymical connections between biblical names and modern names. But traditions and toponyms can lead people astray, too. Certain traditions have long pointed to the southern end of the Dead Sea as the location for Sodom, including the fact that there is a Mount Sodom to the south west of the Dead Sea, and several pillars of salt in that area that have been called *Lot's wife*. However, there is no evidence that any population has ever lived on or around that area.<sup>37</sup> Not to mention the fact that the area is not well watered, nor is it a plain, nor is it east from Bethel/Ai, it is not even visible from there. So, we can be fairly certain that the Muslims who assigned the names to these places thousands of years after the time of Abraham did not possess secret knowledge about the correct location of Sodom.<sup>38</sup>

### *Zoar and the Madaba Map*

Although Albright's theory of a submerged Sodom has been abandoned, many still cling to his view that Sodom must be at the southern end of the Dead Sea. The supposed presence of *lime-pits* was one piece of evidence he offered. The only other piece of evidence Albright proposed to support the southern theory was the location of Zoar. He said, *there can no*

<sup>37</sup> Collins and Scott, *Discovering the City of Sodom*, 149-50.

<sup>38</sup> *Ibid.*, 150.

longer be any question as to whether Sodom and Gomorrah were situated at the southern or northern end of the Dead Sea, since the mediaeval Zoar, which must have been located in the vicinity of the ancient town, is expressly placed at the southern end, both by Byzantine and by Arabic sources.<sup>39</sup> The Byzantine source he refers to is the Madaba Map.

The Madaba map is a mosaic discovered in the floor of a Byzantine church from the 6<sup>th</sup> century AD. It is the oldest extant map of the Holy Land.<sup>40</sup> Certainly this is a very important map. Significantly the Dead Sea and the region surrounding it are represented on the Madaba map, which has implications for our search for Sodom. Of interest to our enquiry, the Madaba map seems to locate Zoar just south of the Wadi Zered, at the location of Es Safi.<sup>41</sup>

Bryant Wood called the Madaba map *the most important source for locating the site [of Zoar]*.<sup>42</sup> There is even a Byzantine monastery and church complex nearby, also represented on the Madaba map, called *The Sanctuary of St. Lot*.<sup>43</sup> The sanctuary has been excavated, and is built in front of a cave, believed by Byzantine Christians to be the cave where Lot and his daughters took refuge following the destruction of Sodom and Gomorrah.<sup>44</sup> The significance of this location is that the Zered brook is on the border of ancient Moab actually between ancient Moab and Edom/Seir. Since the Moabites are said to be descendants from the incest between Lot and his oldest daughter (Gen 19:37), it makes sense for this cave to be on the border of Moab.<sup>45</sup> There are other traditions from as early as Josephus<sup>46</sup> and Eusebius<sup>47</sup> that also place Zoar at the southern end of the Dead Sea.<sup>48</sup>

<sup>39</sup> Albright, *Archaeological Results* 9.

<sup>40</sup> David E. Graves and Scott Stripling, *Identification of Tall el-Hammam on the Madaba Map*, *Bible and Spade* 20, no. 2 (Spring 2007) 35.

<sup>41</sup> Howard, *Sodom and Gomorrah Revisited* 393.

<sup>42</sup> Wood, *Discovery of the Sin Cities* 68.

<sup>43</sup> *Ibid.*, 69.

<sup>44</sup> Wood, *Locating Sodom* 79.

<sup>45</sup> Harland, *Sodom and Gomorrah* 21.

<sup>46</sup> *Jewish Wars* 4.482. Flavius Josephus, *The Works of Josephus: Complete and Unabridged*, trans. William Whiston, new updated ed. (Peabody, MA: Hendrickson, 1987) 687.

<sup>47</sup> *Onomasticon* 193, 466, 503, 810, 815. Eusebius, *Onomasticon: The Place Names of Divine Scripture*, trans. R. Steven Notley

This would seem to be a perfect fit. Early traditions that locate biblical Zoar, and the story of Lot, surely mean that Sodom must be close by. Genesis 19:19-20 seems to indicate that Zoar was closer to Sodom than the mountains were. And the time Lot had to travel was from (the rising of dawn (Gen 19:15) until the (the sun had risen over the land (Gen 19:23) perhaps indicating mid-afternoon.<sup>49</sup> However, like the presence of tar pits, this evidence may not be as strong as initially supposed.

First, this tradition arose thousands of years after Abraham's time. Like the location of Mount Sodom, there is no guarantee that Josephus, Eusebius, or the later Byzantine Christians knew the actual location of biblical Zoar (or of Lot's cave). There may have been a city called Zoar in that location in Josephus's day, but there are other Christian traditions that locate Zoar to the north of the Dead Sea.<sup>50</sup> If we had no other evidence, we might be inclined to accept this traditional location at face value. But we do have other evidence—the biblical text itself seems to contradict this location for Zoar.<sup>51</sup>

Hundreds of years after the story of Lot and his daughters, Israel was returning to the Promised Land from Egypt following Moses. During the Exodus, Yahweh specifically barred Israel from inhabiting any of the territory of both Edom/Seir (Deut 2:4-5) and Moab (Deut 2:9). These two territories are separated by the Zered brook, the traditional location of Zoar. Thus, if this were the location for Zoar, it would not be in Israelite territory. However, Yahweh specifically tells Moses that Zoar is included in Israelite territory (Deut 34:1-4).

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and Zeev Safrai, Triglott ed. (Leiden: Brill, 2005) 44, 90, 96, 142, 143.

<sup>48</sup> Howard, "Sodom and Gomorrah Revisited" 393.

<sup>49</sup> Contra the NET Bible translation of Genesis 19:23 "The sun had just risen over the land," which indicates sunrise, and is almost certainly wrong. In the negligible amount of time between dawn and sunrise it is impossible for Lot and his family to travel far enough away from Sodom to escape the effects of its destruction.

<sup>50</sup> Collins, "Response to Bryant Wood" 10-11. Howard, "Sodom and Gomorrah Revisited" 393.

<sup>51</sup> Steven Collins, "Rethinking the Location of Zoar: An Exercise in Biblical Geography," *Biblical Research Bulletin* 6, no. 3 (2006).

He shows Moses a sweeping panorama of the Promised Land beginning at Moses's right hand with Gilead, moving north to Dan, then down through the territory across the Jordan river all the way to the Mediterranean Sea and as far south as the Negev. The panorama concludes by mentioning the city of Jericho, across the Jordan from Mount Nebo and ends at Moses's left hand with Zoar. This verse seems to locate Zoar at or near the Arnon river—the northern border between Moab and the tribal allotment of Reuben (Josh 13:9-10). In fact, the traditional Zoar is not visible from Mount Nebo, though that may not be a significant argument as other sites mentioned are not visible from there either.<sup>52</sup> There is an unnamed city mentioned by Joshua in the middle of the Arnon valley that may be Zoar.<sup>53</sup> Yahweh does not say, "The land I promised to Abraham also continues in a narrow strip south along the eastern shore of the Dead Sea into Moabite territory (that I previously said was not your territory) to the small town of Zoar!" In fact Yahweh specifically says he gave the city of Ar (in or near the Arnon river), and presumably all the territory south of that, to the Moabites (Deut 2:9). Perhaps this is an argument from silence, but it would seem that a statement like this would be required if Yahweh were asking Moses and the people to contradict his earlier command to stay out of Moabite territory.

In addition, a northern location for Zoar fits even better with the story of Lot and his daughters. The Arnon river is between the Moab to the south—the territory of the descendants from Lot and his oldest daughter—and Ammon to the north—the territory of the descendants from Lot and his youngest daughter (Gen 19:37-38). It fits the story better than the Zered brook, which is located between Moab and Edom (descendants of Esau). And it seems to fit perfectly with later prophecy of Yahweh's judgment against Moab in Isaiah 15.<sup>54</sup> Many Moabite cities are said to be destroyed, including Ar (Isa 15:1) on the northern border of Moab, near the Arnon river. But the refugees travel as far as Zoar (Isa 15:5), which is not destroyed, presumably because it is outside of Moabite territory. The same prophecy against Moab is recorded in Jeremiah 48. Here again the town of Zoar is not destroyed.

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<sup>52</sup> Howard, "Sodom and Gomorrah Revisited" 390-91.

<sup>53</sup> *Ibid.*

<sup>54</sup> Collins, "Response to Bryant Wood" 12.

In fact, the cries of anguish will be heard from Zoar (across the northern border of Moab) to Horonaim (believed to be by the Zered brook, at the southern border). This makes much more sense than believing Zoar and Horonaim are in essentially the same locale.

Second, even with those who hold to a southern location for Zoar (and Sodom), there is no consensus as to where Zoar is. Albright was not convinced that es-Safi was Zoar because of the lack of any Middle Bronze Age pottery or other remains.<sup>55</sup> Neev and Emory believe that Bab edh-Dhra is Zoar, not es-Safi.<sup>56</sup> Collins speculates that since the name *öZoarö* means small or insignificant, there may be no remains left of the town because it consisted of a nomadic tent city.<sup>57</sup> In any case, the identification of Zoar with es-Safi is not nearly as solid as some imagine.

Third, as we have seen with the tar pits, the location of Zoar actually has little to do with the location of Sodom. The Scriptures do not give us much information about Zoar. According to Genesis 19 we know it was small, though it once had a king; it was not destroyed with the other four Cities of the Plain; it was also known as Bela (Gen 14:2, 8); and it seems to have been south of Sodom on the way to Egypt (Gen 13:10).<sup>58</sup> Perhaps we can say that Zoar was close enough to Sodom to travel to in approximately half a day (Gen 9:15, 23), but that does not help us much. Collins says, *öthe location of Zoar cannot be used to determine the location of the Kikkar or the cities associated with it.ö*<sup>59</sup> Even if we had a confirmed location for Zoar, the biblical information relating Zoar to Sodom is still very sketchy. Since the location is disputed, it seems that this tie to the southern location for Sodom should be abandoned.

Finally the Madaba map itself seems to represent the large site of Tall el-Hammam.<sup>60</sup> On the northeastern corner of the Dead Sea is a large city represented

with five palm trees. This is proportionally located exactly where TeH is, so the identification seems secure. The five palm trees may represent the five springs around TeH. There is also a smaller city to the north of TeH, possibly Tall Nimrin.<sup>61</sup> If a small city like Zoar is represented on the Madaba map, the cities of Sodom and Gomorrah should be too.<sup>62</sup> Graves and Stripling identify this city with Tall el-Hamman, but they stop short of linking TeH with Sodom.<sup>63</sup> Unfortunately the tiles are missing from the Madaba map that might identify these two cities. If we just had the labels *öSodomö* and *öGomorrah,ö* this mystery might be solved!

So while there seems to be more tradition associated with the southern site than the northern, these traditions are by no means unambiguous. Further, since these traditions are thousands of years after the events they commemorate, they do not carry as much weight as the biblical text, the timeframe, or the archaeological data.

### **Timeframe: Does the Date of the Occupation / Destruction Favor One Site?**

This is the strongest argument against TeH being biblical Sodom. For not a few scholars, the chronology does not seem to fit the biblical record. TeH was destroyed in the Middle Bronze age *öca. 1700+/-6 BC.*<sup>64</sup> The archeological findings reveal that this very large site was continuously occupied for at least 2,500 years from the Chalcolithic period through most of the Middle Bronze Age.<sup>65</sup> An Early and Intermediate Bronze Age city overspread the entire site (over 60 acres inside the city walls), with the Middle Bronze Age inhabitants adding a separately-defended upper city.<sup>66</sup> During this long time of continuous occupation the city was attacked, or suffered destruction, several times, but was rebuilt quickly each time. Gary Byers says, *öThe cause of those destructions is unclearö*

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<sup>55</sup> Van Hattem, *öOnce Againö* 87.

<sup>56</sup> D. Neev and K. O. Emery, *The Destruction of Sodom and Gomorrah, and Jericho: Geological, Climatological, and Archaeological Background* (New York: Oxford University Press, 1995) 109, 124, 127.

<sup>57</sup> Collins, *öRethinking the Location of Zoarö* 3.

<sup>58</sup> Collins and Scott, *Discovering the City of Sodom*, 117-18.

<sup>59</sup> Collins, *Search for Sodom and Gomorrah*, 15.

<sup>60</sup> Graves and Stripling, *öIdentification of Tall el-Hammamö* 35-45.

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<sup>61</sup> *Ibid.*, 39.

<sup>62</sup> Collins, *öTall el-Hammam IS Sodomö* 4.

<sup>63</sup> Graves and Stripling, *öIdentification of Tall el-Hammamö* 36.

<sup>64</sup> Collins and Scott, *Discovering the City of Sodom*, 129, 142.

<sup>65</sup> Gary Byers, *öTall el-Hammam 2008: A Personal Perspective,ö Bible and Spade*, <http://www.biblearchaeology.org/post/2009/01/12/Tall-el-Hammam-2008-A-Personal-Perspective.aspx> (accessed July 31, 2013).

<sup>66</sup> *Ibid.*

possibly natural disaster, human error or even war. All we know for sure, at this point, is that it happened and the city was quickly rebuilt again each time until the last one.<sup>67</sup> This final destruction occurred before 1600 BC.<sup>68</sup> After the massive destruction of TeH and all the cities surrounding it, the area was unoccupied for about 700 years, though a walled town was built atop the upper tell during the Iron Age II. There was also a small garrison and bathhouse built during the Greco-Roman period.<sup>69</sup>

This vast destruction seems to fit the profile described in Genesis 19 for the destruction of Sodom. But E. Merrill and others assert that the chronology does not fit with the biblical timeframe for Abraham's life.<sup>70</sup> For Merrill the issue concerns the priority of evidence from either the biblical text, or the archaeological tell. He sees this as an either/or situation. If the two are in conflict, the priority must go to the biblical text. However, he does state that "a realistic picture of ancient Israel's life and times is best recovered by careful attention to both the biblical narrative and to archeological data when both are subjected to proper methodological analysis and interpretation."<sup>71</sup> This strikes a useful stance—the issue is not the Bible itself, nor the archaeological data, it is more likely to be our interpretation of the archaeological data or our interpretation of the Bible. This should not be considered an either/or situation. In many cases the evidence from science or archeology has helped (and sometimes even forced) Christians to re-examine the interpretation of Scripture. It is because we believe in the truthfulness of Scripture that we seek to align it with known facts. So, which is more likely to be in error, the identification of TeH as Sodom, or our interpretation of the numbers in the Bible?

The argument involves the numbers in Genesis-Exodus for three events: the date of the Exodus, the

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<sup>67</sup> Gary Byers, "CSI Hammam: The Fifth Season of Investigating a Biblical City," *Bible and Spade*, <http://www.biblearchaeology.org/post/2010/04/14/CSI-Hammam-The-Fifth-Season-of-Investigating-a-Biblical-City.aspx> (accessed July 31, 2013).

<sup>68</sup> Byers, "Tall el-Hammam 2008."

<sup>69</sup> Byers, "CSI Hammamö."

<sup>70</sup> Eugene H. Merrill, "Texts, Tells, and Old Testament Chronology: Tall Hammam as a Case Study," *Artifax* 27, no. 4 (Autumn 2013) 20-21.

<sup>71</sup> *Ibid.*, 20.

length of the Israelite sojourn in Egypt, and the length of lifetimes for the patriarchs. It must be admitted that taking these numbers literally does seem to indicate Abraham lived closer to the year 2000 BC than to 1700+/-6 BC. This is not an insignificant discrepancy, so we will examine each set of numbers individually.

### *The Date of the Exodus*

The early Exodus view takes the numbers in 1 Kings 6:1 (480 years from the Exodus to the 4<sup>th</sup> year of Solomon's reign) and Judges 11:26 (300 years from just prior to the conquest until his day) at face value.<sup>72</sup> The fourth year of Solomon's reign can be dated with the help of the Assyrian Eponym Canon to 966 BC. Once that date is known, adding 480 years gives a date of the Exodus at 1446 BC. That would mean the Pharaoh of the Exodus is Amenhotep II (1450-1425 BC). This corresponds with Jephthah's comment that the Conquest occurred 300 years prior to his days in the 11<sup>th</sup> century BC. These two biblical references seem to present a solid biblical case for this view.

However, the late Exodus view also has the support of two biblical references. These references are not numbers, but the names of two cities mentioned in Exodus 1:11. Pithom, and particularly Rameses, lend support to a later Exodus. K.A. Kitchen represents recent scholarly consensus that the rebuilt city of Rameses mentioned in Exodus 1:11 is the city Pi-Rameses, rebuilt during the reign of Rameses II.<sup>73</sup> This rebuilding likely occurred near the end of the Egyptian sojourn, and may have taken place near the beginning of Rameses II's 67-year reign (which began in either 1304 or 1290 BC). The Merneptah stele places Israel in the Levant (though not necessarily in the Cis-Jordan as many assume) before 1220 BC, which leaves the possible years of the Exodus as sometime between 1290-1260 BC, perhaps around 1280 BC. The conquest, then would be between 1250-1220 BC, perhaps around 1240 BC (assuming the 40 years of wandering is read literally, not as a round figure.)<sup>74</sup> These figures may be moved 14 years earlier if 1304 BC proves to be the beginning of Rameses II's reign.

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<sup>72</sup> Eugene H. Merrill, *Kingdom of Priests: A History of Old Testament Israel*, 2nd ed. (Grand Rapids: Baker Academic, 2008) 83-84.

<sup>73</sup> K. A. Kitchen, *Ancient Orient and Old Testament* (Chicago: InterVarsity Press, 1966) 57.

<sup>74</sup> *Ibid.*, 60-61.

Those who hold a late Exodus point out that many numbers in Scripture are symbolic rather than exact. The number 480 is divisible by 40, and thus is perhaps a symbolic number representing 12 generations.<sup>75</sup> Each generation was actually closer to 25 years than 40 years, so the actual number of years would be closer to 300 than 480. Similarly, Jephthah's claim of 300 years of occupation was in the context of a political speech, and may well have been an exaggeration for rhetorical effect.<sup>76</sup>

Those who hold to an early Exodus (1446 BC) do not believe Exodus 1:11 indicates that Rameses II was the Pharaoh of the Exodus. They point out that Moses had not been born at that point (Exod 2:2), and it would be at least 80 years before he would confront Pharaoh. Also the text clearly says a new Pharaoh was installed (Exod 2:23).<sup>77</sup> So, they posit that the city called Rameses in Exodus 1:11 either refers to a different city, or reflects a later updating of the text (as even the late Exodus proponents allow for in Gen 47:11). However, there is no reason why Exodus 1-2 should be in strictly chronological order. Moses may have been born, and then banished, all before the reign of Rameses II (1304-1236 or 1279-1213 BC).

With two biblical witnesses for each view, we turn to extra-biblical evidence to break the deadlock. The archaeological evidence in Canaan, as it is currently interpreted, is seen by many to favor the late Exodus view. There are two strands of archeological evidence: Evidence of a destruction layer corresponding to the 12<sup>th</sup> (but not the 14<sup>th</sup>) century initially seems to favor the late Exodus. However, the Bible clearly maintains only three cities were actually destroyed in the Conquest: Jericho, Ai, and Hazor (Josh 24:13, Deut 6:10-11). Unfortunately Jericho has eroded so much due to unscientific excavations and exposure to the elements, that there is no consensus as to the evidence it can provide. B. Wood maintains a 15<sup>th</sup> century destruction of Jericho under Joshua, but his views have not convinced many in mainstream scholarship. The situation at Ai is also not clear. The initial site identified as Ai

<sup>75</sup> K. A. Kitchen, "The Exodus," in *Anchor Bible Dictionary*, ed. David Noel Freedman, (New York: Doubleday, 1992) 702.

<sup>76</sup> Daniel I. Block, *Judges, Ruth: An Exegetical and Theological Exposition of Holy Scripture*, New American Commentary (Nashville: Broadman & Holman, 1999) 363.

<sup>77</sup> Merrill, *Kingdom of Priests*, 87-88.

(et-Tell) does not appear to have been occupied between 2400-1200 BC.<sup>78</sup> However, another site—Khirbet el-Maqatir—shows promise as a possible site for the Ai of Joshua's time. It clearly exhibits a Late Bronze Age occupation.<sup>79</sup> However, evidence of a destruction layer for this time period is less than would be expected according to the biblical record (Josh 8:19-28). In the case of Hazor the evidence of destruction (~1230 BC) can be marshaled to prove a late Exodus,<sup>80</sup> or an early Exodus,<sup>81</sup> depending on whether this destruction is associated with Joshua (Josh 11) or Deborah and Barak (Judges 4). Early Exodus proponents would date the destruction in the 12<sup>th</sup> century to battles during the time of the Judges.<sup>82</sup>

More telling is the sudden increase in population in Canaan beginning around 1300 BC after a period of stagnation since the 19<sup>th</sup> century BC.<sup>83</sup> There is an almost ten-fold increase in the number of small settlements during the Iron Age I compared with the Late Bronze Age (from 25-30 to 240).<sup>84</sup> Though we must admit that archaeology has only uncovered a fraction of the human settlement activity of this region, an increase of this magnitude is hard to ignore, and it is unlikely we will uncover more evidence that will overturn the late conquest and settlement. It would have to be a huge amount of undiscovered archaeological evidence to support an early conquest date, and that much evidence is hard to miss.

Though not conclusive, there are other indications that also seem to favor the late Exodus view. The book of Judges details attacks from many nations, but never from Egypt, during a time (according to the early Exodus view) when Egypt was most active in Southern Canaan. However the late Exodus places the Israelite expansion into Canaan precisely at a time

<sup>78</sup> Tremper Longman, III, *How to Read Exodus* (Downers Grove, IL: IVP Academic, 2009) 74.

<sup>79</sup> Read the latest summary of this season's dig at [www.biblearchaeology.org/post/2013/07/01/Follow-up-Report-on-the-2013-Season-at-Khirbet-el-Maqatir.aspx](http://www.biblearchaeology.org/post/2013/07/01/Follow-up-Report-on-the-2013-Season-at-Khirbet-el-Maqatir.aspx)

<sup>80</sup> Kitchen, *AOOT*, 67-69.

<sup>81</sup> Bruce K. Waltke, "The Date of the Conquest," *Westminster Theological Journal* 52, no. 2 (1990) 192-93.

<sup>82</sup> Merrill, *Kingdom of Priests*, 91.

<sup>83</sup> Kitchen, *AOOT*, 61-62.

<sup>84</sup> Waltke, "Date of the Conquest" 197.

when Egyptian control over the Levant was relaxing.<sup>85</sup> Also one of the enemies featured in Judges is the Philistines (especially in the Samson cycle). However, the Philistines did not arrive in Southern Canaan until around 1177 BC.<sup>86</sup>

Thus, though he does not advocate either position, B. Waltke aptly states, "the archaeological horizon favors the late date, especially the hundreds of new settlements by pastoral nomads that spring up in Israel at about 1200 BC in contrast to their absence in Late Bronze."<sup>87</sup> So, the biblical numbers indicate an early Exodus, but the biblical geography favors a late Exodus, and the archeological data also lean toward the late Exodus. This writer is comfortable holding a late date Exodus, with a willingness to change in light of new evidence.

### *The Length of the Egyptian Sojourn*

The second number in Scripture affecting our issue is the length of the Israelite sojourn in Egypt. Exodus 12:40-41 clearly states the Israelites lived in Egypt for 430 years. But that figure has been questioned because the LXX of Exodus 12:40-41 says the 430 years covered the time the Israelites lived in Egypt and Canaan, not just Egypt.<sup>88</sup> Paul seems to support the LXX reading when he says the law came 430 years after the Abrahamic covenant (Gal 3:17). The genealogy of only four generations in Exodus 6:16-20 adds up to approximately 430 years thanks to some unusually long lifetimes, but that does not account for the many years the lives of sons and fathers would overlap. Plus, there seems to be reason to believe this genealogy is telescoped.<sup>89</sup> Joshua, Moses's assistant, appears to be eleven generations from Jacob (not four) in 1 Chronicles 7:22-27. Many favor the MT reading of a 430 year sojourn over the LXX and the New Tes-

tament readings, since this aligns with the promise to Abraham of four generations and 400 years in Egypt (Gen 15:13-16). However, in Genesis 15 the 400 years seems to indicate both time in Canaan ("your descendants will be strangers in a land not their own") and in Egypt ("and they will be enslaved and oppressed"). So this passage may not support the MT reading of Exodus 12:40-41 after all. Also the genealogies do not give us enough information to decide either way because we do not know the length of each person's life.<sup>90</sup> There are some long lifetimes listed, but they certainly overlap with the lifetimes of their descendants and should not be used to prove or disprove the length of the sojourn in Egypt.<sup>91</sup>

E. Merrill says one of his problems with a short Egyptian sojourn lies in the difficulty of understanding how the seventy (or seventy-five) persons of Jacob's family at the time of the descent to Egypt multiplied in only 215 years to six hundred thousand men, to say nothing of women and children (Exod 12:37).<sup>92</sup> However, the number of 600,000 able-bodied fighting men seems to be a perfect example of a biblical number that should not be taken literally. This is a huge number. It is larger than the active military forces of almost every country in the world today, including the United Kingdom.<sup>93</sup> It should be noted that these were not active military personnel in the modern sense, but included every able-bodied man over 20 who could fight in the upcoming battles (Num 1:3). Nonetheless, this would be a very large army in modern terms and an enormous (unprecedented?) army in the ancient world. This number also implies a total population of 2.5 to 5 million people,<sup>94</sup> a number that seems unsustainable based on archeological discoveries that do not indicate a population in Canaan anywhere close to that size at any time in antiquity. At its peak, under Solo-

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<sup>85</sup> James K. Hoffmeier, "What is the Biblical Date for the Exodus? A Response to Bryant Wood," *Journal of the Evangelical Theological Society* 50, no. 2 (2007) 242-43.

<sup>86</sup> *Ibid.*, 242.

<sup>87</sup> Waltke, "Date of the Conquest" 200.

<sup>88</sup> The Samaritan Pentateuch also supports the LXX reading, as does Josephus. See Jack Finegan, *Handbook of Biblical Chronology: Principles of Time Reckoning in the Ancient World and Problems of Chronology in the Bible*, rev. ed. (Peabody, MA: Hendrickson, 1998) 204-05.

<sup>89</sup> Peter Enns, *Exodus*, ed. Terry Muck, NIV Application Commentary (Grand Rapids: Zondervan, 2000) 176-77.

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<sup>90</sup> Finegan, *Handbook of Biblical Chronology*, 203-04.

<sup>91</sup> Kitchen, *AOOT*, 55.

<sup>92</sup> Merrill, *Kingdom of Priests*, 95.

<sup>93</sup> Wikipedia, "List of Countries by Number of Military and Paramilitary Personnel," [http://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_number\\_of\\_military\\_and\\_paramilitary\\_personnel](http://en.wikipedia.org/wiki/List_of_countries_by_number_of_military_and_paramilitary_personnel) (accessed 30 Oct, 2013).

<sup>94</sup> Ronald B. Allen, *Numbers*, The Expositor's Bible Commentary, ed. Tremper Longman III and David E. Garland, rev. ed., (Grand Rapids: Zondervan, 2012) 53.

mon, the population of Israel was less than one million.<sup>95</sup>

D. Fouts lists several other problems with this large number: the two midwives could not have handled their workload (unless they were supervisors), the people could not have gathered around to hear Moses and Aaron (Exod 16:8-12), and Israel was smaller than the seven nations then living in Canaan (Deut 7:1,7).<sup>96</sup> This large number also disagrees with other numbers in Scripture: Joshua 4:13 lists only 40,000 troops, not 600,000. The number of first-born males counted by Moses in the wilderness was 22,273 (Num 3:43). Since there is only one first-born male per family, this indicates the approximate number of families (some families may not have a son). But to sustain a fighting population of 600,000 men, this relatively small number of families would need to average 25 sons (or 50 children)!<sup>97</sup>

We can move toward a solution when we realize that ancient people did not use numbers in the same way that we modern people do. For us, accuracy is paramount, whereas we have evidence that ancient people routinely used exaggerated numbers for rhetorical effect, often multiplying by a factor of 10.<sup>98</sup> The large number of men does appear to be a hyperbolic representation of the fighting force, as was a common rhetorical device in the literature of the ancient Near East.<sup>99</sup> Thus a short sojourn is not only possible, it may be preferable.

### *The Life Spans of the Patriarchs*

The third set of numbers we need to consider concerns the lifetimes of the Patriarchs. If we take these numbers at face value, there seems to be no other option than to extend the time of Abraham earlier than the 18<sup>th</sup>/17<sup>th</sup> century date of the destruction of TeH. For the record, the ages listed in Scripture are: Abraham: 175 (Gen 25:7), Isaac: 180 (Gen 35:28), Jacob/Israel: 147 (Gen 47:28), Joseph: 110 (Gen 50:22, 26). Many scholars do take these numbers as written,

<sup>95</sup> Ibid., 63.

<sup>96</sup> David M. Fouts, "A Defense of the Hyperbolic Interpretation of Large Numbers in the Old Testament," *Journal of the Evangelical Theological Society* 40, no. 3 (1997) 377.

<sup>97</sup> Ibid., 378.

<sup>98</sup> Ibid., 383-86.

<sup>99</sup> Ibid., 383-87. Allen, *Numbers*, 68-69.

putting Abraham's life into the Intermediate Bronze age (prior to 2000 BC). If we take an early Exodus date of 1446 BC and add the 430-year sojourn we get 1876 BC as the year Jacob and his family descended into Egypt. Since Jacob was 130 years old at that time (Gen 47:9) he was born in 2006 BC. Isaac was 60 years old when Jacob was born (Gen 25:26), therefore he was born in 2066 BC. The destruction of Sodom and Gomorrah (Gen 19) occurred before the birth of Isaac (Gen 21), perhaps 2067 BC or earlier.<sup>100</sup>

At first glance it seems impossible to constrict the lives from Abraham to Joseph into a shorter window given the life spans recorded in Scripture. T. Bolen says, "The chronology simply will not work, unless you imagine that Abraham died when he was about 30, his son Isaac died when he was about 30, his grandson Jacob died when he was about 30, Joseph died when he was about 30, the Israelite sojourn in Egypt lasted about 40 years, and the wilderness wanderings lasted about 40 years. In short you have to massively compress all of the numbers in the biblical narrative to make everything fit. (By 'compress' I mean to deny and invent your own to suit your theory.)"<sup>101</sup> But this exaggerates the problem. Actually it is possible to keep the unusually long patriarchal life spans and still have the destruction of Sodom occur around 1700 BC by taking a late Exodus (~1250 BC) and a short sojourn of 215 years.<sup>102</sup> However, perhaps we also need to reexamine these unusually long patriarchal ages.

S. Collins believes the ages of the patriarchs should not be interpreted in a modern base-10 system. Of the three sets of numbers, Collins opts for what he terms a middle date for the Exodus (1406 BC), though it is essentially in agreement with the early date (1446 BC).<sup>103</sup> He also holds to a short sojourn in Egypt. However, Collins posits that the ages of the patriarchs contain an honorific value, or perhaps a symbolic value.<sup>104</sup>

<sup>100</sup> Finegan, *Handbook of Biblical Chronology*, 201-02. Merrill, *Kingdom of Priests*, 47-48.

<sup>101</sup> Todd Bolen, "Excavator Finds Evidence of Destruction at Sodom," *BiblePlaces.com blog*, <http://blog.bibleplaces.com/2011/12/excavator-finds-evidence-of-destruction.html> (accessed July 18, 2013).

<sup>102</sup> Finegan, *Handbook of Biblical Chronology*, 206.

<sup>103</sup> Collins and Scott, *Discovering the City of Sodom*, 139-41.

<sup>104</sup> Ibid., 145-46.

In other words, two of the three numerical values need to be changed from the conservative position in order for TeH, with its Middle Bronze destruction, to be Sodom. Either the Exodus is late and the sojourn short, or the sojourn is short and the patriarchal ages contain honorific elements. Another possibility is a late Exodus and shorter patriarchal ages, with a long sojourn. Or there may be a combination of all three. The question we are faced with is whether the author and audience of Genesis used numbers the same way we use numbers today. It is natural to assume that the authors of Scripture thought as we do, and wrote as we would write. And if it were only the archeological evidence from TeH forcing us to question the numbers as they are written, we might be tempted to discount it. But it turns out there is other evidence that would make us want to reevaluate the patriarchal numbers as they are recorded in Genesis.

For many scholars the time frame that fits Abraham's life best is the Middle Bronze Age (1500-1200 BC), not the earlier Intermediate Bronze Age (2350-1500 BC). K. A. Kitchen has listed many lines of external evidence that tie Abraham/Isaac/Jacob/Joseph to the overall period circa 1900-1600 (2000-1500 at the outermost limits).<sup>105</sup> What are some of these lines of evidence? One of the most intriguing is the structure of the treaties and covenants that Abraham and his descendants enter into with their neighbors. Kitchen says, "This format is wholly distinct from those current both in the third millennium and in the middle to late second millennium, and later."<sup>106</sup> Also the price Joseph's brothers received when they sold him as a slave (20 shekels, Gen 37:28) fits the 18<sup>th</sup>/17<sup>th</sup> century BC. "Before this period slaves were cheaper, and after it they steadily got dearer, as inflation did its work."<sup>107</sup> Another interesting parallel relates directly to Sodom: the story of the four kings from the north forming a political alliance to battle the five kings of the Kikkar (Gen 14). Kitchen says, "from circa 2000 to 1750 (1650 at the extreme), we have the one and only period during which extensive power alliances were common in Mesopotamia and with its neighbors."<sup>108</sup>

<sup>105</sup> K. A. Kitchen, *On the Reliability of the Old Testament* (Grand Rapids: Eerdmans, 2006) 358.

<sup>106</sup> Ibid., 323.

<sup>107</sup> Ibid., 344-45.

<sup>108</sup> Ibid., 320.

Other signs of historical synchronicity include: wide scope of travel, long-distance marriages, travel from Canaan to Egypt, nighttime attacks and religious conclusions to war (Gen 14 again), and the adoption of an employee as an heir or the practice of producing an heir by proxy.<sup>109</sup>

In addition to these external signs that Abraham fits into the Middle Bronze Age, Kitchen believes that this period fits best with the internal evidence in the biblical text. He holds to a late date for the Exodus, and a long Egyptian sojourn, which put Abraham and his descendants squarely in the Middle Bronze age.<sup>110</sup> Finegan summarizes these findings from Kitchen with those from W. F. Albright, Roland de Vaux, and John Bright to come to the same conclusion. He says, "This substantial consensus [that the events of Genesis 12-50 fit best in the time between about the twentieth and seventeenth centuries] is taken as convincing in this present book."<sup>111</sup>

### *Evaluating the Evidence*

So, which interpretation needs adjusting—that of the archeological data, or that of the biblical numbers? Bolen adds, "the excavator of Tall el-Hammam insists that by identifying the site as Sodom he is supporting the historicity of the Bible. In fact, if his theory is true, we cannot trust the Bible for accurate details about times and places."<sup>112</sup> But this overstates his case. If TeH is Sodom, we can absolutely trust the Bible about places, but we may need to reexamine our assumptions about how the ancients used numbers.

The only basis for doubting the archeological data identifying TeH as Sodom is a modern interpretation of the biblical numbers. Yet this interpretation of numbers in the biblical text can be questioned for several reasons, not just the archeological data. We know that many of the numbers in the Bible are simply round numbers—the size of large crowds and armies for instance. Second, we have seen there is significant reason to believe the population numbers in Exodus

<sup>109</sup> Ibid., 324-26.

<sup>110</sup> Ibid., 359.

<sup>111</sup> Finegan, *Handbook of Biblical Chronology*, 201.

<sup>112</sup> Todd Bolen, "Arguments Against Locating Sodom at Tall el-Hammam," *BiblePlaces.com blog*, <http://blog.bibleplaces.com/2013/02/arguments-against-locating-sodom-at.html> (accessed July 31, 2013).

and Numbers are used hyperbolically. Third, if one holds to a late date for the Exodus, the number of 480 years in 1 Kings 6:1 cannot be understood literally.

So did the patriarchs really live that long? There is no record of a patriarch ever relating to his grandchildren in Genesis, except for Jacob blessing Joseph's sons (Gen 48), why is that? How did Isaac take over as patriarch of the family if his father—the famed Abraham—continued to live for 75 years after his birth? The same holds true for Isaac's son, Jacob. This does not seem to fit culturally in a strongly patriarchal culture. Plus, at this time we know the ages of the Pharaohs of Egypt—they all lived normal human lifetimes. S. Collins has worked out several schemes by which the ages of the patriarchs include an honorific value. The patriarchal narratives can be preserved if the patriarchs lived normal human lifetimes. But just because a scheme like this can be shown to work does not mean it is proven.<sup>113</sup> Certainly this issue requires more study, and is beyond the scope of the present paper, but one wonders whether the assumption that the ancients used numbers the same way we do is warranted.

It seems like the timeframe evidence covered so far is significantly against TeH until we face one uncomfortable fact. The destruction of BeD was 200-350 years before even the earliest possible date for Abraham's life. Rast dates the destruction of both Bab edh-Dhra and Numeira at 2350 BC.<sup>114</sup> In other words, if we grant that Abraham lived around 2000 BC (against the opinion of most scholars) BeD fails the same timeframe test as TeH by about the same measure! If, however, we place Abraham's life in the Middle Bronze age (1900-1650 BC), then TeH seems to fit, and BeD is clearly disqualified.

In fact the archeological evidence tells us that BeD was not an active city at any time during Abraham and Lot's lifetimes, even if one uses the early dates for

Abraham's life. TeH, by contrast, was the largest and most powerful city in the region, whichever date one chooses for Abraham's life. That makes the southern hypothesis even more far-fetched. Why would Lot bypass the city of TeH on the well-watered Kikkar of the Jordan to trek south to a ghost town? It does not fit with the biblical text at all.

B. Wood acknowledges the discrepancy in the dates, but then dismisses it by saying, "The dates for the Archaic Period only are known to within 200 years."<sup>115</sup> His argument seems to be—though he does not say this explicitly—that different standards apply to dates in the Middle Bronze age versus the Early Bronze age. Sliding the dates 200-300 years in the Early Bronze/Intermediate Bronze age is fine, but moving dates by the same amount in the Middle Bronze age is forbidden. If there is any evidence for this scheme, I have yet to see it.

So, which site wins on the Timeframe test? This is not merely a draw; TeH gains an advantage over BeD since it can fit into at least one of the accepted chronologies for Abraham's life, whereas BeD is outside even the earliest possible dates.<sup>116</sup>

## **Tell/Tall: What Does the Archeological Evidence at Each Site Tell Us?**

### *Evidence of Fiery Destruction*

Both Bab edh-Dhra and Numeira show signs of violent destruction at the end of the Early Bronze III period,<sup>117</sup> as do the other towns at the southern end of the Dead Sea.<sup>118</sup> M. Coogan, the excavator of Numeira says,

Under the topsoil (desert pavement) and a naturally deposited windblown sandy soil, the entire area was covered by the ashy debris of the final destruction of the town, up to 0.40m in depth. This ash contained fragments of wooden beams that had support-

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<sup>113</sup> This paragraph summarizes content from my personal interview with Dr. Steven Collins at Trinity Southwest University in Albuquerque, NM on July 10, 2013. I have tried to quote Collins's published works where possible. This information has not yet been published.

<sup>114</sup> Walter E. Rast, "Bab edh-Dhra and the Origin of the Sodom Saga," in *Archaeology and Biblical Interpretation: Essays in Memory of D. Glenn Rose*, ed. Leo G. Perdue, Lawrence E. Toombs, and Gary L. Johnson, (Atlanta: John Knox Press, 1987) 194.

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<sup>115</sup> Wood, "Discovery of the Sin Cities" 78.

<sup>116</sup> The early destruction of Bab edh-Dhra and Numeira is one factor that leads Walter Rast to join critical scholars in proposing the story of Sodom and Gomorrah is merely a legend/tradition/saga that arose years later—albeit one that was based on the memory of an actual historical incident. See Rast, "Bab edh-Dhra and the Origin of the Sodom Saga" 188-191, 194-197.

<sup>117</sup> Wood, "Discovery of the Sin Cities" 73.

<sup>118</sup> Van Hattem, "Once Again" 88-89.

ed the roofs of the dwellings and lay immediately over the latest occupational layer within each room, sealing the material beneath it. Not infrequently there was mudbrick detritus over the ash, which had resulted from the collapse of the mudbrick superstructures after the final conflagration.<sup>119</sup>

Rast and Schaub confirm the same ashy layer all over their excavations at Bab edh-Dhra. For example, concerning one area they write, "The previous work in Field XVI had uncovered a layer 0.35 m thick of soft ashy material with the character of a midden (Locus 8) that contained a large quantity of well-made EB IV pottery, including many four-spouted lamps." The evidence does seem to suggest that these two cities, and the other cities nearby, were indeed destroyed by a fiery conflagration at the same time.<sup>121</sup> But what caused this catastrophic event?

The evidence at Numeira suggests that the town was abandoned by the majority of its citizens just before its destruction.<sup>122</sup> Based on this, Coogan speculates that an earthquake, followed by fires, and a shift in the course of the nearby stream, may have led to the final destruction of the town.<sup>123</sup> Wood makes much of this earthquake theory, proposing that the earthquake forced combustible materials such as bitumen, petroleum, natural gas and sulfur from the ground, which were then ignited by surface fires or lightning.<sup>124</sup> If this had occurred, Wood says, "it would indeed result in a holocaust such as described in Genesis 19."<sup>125</sup>

So, does this evidence of a fiery conflagration that destroyed these cities signal that we have found Sodom and Gomorrah as Wood suggests? Not so fast! There are several problems that prevent us leaping to this conclusion.

The first significant problem is that the excavators do not agree with Wood's theory. At no point does Coogan propose anything about combustible materials being forced from the ground and ignited. But more tellingly, Schaub and Rast believe Bab edh-Dhra was destroyed by a human assault, not an earthquake or a spontaneous ignition. Evidence for human attack includes, "at least three crania from Tomb G1 that exhibited wounds inflicted by a stone or metal weapon."<sup>126</sup> Wood does acknowledge this discrepancy, but then dismisses it.<sup>127</sup> He mentions that the burning of burial houses (charnel houses) is unprecedented in a military attack.<sup>128</sup> But there could be several possible reasons why these houses were burned.<sup>129</sup>

Second, what is truly unprecedented is the destruction of a city by a leakage of natural gas, petroleum, and bitumen. We are familiar with natural gas; perhaps we have even noticed that telltale smell indicating a leak.<sup>130</sup> Natural gas is explosive, and we have seen stories of natural gas explosions in our day. These explosions can be large enough to destroy a house, but not a city. We are also familiar with petroleum (gasoline), and other oil-based products such as bitumen. These products are flammable, but they are not explosive.<sup>131</sup> The amount needed to destroy an entire city, never mind a large geographical area of several cities has never been documented.<sup>132</sup> Our military does not fill up bombs with gasoline or natural gas; they would not be powerful enough to cause any damage. The only petroleum "bomb" is a Molotov Cocktail! Add to that the fact that no rich deposits of

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<sup>119</sup> Michael D. Coogan, "Numeira 1981," *Bulletin of the American Schools of Oriental Research* 255, (Summer 1984) 76.

<sup>120</sup> R. Thomas Schaub and Walter E. Rast, "Preliminary Report of the 1981 Expedition to the Dead Sea Plain, Jordan," *Bulletin of the American Schools of Oriental Research* 254, (Spring 1984) 55.

<sup>121</sup> Walter E. Rast and R. Thomas Schaub, "Preliminary Report of the 1979 Expedition to the Dead Sea Plain, Jordan," *Bulletin of the American Schools of Oriental Research* 240, (Fall 1980) 46-47.

<sup>122</sup> Coogan, "Numeira 1981" 80-81.

<sup>123</sup> *Ibid.*, 81.

<sup>124</sup> Wood, "Discovery of the Sin Cities" 75.

<sup>125</sup> *Ibid.*

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<sup>126</sup> Schaub and Rast, "1981 Expedition" 39.

<sup>127</sup> Wood, "Discovery of the Sin Cities" 76.

<sup>128</sup> *Ibid.*

<sup>129</sup> Collins and Scott, *Discovering the City of Sodom*, 151-52.

<sup>130</sup> That odor is added to our natural gas so we can detect a leak. Natural gas by itself is odorless.

<sup>131</sup> Of course a measured amount of the correct distillate of gasoline, when mixed with the right amount of oxygen in the combustion chamber of your car's engine does explode. But by itself in the atmosphere, it is not explosive. One of the reasons we use gasoline in our cars, is that it can be stored safely in a gas tank. In its natural state it is relatively stable, as are other oil products that we use in our cars, and on our roads.

<sup>132</sup> *Ibid.*, 150-51.

oil or petroleum or natural gas in the area south east of the Dead Sea have ever been found.<sup>133</sup>

Third, the fact that Numeira was abandoned by most of its occupants before its destruction does not fit with the biblical text at all. In Genesis 19, only Lot and his family are able to flee from Sodom. In fact Numeira is a terrible fit for biblical Gomorrah on other counts. It was much smaller than even BeD, which was 10-12 acres<sup>134</sup> (by contrast, TeH is a huge site at 90-100 acres).<sup>135</sup> Numeira is not particularly close to BeD. It sits 13-15 kilometers away, about 8-9 miles. Furthermore, it existed as a town for a mere 100-150 years.<sup>136</sup>

Lastly, Tall el-Hammam has a thicker destruction layer over a much greater area than both Bab edh-Dhra and Numeira combined. It is TeH that has destruction that cannot be explained as a human attack,<sup>137</sup> not the other sites. The evidence unearthed at TeH displays an incredibly consistent "Late Bronze Age gap." The pottery and other artifacts show constant occupation through the Middle Bronze age, then complete abandonment of the entire area for 600-700 years, until Iron Age II.<sup>138</sup> So if the evidence of a fiery destruction is the best archaeological evidence for BeD being Sodom, then the debate is already lost.

### *Sodom's City Gate*

By contrast, there is much archeological evidence linking TeH to Sodom. Due to space constraints, one example will have to suffice. Genesis clearly says Lot was "sitting in the gate of Sodom" (Gen 19:1), which indicates the city was fortified with a wall. In 2012, the excavators at TeH found "one of the most impressive gate systems ever unearthed in the southern Levant."<sup>139</sup> This gate complex is approximately 140 feet

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<sup>133</sup> Ibid. Billington, "Tall el-Hammam Is Not Sodom" 12, claims Israeli oil drillers found oil sand at the southern end of the Dead Sea 40 years ago, but he gives no substantiation for this claim.

<sup>134</sup> Collins, "Tall el-Hammam IS Sodom" 4.

<sup>135</sup> Collins, "Where is Sodom?" 37.

<sup>136</sup> Rast and Schaub, "Expedition to the Southeastern Dead Sea" 16. Collins, "Tall el-Hammam IS Sodom" 4.

<sup>137</sup> Collins, "Where is Sodom?" 41, 70. Collins, "Tall el-Hammam IS Sodom" 4-5. Collins and Scott, *Discovering the City of Sodom*, 164-81.

<sup>138</sup> Ibid., 164, 173-74.

<sup>139</sup> Ibid., 168. Collins, "Tall el-Hammam IS Sodom" 9-10.

in width, and is connected with a large exterior gate plaza for the commercial activity of such a large city.<sup>140</sup> BeD also had a gate connected to a plaza area. However, as Schaub writes, "during the Early Bronze Age III [2700 to 2200 BC], the gateway was blocked with a secondary wall made up of smaller stones."<sup>141</sup> Again, this would seem to disqualify BeD as the site for Sodom—how could Lot sit in a gate that had been blocked up for hundreds of years before he could possibly have arrived there?

Clearly TeH has strong archeological evidence linking it to biblical Sodom, whereas the evidence at BeD is either inconclusive, or disqualifies the site. Thus TeH has the advantage in the Tall/Tell category.

### **Conclusion**

When Bab edh-Dhra and Numeira were proposed as locations for Sodom and Gomorrah there were no other acceptable options. In 1924, when the renowned archaeologist W. F. Albright advocated the southern end of the Dead Sea as the best option to locate the Cities of the Plain, that seemed the most likely area to search for them. Since Bab edh-Dhra and Numeira are the only cities of any size in this region, their identification is understandable. Add to that the fact that they were destroyed by fire, within a few hundred years of an early date for Abraham's life, and one has the makings of a match. However, it is instructive to note that even before Tall el-Hammam was discovered, these sites had not gained consensus among biblical scholars. For many archaeologists Bab edh-Dhra and Numeira are too small, not in the right geographical area, and were not destroyed in the appropriate time frame to be considered as Sodom and Gomorrah.

However, if a northern location for Sodom is not ruled out *a priori*, then we have a much more likely candidate for Sodom at Tall el-Hammam. It is instructive to note that even among those who disagree with Collins' identification of TeH with Sodom not everyone is convinced BeD is Sodom.<sup>142</sup>

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<sup>140</sup> Collins and Scott, *Discovering the City of Sodom*, 168.

<sup>141</sup> R. Thomas Schaub, "Bab edh-Dhra," in *The New Encyclopedia of Archaeological Excavations in the Holy Land*, ed. Ephraim Stern, (Jerusalem: Israel Exploration Society & Carta, 1993) 1:134.

<sup>142</sup> Billington, "Tall el-Hammam Is Not Sodom" 12.

As the evidence stands today, it appears that Tall el-Hammam is by far the most likely site for biblical Sodom. In the four categories in this paper, TeH clearly won the Text, and Tall/Tell challenges. And any advantage BeD may have gained in the Tradition category was balanced out with a win for TeH in the Timeframe test. Unless and until a more likely site for Sodom is discovered, the most likely site for biblical Sodom is TeH.

If TeH is Sodom, then it means we must reexamine our assumptions about how the ancients used numbers. The modernist interpretation of biblical numbers began with Bishop Ussher in 1650. That same method continues to be used by some scholars who assume that biblical numbers should be understood in the same way they would be if written today. By this calculation, the destruction of Sodom occurred in the 21<sup>st</sup> century BC. But Tall el-Hammam was destroyed in the 18<sup>th</sup>/17th century BC. So if TeH is Sodom, then we have misunderstood how the ancients used numbers. Specifically, three events need to be reexamined: the date of the Exodus, the length of the Israelite sojourn in Egypt, and the length of lifetimes for the patriarchs.

On the positive side, if TeH is Sodom not only does it confirm another biblical event, but also it opens up new vistas for biblical research into the times of the patriarchs. First, there are the discoveries made each season at the TeH dig site. But second, the insights we currently have, and will learn, about the Middle Bronze age can be applied to the patriarchal narrative. We will be able to know more about how Abraham, Isaac, Jacob and Joseph lived, and we will be able to understand and teach the biblical text with greater accuracy and authority.

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