

18:16 – Then the men set out from there, and they looked down toward Sodom. And Abraham went with them to set them on their way.

	6965 [e]	8033 [e]	582 [e]		8259 [e]	5921 [e]	6440 [e]
	way-yā-qu-mū	miš∙šām	hā·'ă·nā·šîm,		way⋅yaš⋅qi⋅̄pū	ʻal-	pə∙nê
16	וַיַּקְמוּ	ಭಫುದ	הָאֲנָשִׁים	•	יַיַּשְׁקָפוּ	עַל־	פָּבִיי
	And rose	from there	the men		and looked	-	toward
	Conj-w V-Qal-ConsecImperf-3mp	Prep-m Adv	Art N-mp		Conj-w V-Hifil-ConsecImperf-3mp	Prep	N-cpc

7971 [e] 5973 [e] 1980 [e] 85 [e] 5467 [e] lə·šal·lə·ḥām. wə·'ab·rā·hām, ʻim·mām hō·lêk sə·dōm; לשלחם: הלַדְּ וָאֹבָרהֹם סָלָם עָמָם to send them with them went and Abraham Sodom Prep-I | V-Piel-Inf | 3mp | Prep | 3mp | V-Qal-Prtcpl-ms | Conj-w | N-proper-ms N-proper-fs

- 1. Abraham completes his role as the perfect host (contrary to what we will see in Sodom)
- 2. They are just outside Mamre
 - a. Today there is an elev ated village called Beni Na'im 3 miles east of Hebron
 - b. Dead Sea could be seen through gaps on clear day some 18 miles away





18:17 - The Lord said, "Shall I hide from Abraham what I am about to do,

6213 [e] 'ō·śeh.		834 [e] 'ă·šer	85 [e] mê·'ab·rā·hām,	589 [e] 'ă∙nî	3680 [e] ham· <u>k</u> as·seh		559 [e] 'ā∙mār;	3068 [e] Yah⋅weh	
עֿעֶּה:	אָנִי	אָשֶׁר		אַנּ	הַמְכַּמֶּה shall hide	•	אָמֶר said	וֵיהֹוָה And Yahweh	17
am doing V-Qal-Prtcpl-ms	Pro-1cs	what Pro-r	from Abraham Prep-m N-proper-ms	Pro-1cs				Conj-w N-proper-ms	

- 1. "Shall I hide from Abraham?"
 - a. Amos 3:7 ""For the Lord God does nothing without revealing his secret to his servants the prophets."
- 2. Is God revealing to Abraham:
 - a. Sodom's future fate?
 - b. Abraham and his family's future role?
 - i. The text goes on to talk about Abraham's family

18:18 – seeing that Abraham shall surely become a great and mighty nation, and all the nations of the earth shall be blessed in him?

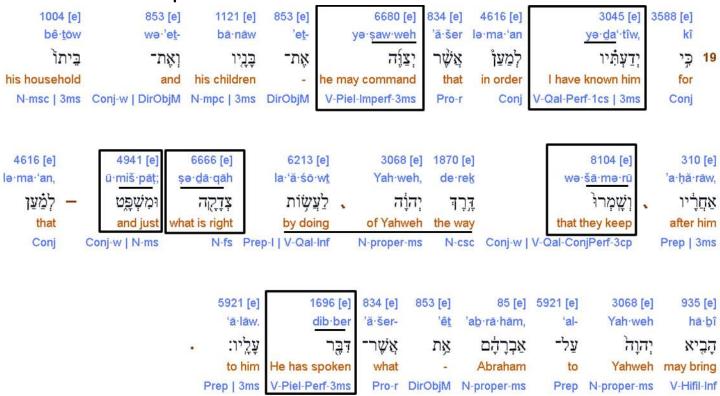
	85 [e]	1961 [e]	1961 [e]	1471 [e]	1419 [e]	6099 [e]	1288 [e]
	wə·'ab·rā·hām,	hā∙yōw	yih∙yeh	lə∙gō·w	gā·dō·wl	wə·'ā·ṣūm;	wə·nib·rə·kū
18	וָאַכְרָהָׄם	יָּיָנְ	וָהָיָה.	לְגָּוֹי	נָּדָוֹל	וֹמֹאֲוֹם	וְנָבְרְכוּ
	since Abraham	surely	shall become	a nation	great	and mighty	and shall be blessed
	Conj-w N-proper-ms	V-Qal-InfAbs	V-Qal-Imperf-3ms	Prep-I N-ms	Adj-ms	Conj-w Adj-ms	Conj-w V-Nifal-ConjPerf-3cp

776 [e] 1471 [e] 3605 [e]
hā·ʾā·reṣ. gō·w·yê kōl bōw,
בָּלְ גּוֹנֵיִ הָאָבֶרְץ.

of the earth the nations all in him
Art | N-fs N-mpc N-msc Prep | 3ms

- 1. Indicates God's promise or covenant with Abraham is sure and includes:
 - a. All nations will be blessed
 - i. The cities on the plain are one of the nations
 - ii. Abraham has his first chance to bless a nation by interceding.
 - b. God is concerned with all nations
 - c. Abram is concerned with the Judge of the nations
- 2. The cities on the plain are one of the "nations"

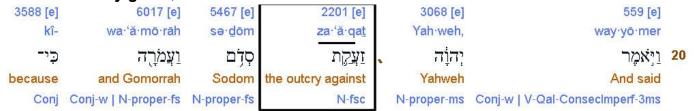
18:19 – For I have chosen him, that he may command his children and his household after him to keep the way of the Lord by doing righteousness and justice, so that the Lord may bring to Abraham what he has promised him."



- 1. This verse is filled with covenant terminology:
 - a. "to know", "chosen" = YADA refers to election and familiarity (and, is not BAHAR "to choose")
 - b. "command" = SIWWA
 - c. "keep" = **SAMAR**
 - d. "righteousness" = SEDAQA
 - e. "justice" = MISPAT
 - f. "spoken" = **DIBBER**
- 2. Why will Abraham be this influential with nations?
 - a. Covenant God gave him
 - b. Train his family since they will be the generations that continue to "bless" nations
 - i. The one man Abraham will bless his generation, but then Isaac, Jacob, Joseph, Ephraim, Moses, Daniel, Jonah, Nehemiah, Jesus, Peter, Paul, etc. will have to also bless the nations in their time.

- 3. Abraham's involvement with YWHW naturally means Abraham will instruct his household in "the way of the Lord" (*DEREK YHWH*)
- 4. "Doing what is right and just" (**SEDAQA UMISPAT**) refers to ethical behavior toward others including social justice
 - a. "Justice" (MISPAT) is achieved by "upright" 9SEDAQA) conduct
 - i. Isaiah 5:7 "For the vineyard of the Lord of hosts is the house of Israel, and the men of Judah are his pleasant planting; and he <u>looked for justice</u>, but behold, <u>bloodshed</u>; <u>for righteousness</u>, but behold, an <u>outcry</u>!"
 - ii. Abraham (and, his family) are the contrast to Sodom
- 5. Abraham will teach his family and his family will teach the world
 - a. This is the source of ethical monotheism
 - i. This was a contrast to pagan mythology with impulsive behavior of gods
 - ii. This IS in contrast to today's secular humanism with evolution and materialism
 - b. YHWH (unlike the pagan gods) is morally predictable
 - c. A moral God treats us morally
 - d. A moral God expects us to treat others morally

18:20 – Then the Lord said, "Because the outcry against Sodom and Gomorrah is great and their sin is very grave,



אַלְן = /zah-ak/ - "cry", "outcry", "cry for help" as in a "shriek"



- 1. Previously YHWH had hear Sarah laugh. Now he hears the outcry of victims
- 2. The Lord tips off Abraham concerning what he is about to do
- 3. The Lord investigates for himself wo he Klnows for himself
- 4. The Lord is acting JUSTLY by not simply, quickly sending judgment
 - a. The Lord is not just going to hear about the crimes
 - b. The Lord is going to know and see the facts
 - c. This is what that Lord did at Babel:
 - i. Genesis 11:5 "the Lord came down to <u>see</u> the city and the tower, which the children of man had built."
 - ii. Genesis 11:7 "Come, <u>let us go down</u> and there confuse their language, so that they may not understand one another's speech."
- 5. Abraham knows this will result in judgment since he himself has heard (and, seen) the outcry.
 - a. Heaven heard the outcry

- b. Likely, the surrounding locations had heard the outcry
- c. Abraham must have heard the outcry
- 6. "Outcry" is the terrified, oppressed cry of Sodom's victims suffering social injustice
 - a. **ZA'AQA** = Genesis 18:20 "cry", "outcry", "cry for help" as in a "shriek"
 - b. **SE'AQA** = Genesis 18:21 "cry", "outcry", "cry for help" as in a "shriek"
 - c. These two words are the cry of the oppressed due to harsh treatment
 - d. Ezekiel 16:48-50 described Sodom like this:

"As I live, declares the Lord God, your sister Sodom and her daughters have not done as you and your daughters have done. Behold, this was the guilt of your sister Sodom: she and her daughters had <u>pride</u>, <u>excess of food</u>, and <u>prosperous **ease**</u>, but <u>did not aid the poor and needy</u>. They were <u>haughty</u> and did an <u>abomination before me</u>. So I removed them, when I saw it."

- e. These are cries of pain; cries for vengeance
- f. These cries come from the city and its people
- 7. Prophets warn of Sodom's social injustice:
 - a. Isaiah 1:9-10 "If the Lord of hosts had not left us a few survivors, we should have been like Sodom, and become like Gomorrah. Hear the word of the Lord, you rulers of Sodom! Give ear to the teaching[b] of our God, you people of Gomorrah!"
 - b. Amos 4:11 "I overthrew some of you, as when God overthrew Sodom and Gomorrah, and you were as a brand plucked out of the burning; yet you did not return to me," declares the Lord."
 - c. 2 Peter 2:6-10 "if by turning the cities of Sodom and Gomorrah to ashes he condemned them to extinction, making them an example of what is going to happen to the ungodly; and if he rescued righteous Lot, greatly distressed by the sensual conduct of the wicked (for as that righteous man lived among them day after day, he was tormenting his righteous soul over their lawless deeds that he saw and heard); 9 then the Lord knows how to rescue the godly from trials, and to keep the unrighteous under punishment until the day of judgment, and especially those who indulge[e] in the lust of defiling passion and despise authority."
- 8. Sodom's sin is:
 - a. "Great RABBA
 - b. "Grievous DABEDA ("very heavy)
 - c. Similar to Noah's day when it is called RABBA "Great was evil of humanity." (Gen. 6:5)
- 9. Sodom cound not repent since they had no basic morality or aguilt or conscience.
 - a. They were like Isaiah 5:20. They didn't know. They were gone: "Woe to those who call evil good and good evil, who put darkness for light and light for darkness, who put bitter for sweet and sweet for bitter!"
- 10. Sodom was a microcosm of two previous world situations:
 - a. The Flood of Noah's day
 - b. The Tower of Babel

18:21 – I will go down to see whether they have done altogether according to the outcry that has come to me. And if not, I will know."



18:22 – So the men turned from there and went toward Sodom, but Abraham still stood before the Lord.

- 1. "Stand before" is an early occurrence of the prophet in the OT
 - a. Jeremiah 15:1 "Then the Lord said to me, "Though Moses and Samuel stood before me, yet my heart would not turn toward this people. Send them out of my sight, and let them go!"
 - b. Jeremiah 15:19 "Therefore thus says the Lord:
 - c. "If you return, I will restore you, and you shall stand before me. If you utter what is precious, and not what is worthless, you shall be as my mouth. They shall turn to you, but you shall not turn to them."
- 2. Two pillars of God's character
 - a. Divine justice
 - b. Divine mercy
- 3. Abraham is caught between justice and mercy
- 4. POINT: God's actions in history cannot be reduced to a formula
 - a. Here:
 - i. Lot is spared
 - ii. Sodom and cities consumed
 - iii. Lot pleads to have Zoar spared (19:21) showing God spared guilty on account of Lot's request.

18:23 – Then Abraham drew near and said, "Will you indeed sweep away the righteous with the wicked?

18:24 – Suppose there are fifty righteous within the city. Will you then sweep away the place and not spare it for the fifty righteous who are in it?

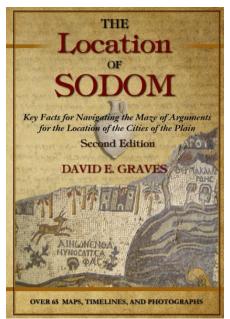
- 1. 50-45 (just five less)-40-30-20-10 (a quorum of 10 could change the city
- 2. Abram doesn't ask to preach. The culture is gone.
- 3. Abram's concern is God's justice in the nations

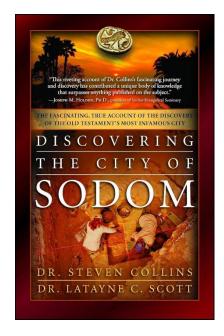
- 4. God can b e merciful because he is both just and righteous
- 5. What concerns God more about Sodom's future?
 - a. Judgment Now?
 - b. Mercy for later if the remnant of the righteous 10 can teach and lead to righteousness?
- 6. The issue is ethical behavior in society, not guilty before God
- 18:25 Far be it from you to do such a thing, to put the righteous to death with the wicked, so that the righteous fare as the wicked! Far be that from you! Shall not the Judge of all the earth do what is just?"
- 18:26 And the Lord said, "If I find at Sodom fifty righteous in the city, I will spare the whole place for their sake."
- 18:27 Abraham answered and said, "Behold, I have undertaken to speak to the Lord, I who am but dust and ashes.
- 18:28 Suppose five of the fifty righteous are lacking. Will you destroy the whole city for lack of five?" And he said, "I will not destroy it if I find forty-five there."
- 18:29 Again he spoke to him and said, "Suppose forty are found there." He answered, "For the sake of forty I will not do it."
- 18:30 Then he said, "Oh let not the Lord be angry, and I will speak. Suppose thirty are found there." He answered, "I will not do it, if I find thirty there."
- 18:31 He said, "Behold, I have undertaken to speak to the Lord. Suppose twenty are found there." He answered, "For the sake of twenty I will not destroy it."
- 18:32 Then he said, "Oh let not the Lord be angry, and I will speak again but this once. Suppose ten are found there." He answered, "For the sake of ten I will not destroy it."
- 18:33 And the Lord went his way, when he had finished speaking to Abraham, and Abraham returned to his place.
 - 1. Action begins and ends in Mamre
 - 2. Abraham believes ten people could be a blessing, teach the city, and turn history.

BOOKS:

2013, "Discovering the City of Sodom", by Dr. Steven Collins

- Amazon https://a.co/d/hynNlcf
- Steven Collins video 2024, "Discovering the City of Sodom": https://youtu.be/1MHCyrAi4gs?si=MOUgfgHANKBkM0hA
- Sean McDowell interviews Dr. Steve Collins video: https://youtu.be/GkATIhRxxaE?si=fngSlQbxS_lunY0z





2016 (revised 2018), "The Location of Sodom", by David E. Graves.

- Amazon https://a.co/d/6Azlbkt
- Dr. David E. Graves blogsite -

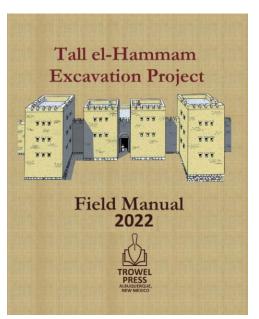
https://smyrnaean.blogspot.com/2014/06/key-facts-for-location-of-

sodom-student.html

• Dr. Graves was a square supervisor and field supervisor at Tall el-Mammam under Dr. Steve Collins



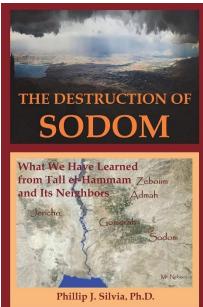
- Amazon https://a.co/d/1NHb7iy
- Dr. Phillip Silvia and staff https://tallelhammam.com/tehep-staff



2022, "Tall el-Hammam

Excavation Project: Field Manual 2022", by Steven Collins,
Carroll Kobs, Phillip Silvia

Amazon - https://a.co/d/dbhOKFo



WEBSITES:

- Tall el-Hammam Excavation Project website https://tallelhammam.com/
- Scientific report from "Nature" on "Airburst at Tall el-Mammam" https://www.nature.com/articles/s41598-021-97778-3
- Video with images: https://youtu.be/Gd1aohL5QqQ?si=vV FA5mIOJ7hc7Z-
- Article, "What if Sodom Has Been Found" <a href="https://www.beyond-today.ca/beyond-today-magazine/what-if-sodom-has-been-found-today-magazine/what-sodom-has-been-found-today-magazine/what-sodom-has-been-found-today-magazine/what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom-has-been-found-today-what-sodom
- Leen Ritmeyer's drawings of Tall el-Hammam (Sodom) https://www.ritmeyer.com/product-category/image-library/biblical-sites/jordan/sodom-tall-el-hammam/
- Todd Bolen blog supporting the southern site for Sodom with good comments from several scholar including Steven Collins - https://www.bibleplaces.com/blog/2012/01/biblical-problems-with-locating-sodom/

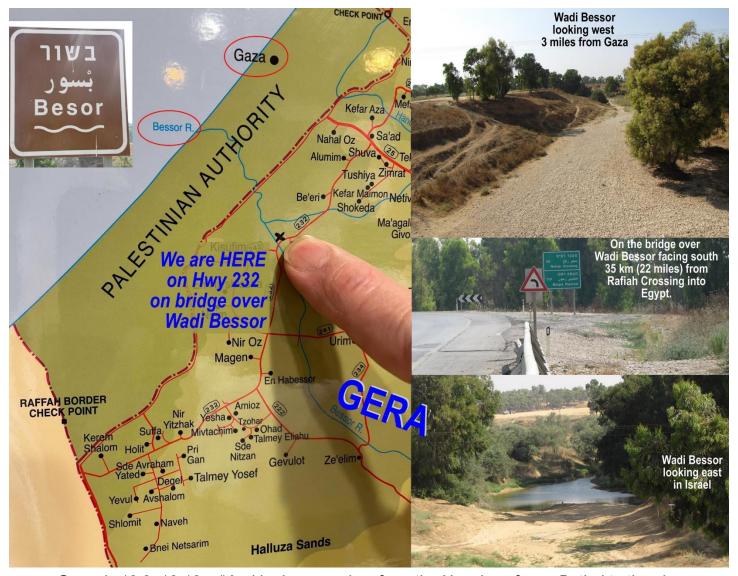
2025 was Steven Collins' 16th season to excavate at Tall el-Hammam

Three Theories for Sodom's location:

- 1. Southern Sodom Theory (SST) Southern Dead Sea Area
 - a. Bab edh Dhra /bab-ed-rah/ supported by many including Dr. Bryant G. Wood
- 2. Inundation Theory covered by the Dead Sea by the southern 1/3 of the water.
- 3. Northern Sodom Theory
 - a. Tall el-Hammam supported by Dr. Steven Collins of Trinity Southwest University

Bible verses:

- Genesis 10, 13, 14, 18, 19
- Genesis 10:19 Canaanite boundary:
 - "And the territory of the Canaanites extended from <u>Sidon</u> in the direction of <u>Gerar</u> as far as <u>Gaza</u>, and in the direction of <u>Sodom, Gomorrah, Admah, and Zeboiim</u>, as far as <u>Lasha</u>."
 - o NORTH: marked by "Sidon" in Phoenicia
 - o WEST: marked by "Gaza" in Philistia
 - SOUTH: marked by "<u>Gerar</u>" in Negev on Egypt's border just SW of Beersheba and SE of Gaza
 - o EAST: Cities of the Plain as far as "Lasha" (Zoar) in Jordan
 - The location of "Lasha" is unknown and disputed see details here https://www.openbible.info/geo/ancient/adaef13/lasha



- Genesis 13:3, 10-13 "And he journeyed on from the Negeb as far as Bethel to the place where his tent had been at the beginning, between Bethel and Ai,... And Lot lifted up his eyes and <u>saw that the Jordan Valley</u> was well watered everywhere like the garden of the Lord, like the land of Egypt, in the direction of Zoar. (This was before the Lord destroyed <u>Sodom and Gomorrah</u>.) So Lot chose for himself all the Jordan Valley, and Lot journeyed east. Thus they separated from each other. Abram settled in the land of Canaan, while Lot settled among the cities of the valley and moved his tent as far as Sodom. Now the men of Sodom were wicked, great sinners against the Lord."
 - or, "all the plain of the Jordan" from Hebrew KIKKAR HAYYARDEN
 - Abram and Lot are between Bethel and Ai looking east toward "Zoar"
 - o "Zoar" is "b'kh" and is one of the cities of the Plain
 - Again, Zoar (or, "Lasha") is the eastern boundary just as Lasha was in Genesis
 10:19
 - Lot saw the Plain or KIRKAR all the way to Zoar
 - Lot did not see 50 miles south to see the land away from the Jordan River's fresh water system.

- Genesis 14:2, 8, 10, 11 -
 - 14:2 "these kings made war with Bera king of <u>Sodom</u>, Birsha king of <u>Gomorrah</u>, Shinab king of <u>Admah</u>, Shemeber king of <u>Zeboiim</u>, and the king of <u>Bela</u> (that is, <u>Zoar</u>)."
 - 14:8 "Then the king of <u>Sodom</u>, the king of <u>Gomorrah</u>, the king of <u>Admah</u>, the king of <u>Zeboiim</u>, and the king of <u>Bela</u> (that is, <u>Zoar</u>) went out, and they joined battle in the Valley of Siddim."
 - 14:10 "Now the valley of Siddim was full of tar pits; and the kings of <u>Sodom and Gomorrah</u> fled, and they fell there, and those who remained fled to the hills."
 - 14:11 "They took all the goods of <u>Sodom and Gomorrah</u>, and all their food, and went their way."
- Genesis 18:20 "Yahweh said, 'Because the cry of <u>Sodom and Gomorrah</u> is great, and because their sin is very grievous.' "
- Genesis 19:20-23, 24, 28 -
 - 19:20 "Behold, this city is near enough to flee to, and it is a little one. Let me escape there—is it not a <u>little one</u>?—and my life will be saved!" He said to him, "Behold, I grant you this favor also, that <u>I will not overthrow the city of which you have spoken</u>. Escape there quickly, for I can do nothing till you arrive there." Therefore the name of the city was called <u>Zoar</u>. The sun had risen on the earth when Lot came to Zoar."
 - o Zoar means "little one"
 - 19:24 "Then Yahweh rained on <u>Sodom and on Gomorrah</u> sulfur and fire from Yahweh out of the sky."
 - 19:28 "He looked toward <u>Sodom and Gomorrah</u>, and toward <u>all the land of the plain</u>, and looked, and saw that the smoke of the land went up as the smoke of a furnace."
 - o From Mamre by Hebron Abraham can see the smoke
- Numbers 21:18-20 "And from the wilderness they went on to Mattanah, and from Mattanah to Nahaliel, and from Nahaliel to Bamoth, and from Bamoth to the valley lying in the region of Moab by the top of Pisgah that looks down on the <u>desert</u> [Jeshimon]."



 Numbers 22:1 – "Then the people of Israel set out and camped in the plains of Moab beyond the Jordan at Jericho."



- Deuteronomy 29:23 "the whole land burned out with brimstone and salt, nothing sown and nothing growing, where no plant can sprout, an overthrow like that of <u>Sodom and Gomorrah</u>, Admah, and Zeboiim, which the Lord overthrew in his anger and wrath."
 - Moses wrote Deuteronomy from Abel-Shittim (Tall el-Hammam)
 - Abel-Shittim was:
 - Israel's 42 place of encampment during their time in the wilderness
 - Israel's last camp before they crossed the Jordan into the Promised Land
 - Numbers 33:48-49 "And they set out from the mountains of Abarim and camped in the plains of Moab by the Jordan at Jericho; they camped by the Jordan from Beth-jeshimoth as far as Abel-shittim in the plains of Moab."



- Numbers 26:3 "
- Numbers 31:12 "
- Deuteronomy 32:32-33 For their vine comes from the vine of <u>Sodom</u> and from the fields of <u>Gomorrah</u>; their grapes are grapes of poison; their clusters are bitter; their wine is the poison of serpents and the cruel venom of asps."
- Isaiah1:9-10 "Unless Yahweh of Armies had left to us a very small remnant, we would have been as <u>Sodom</u>, we would have been like <u>Gomorrah</u>. Hear the word of Yahweh, you rulers of <u>Sodom</u>! Listen to the law of our God, you people of <u>Gomorrah</u>!"
- Isaiah13:19 "Babylon, the glory of kingdoms, the beauty of the Chaldeans' pride, will be like when God overthrew Sodom and Gomorrah."

- Jeremiah 23:14 "But in the prophets of Jerusalem I have seen a horrible thing: they commit adultery and walk in lies; they strengthen the hands of evildoers, so that no one turns from his evil; all of them have become like <u>Sodom</u> to me, and its inhabitants like <u>Gomorrah</u>."
- Jeremiah 49:18 "As in the overthrow of <u>Sodom and Gomorrah</u> and the neighbor cities of it, says Yahweh, no man shall dwell there, neither shall any son of man sojourn therein."
- Jeremiah 50:40 "As when God overthrew <u>Sodom and Gomorrah</u> and the neighbor cities of it, says Yahweh, so shall no man dwell there, neither shall any son of man sojourn therein."
- Amos 4:11 "I overthrew some of you, as when God overthrew <u>Sodom and Gomorrah</u>, and you were as a brand plucked out of the burning; yet you did not return to me,' declares the Lord."
- Zephaniah 2:9 "Therefore as I live, says Yahweh of Armies, the God of Israel, surely Moab will be as <u>Sodom</u>, and the children of Ammon as <u>Gomorrah</u>, a possession of nettles, and salt pits, and a perpetual desolation. The remnant of my people will plunder them, and the survivors of my nation will inherit them."
- Matthew 10:15 "Most certainly I tell you, it will be more tolerable for the land of <u>Sodom and</u> <u>Gomorrah</u> in the day of judgment than for that city."
- Mark 6:11 "Whoever will not receive you nor hear you, as you depart from there, shake off
 the dust that is under your feet for a testimony against them. Assuredly, I tell you, it will be
 more tolerable for <u>Sodom and Gomorrah</u> in the day of judgment than for that city!"
- Ro0mans 9:29 "As Isaiah has said before, 'Unless the Lord of Armies had left us a seed, we would have become like <u>Sodom</u>, and would have been made like <u>Gomorrah</u>.' "
- 2 Peter 2:6, "if by turning the <u>cities of Sodom and Gomorrah</u> to ashes he condemned them to extinction, making them an example of what is going to happen to the ungodly."
- Jude 1:7 "Even as <u>Sodom and Gomorrah</u>, and the cities around them, having, in the same way as these, given themselves over to sexual immorality and gone after strange flesh, are set forth as an example, suffering the punishment of eternal fire."



1000 BC

Jar Handle excavated at Tall el

Hammam in Jordan or ancient Sodom



FROM TALL al-Hamman 1000BC

1000 BC Jar Handle excavated at Tall el Hammam in Jordan or ancient Sodom



From March 20, 2016:

A friend who had recently returned from an archaeological dig in Jordan at the Tall el-Hammam excavation site brought a sling stone to church today to show me. It is dated to the Iron Age (around 1000 BC). This sling stone had been shaped into a sphere about the size of a tennis ball, and has a flat side cut which would have allowed it to set on a wall or other surface without rolling away while waiting to be fired during a military operation. (this artifact was allowed to be taken from the site because it was not found in situ because it had rolled out of place. If it had been found in situ it would have been archived and filed.)







Text below taken from site "BEYOND TODAY" in an article entitled: "WHAT IF SODOM HAS BEEN FOUND" by Peter Eddington, Dec. 29, 2021

LINK→ https://www.beyond-today.ca/beyond-today-magazine/article/beyond-today/beyond-today-magazine/what-if-sodom-has-been-found

The area that previously had been so lush and verdant as to be compared to the Garden of Eden and fertile Egypt (Genesis 13:10) was now a scene of smoldering, smoking desolation. Sodom, Gomorrah and the surrounding towns and villages were gone, reduced to rubble and ashes from the fiery blast.

The case for a cosmic airburst

Is there any correlation between what scientists have recently discovered and the biblical passages we've just read?

On Sept. 20, Dr. Phillip Silvia, director of scientific analysis for the Tall el-Hammam Excavation Project, announced the publication of the earlier-mentioned paper in Nature Scientific Reports titled "A Tunguska Sized Airburst Destroyed Tall el-Hammam, a Middle Bronze Age City in the Jordan Valley Near the Dead Sea."

It provides detailed forensic evidence that a cosmic airburst obliterated Tall el-Hammam, the largest city in the Dead Sea area for centuries before or after, an event they date at around 1650 B.C.

Tall el-Hammam excavation director Dr. Steven Collins has long proposed the site as the most likely candidate for the biblical city of Sodom. It's in the right place, based on many geographical clues in Genesis.

Over the years of excavation at the site, the team has documented a massive 4.5-foot-thick (1.5 meter) destruction layer beneath the surface of the artifact-filled, half-mile-long mound. Such layers are fairly common at ancient sites and usually indicate deliberate burning from military conquest or accidental burning due to human negligence or natural events such as earthquakes. Usually the cause is fairly easy to identify due to the associated destruction evidence. But what caused the extensive destruction here?

Comet Research Group's analysis

In 2014, the Comet Research Group (CRG), a non-profit corporation in Arizona, was invited to assist in the examination of material evidence from within the destruction layer. The CRG has authored dozens of articles documenting cosmic catastrophes impacting our planet.

The Comet Research Group is not a religious group. It's made up of comet scientists. The group's website states: "Think our last space attack was 65,000,000 years ago from the 'dinosaur-killer' asteroid? Think again. Killer comets are more common that you've been taught. At CRG, our mission is to prove it and to do something about it before your city is next."

The archaeological history of Tall el-Hammam was well defined after 15 field seasons, but a far different set of skills was needed to properly investigate the destruction layer. The CRG had the technical and forensic ability to determine whether the field evidence supports the biblical description.

Remarkably, the biblical account of destruction from the sky turned out to be supported by numerous lines of geochemical and material evidence buried below the surface of the ground.

Something had demolished the upper 40-some feet of the four- to five-story palace structure and blasted away the massive 13-foot-thick mud brick defensive walls of the city. The few skeletal remains showed "fragmentation" and "extreme disarticulation"—meaning the bodies had been violently ripped apart.

A carbon-and-ash-rich destruction layer contained concentrations of shocked quartz, melted pottery and mud bricks, diamond-like carbon, soot, iron- and silicon-rich spherules and spherules from melted plaster. Traces were also found of melted platinum, iridium, nickel, gold, silver, zircon, chromite and quartz.

Heating experiments indicate temperatures must have instantly exceeded 3,600° F (2,000 °C). How hot is that? Enough to turn a truck into a molten pool of iron!

Dr. Allen West of the CRG says of the findings: "Among more technical evidence, we discovered human bones that had been splattered by molten glass from the event. The glass is indistinguishable from that found at ground zero after atomic explosions. These people were killed by the heat and pressure of an atomic-like explosion but without the radiation" (emphasis added throughout).

Narrowing the possibilities

Dr. Silvia has produced 14 lines of evidence that support this site as being the location for the ancient city of Sodom. The paper is available for free download from Nature Scientific Reports (at nature.com/articles/s41598-021-97778-3).

Key finds of the scientific study done at Tall el-Hammam are documented in the research paper—along with graphs, charts, equations and analysis—showing why the site of Tall el-Hammam could very well be the destruction site of ancient Sodom. Some of the key finds include:

- Evidence for high-temperature burning of the city.
- Melted construction materials.
- Minerals and materials subjected to extremely high pressure and temperatures.
- Human bone fragments in the destruction layer.

- High salt content of the soil associated with the destruction and its implications for agriculture in the region.
- Destruction and burning of nearby Jericho at the same time.
- Potential causes of the city destruction.

The scientists looked at 10 different ways this city could have been destroyed, including warfare, accidental fires, earthquakes, volcanism and lightning. Some of the evidence fits some of the possibilities. But all of the evidence appears to fit only a single option—a cosmic airburst, namely a nearby comet or meteor explosion that obliterated the city and its surroundings.

The group concluded that the closest similar destruction events in modern history were the first atomic bomb test in 1945 in New Mexico as part of the World War II Manhattan Project (with an explosive yield of 21,000 tons of TNT) and the 1908 Tunguska cosmic airburst, which flattened 830 square miles of Siberian forest with a similar explosive force.

The blast that destroyed the city at Tall el-Hammam is thought to be a Tunguska-class comet or meteor airburst that exploded near the northern end of the Dead Sea, a few kilometers southwest of the site.

This event was so destructive that all across the lower Jordan Valley, 15 other cities and more than 100 smaller villages were simultaneously abandoned at this time and remained largely uninhabited for approximately 300 to 600 years, pointing to the occurrence of a rare and highly unusual catastrophic event.

Evidence for destruction not from this world

As previously noted, more than 20 scientists and researchers from many fields contributed to the major paper analyzing the destruction of the large and thriving city at the Tall el-Hammam site almost 4,000 years ago. What did they learn? Some of this is highly technical, but we'll summarize.

To quote the research paper, "An early crucial clue in this investigation was the discovery of highly vesicular potsherds in the debris matrix that appeared to have melted at high temperatures but with no clear evidence for a formation mechanism" (pp. 56-57).

Translation: They found broken clay pottery—common at such ancient sites—but this pottery had been subjected to such high temperatures that it had melted and formed bubbles, with no clear evidence of what could have produced such extremely high temperatures.

Continuing in the paper: "This first discovery led to some general observations about the uniqueness of destruction layer debris, e.g., its unusual, high-temperature characteristics and its consistent SW-to-NE orientation. The site excavators speculated that the cause of the destruction may have been a

cosmic airburst/impact, but they could not eliminate other potential mechanisms, including those related to warfare, volcanism, and tectonism."

Translation: The debris in the destruction layer was unusual not only for its having been subjected to extremely high temperatures, but also because it was thrown down in a specific direction—from the southwest to the northeast, indicating the destructive force originated in the air southwest of the city (near the northern end of the Dead Sea).

"We investigated 14 major lines of evidence to investigate this unusual event: (i) shocked quartz grains that formed at pressures of ~5–10 GPa; (ii) vesicular pottery that melted at > 1500°C; (iii) mudbricks and roofing clay that melted at > 1400°C; (iv) high salt concentrations in sediment, including melted KCl and NaCl incorporated into melted mudbricks; (v) diamond-like carbon (diamonoids) that formed at high pressure and temperature; (vi) soot, charcoal and ash, indicating high-temperature fires; (vii) Fe- [iron-] and Si- [silicon-] rich spherules, some of which melted at > 1590°C; (viii) platinum, melted at ~ 1768°C; (ix) iridium at ~ 2466°C; (x) zircon at > 1687°C; (xi) chromite at > 1590°C; (xii) titanomagnetite at > 1550°C; (xiii) quartz at 1713°C; and (xiv) low remanent magnetism, a counter-indicator of lightning strikes."

Translation: They examined 14 lines of evidence for the city's destruction, including quartz grains and carbon that had been subjected to such immense heat and pressure that their microscopic structure had been deformed and transformed into a completely different form; soot and ash that resulted from high-temperature fires; pottery and construction materials that had melted at temperatures of more than 2700°F; inexplicably high salt content in the soil; and tiny spheres of rare elements and minerals that had melted at temperatures of 2800 to 3100°F (well above the melting temperature of iron and steel).

"We considered and dismissed 8 of 10 potential processes . . . including volcanism, warfare, and tectonism, that can account for at least some but not all of the evidence. We conclude that the only plausible formation mechanism that can account for the entire range of evidence . . . is a crater-forming impact or a cosmic airburst, most likely somewhat larger than the 22-megaton airburst at Tunguska, Siberia in 1908."

Translation: They considered 10 different scenarios to account for the destruction evidence at the site and eliminated all but two. The only two possibilities left that could account for the evidence were a comet or meteor that impacted the ground or exploded in the air nearby.

"The data also suggest an airburst occurred a few kilometers SW of Tall el-Hammam causing, in rapid succession, a high-temperature thermal pulse from the fireball that melted exposed materials, including roofing clay, mudbricks, and pottery. This was followed by a high-temperature, hypervelocity blast wave that demolished and pulverized mudbrick walls across the city, leveling the city, and causing extensive human mortality."

Translation: The evidence indicates that a comet or meteor exploded in the air near the northern end of the Dead Sea southwest of the city, generating a flash of heat in the thousands of degrees Fahrenheit, melting mud bricks (the city's primary construction material), clay roofing material and pottery. A secondary high-temperature, high-speed pressure wave pulverized and leveled the city, killing everyone in it.

"In addition, anomalously high salt content in the debris matrix is consistent with an aerial detonation above high-salinity sediments near the Jordan River or above the hypersaline Dead Sea. This event, in turn, distributed salt across the region, severely limiting regional agricultural development for up to ~ 600 years."

Translation: Abnormally high salt content in the destruction layer and across the area for miles around led researchers to conclude that an aerial blast vaporized a large volume of water from the high-salt-content Dead Sea. That salt, with other minerals from the Dead Sea, later settled out over the land in such a heavy concentration that raising crops—and thus human habitation—was almost impossible for the next several centuries.