

Annotating the Bible: Past, Present, and Future

Sean Boisen

(sean@logos.com, @seanboisen)

Logos Bible Software

<http://seanboisen.com/talks/2014/iannotate/Bible>

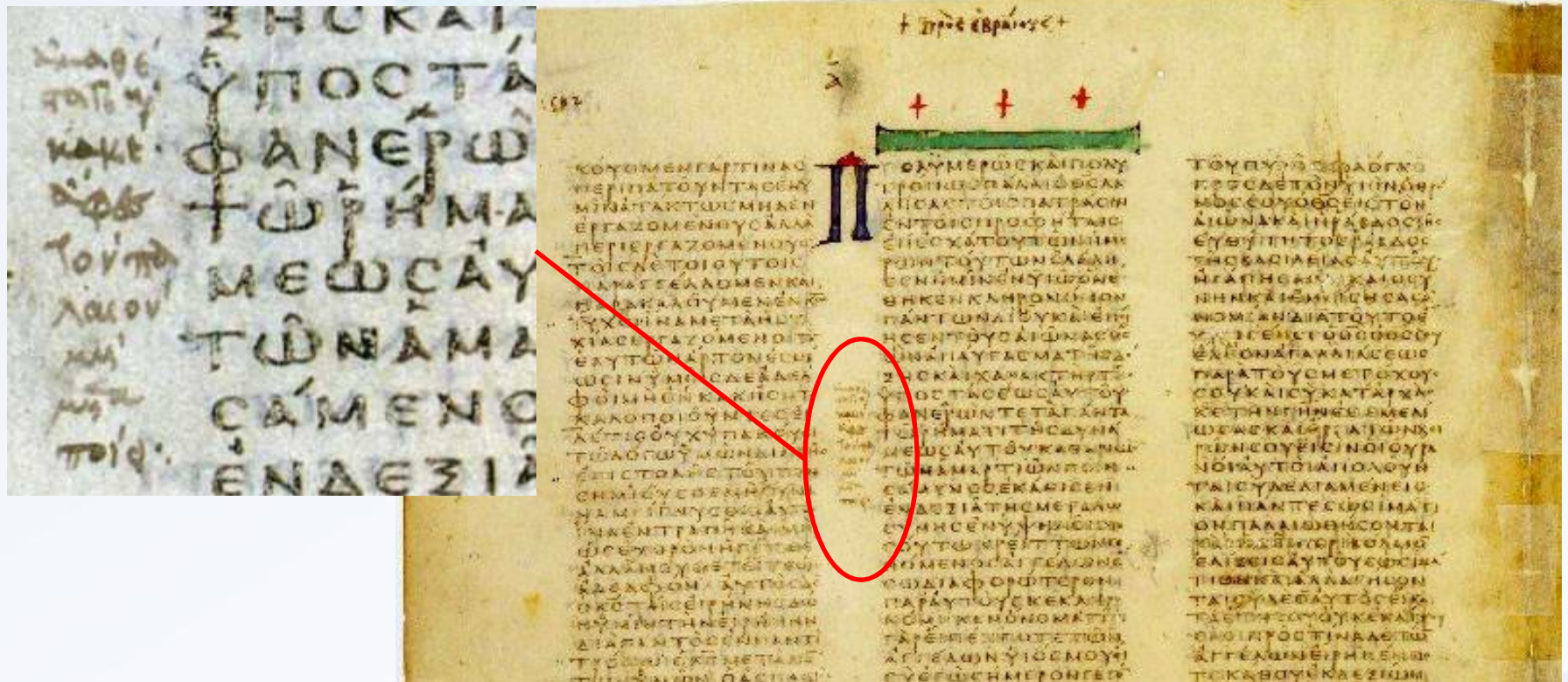
About Logos

- Digital library platform for biblical studies
 - 40k+ books, including texts in Greek, Hebrew, Aramaic, Latin, Ugaritic, ...
 - Windows and Mac clients; mobile; browser
- Key functionality
 - Reading, search
 - Automated aggregation and reporting
 - Hyperlinked information within our platform

Past: Commenting and Indexing

- Mishnah (Judaic commentary on the Torah): 2nd century CE
- Eusebius aligned passages among the four Gospels ~300 CE
- Standardized reference systems
 - Langton (1150-1228 CE): chapters
 - Ben Kalonymus (1447): Hebrew Bible versification
 - Estienne (1551): NT versification

Past: Annotating the Text



ἀμαθέστατε καὶ κακέ, ἄφες τὸν παλαιόν, μὴ μεταποίει
(Heb 1:3 marginalia from [Codex Vaticanus](#), early 3rd c. CE)

Linguistic Source Annotation

The New Revised Standard Version

Luke 13:21

20 And again he said, “To what should I compare the kingdom of God? 21 It is like yeast that a woman took and mixed in with^a three measures of flour until all of it was leavened.”

Surface	21 It is	like	yeast	that	a woman took	and mixed
MSS	→ ἐστὶν ₂	ὅμοια ₁	ζύμη, ₃	ἣν ₄	→ γυνή ₆ λαβοῦσα ₅	← ἔκρυσεν ₇
Lemma	εἶμι	ὅμοιος	ζύμη	ὅς	γυνή	λαμβάνω
Root	ΕΙΜΙ	ομοιος	ζυμοω	ος	γυνη	λαμβάνω
Morph	VPAI3S	JNSF	NDSF	RR-ASF	NNSF	VAAP-SNF
Sense	to be (quality) to be likened	to be likened like	leaven		woman to take (physically)	to put in ⇒ hide

- Morphology, dictionary and root forms, syntax analysis, lexical semantics, ...

Cross-lingual Alignment

NRSV	good	deed	might	be	•		voluntary	and	not	
NRSV NT RI	τὸ ₅ ἀγαθόν ₆	← ₅	→	ἦ ₈	ἀλλὰ ₉		κατὰ ₁₀ ἐκούσιον ₁₁	•	μὴ ₁	
LEB	good	deed	might	be	but ₆	<i>your₉ own₁₀</i>	according ₇ to ₈ ... free ₁₁ will. ₁₂		not ₁	
LEB NT RI	τὸ ₅ ἀγαθόν ₆	←	→	ἦ ₈	ἀλλὰ ₉	••	κατὰ ₁₀ ← ἐκούσιον ₁₁ ←		μὴ ₁	
ESV	goodness		might	be ₂	but ₅		of ₆ your ₇ own ₈ accord. ₉		not ₁	
ESV NT RI	τὸ ₅ ἀγαθόν ₆		→	ἦ ₈	ἀλλὰ ₉		κατὰ ₁₀ ← ← ἐκούσιον ₁₁		μὴ ₁	
NLT	help ₂	to ₁		← ₂	•		because <i>you</i> were willing,		not	<i>you₂</i>
NLT NT RI	τὸ ₅ ἀγαθόν ₆	← ₅		ἦ ₈	ἀλλὰ ₉		κατὰ ₁₀ ἐκούσιον ₁₁ • ← ←		μὴ ₁	•
NIV	favor ₂	<i>do</i>	would	seem ₂	but ₄	<i>would₅ be₆</i>	voluntary. ₇		not ₁	
NIV2011 NT RI	τὸ ₅ ἀγαθόν ₆	•	→	ἦ ₈	ἀλλὰ ₉	••	κατὰ ₁₀ ἐκούσιον ₁₁		μὴ ₁	
KJV 1900	benefit		should	be ₂	but ₈		willingly. ₉		not ₁	<i>it₄ were₅</i>
KJV NT RI	τὸ ₅ ἀγαθόν ₆		→	ἦ ₈	ἀλλὰ ₉		κατὰ ₁₀ ἐκούσιον ₁₁		μὴ ₁	••
LBLA	bondad			fuera ₂	sino ₆	<i>tu₈ propia₉</i>	por ₇ ... voluntad. ₁₀		no ₁	
LBLA NT IINV	τὸ ₅ ἀγαθόν ₆			ἦ ₈	ἀλλὰ ₉	••	κατὰ ₁₀ ἐκούσιον ₁₁		μὴ ₁	
RVR60	favor			fuese ₂	sino ₆		voluntario. ₇		no ₁	

Contextual Reference

Reported Speech

The New Revised Standard Version

Luke 13:21

²⁰ And again he said, “²¹ To what should I compare the kingdom of God? ²¹ It is like yeast that a woman took and mixed in

Surface 21 It is
MSS → ἐστὶν
Lemma εἰμι
Root εἰμι
Morph VPAI3S
Sense to be (q)

Bible Facts

- Jesus | ISBE
- Jesus | ISBE
- Jesus Christ | ISBE
- Jesus Christ, Arrest and Trial of | ISBE
- Arrest and Trial of Jesus | ISBE
- Trial of Jesus | ISBE
- David, Root of | ISBE
- Lamb of God | ISBE
- Man, Son of | ISBE
- Son of God | ISBE
- Son of Man | ISBE
- Trinity | ISBE

Reference Luke 13:20

Manuscript	εἶπεν
Lemma	εἶπον
Root	λεγω
Morph	VAAI3S
Greek Strong's	Strong's Greek #2036
Louw-Nida	Louw Nida 33.69
Sense	to say (express)
Person	Jesus

Add community note

Add a note to “Christian philosophy”

Add a clipping to “from Quest For Godliness”

Show Information

Identified referents for pronouns and descriptive phrases

Semantic Search

Search

Basic Bible Image **Clause** Morph Syntax

Search clauses in All Passages in The Greek New Testament: SBL Edition for

person:Jesus place:Jerusalem

▼ CLAUSE SEARCH 47 results (0.22 sec)

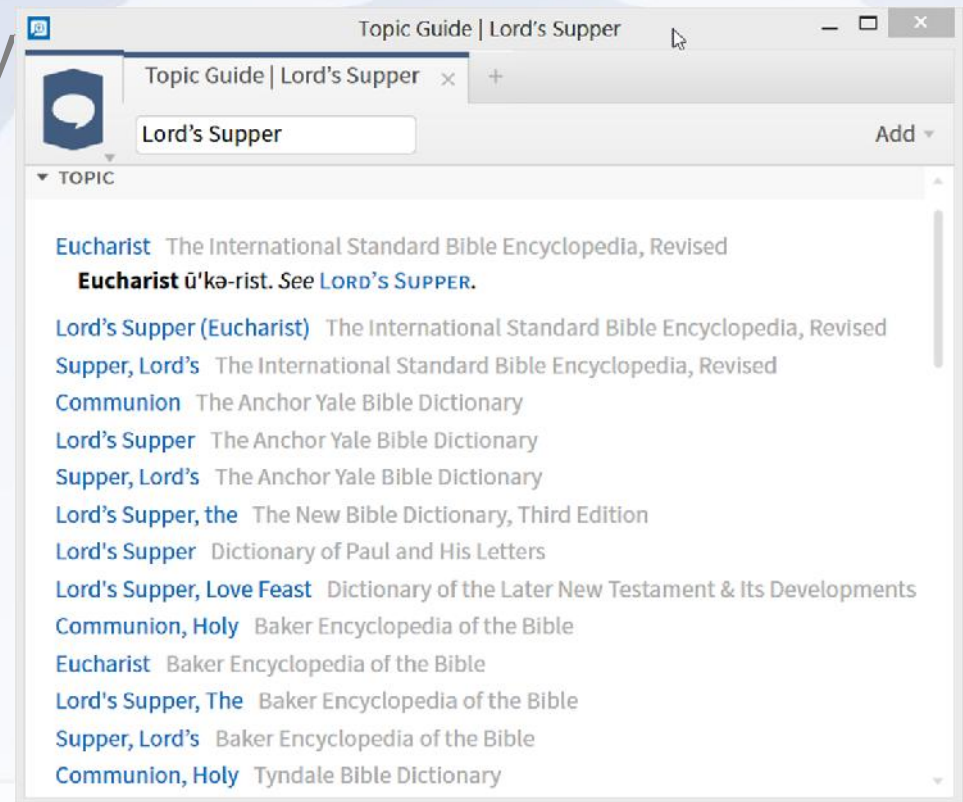
NRSV

Verses Analysis

	SBLGNT	The New Revised Standard Version
Matt 4: 5	Τότε παραλαμβάνει αὐτὸν ὁ διάβολος εἰς τὴν ἁγίαν πόλιν, καὶ ἔστησεν αὐτὸν ἐπὶ τὸ πτερύγιον τοῦ ἱεροῦ,	Then the devil took him to the holy city and placed him on the pinnacle of the temple,
25	καὶ ἠκολούθησαν αὐτῷ ὄχλοι πολλοὶ ἀπὸ τῆς Γαλιλαίας καὶ Δεκαπόλεως καὶ	And great crowds followed him from Galilee, the Decapolis, Jerusalem, Judea,

Topical Annotation

- Controlled vocabulary of 14k topics
- 60+ encyclopedias aligned by topic



Reference Data: People

Bible Facts | Noah (builder of ark)

Noah (builder of ark) Actual Size Fit

Noah (builder of ark) — a son of Lamech chosen to build the ark.

God makes a covenant with Noah [Ge 8:20-9:17](#)

God commands Noah to build the ark [Ge 6:11-22](#)

The flood subsides [Ge 8:1-19](#)

God floods the earth [Ge 7:1-24](#)

Noah becomes drunk in his tent [Ge 9:18-27](#)

Noah is born [Ge 5:28-29](#)

▼ ROLE

farmer, husbandman — one who farmed land or owned farm land, whether fields, orchards or vineyards.

▼ DICTIONARIES

ISBE
[Noah](#)
[Noah](#)

Family Tree: Noah

Thin ▼

Lamech

Noah

Shem Ham Japheth

```
graph TD; Lamech --> Noah; Noah --> Shem; Noah --> Ham; Noah --> Japheth;
```

Reference Data: Places

Bible Facts | Laodicea

Bible Facts | Laodicea x +

Laodicea Actual Size Fit 34° 7' 43" N 32° 9' 55" E

Laodicea — a city in southwestern Phrygia, Asia Minor, that was a focus of evangelism in the New Testament.

▼ **DICTIONARIES**

ISBE
[Laodicea](#)

ABD
[Laodicea \(Place\)](#)

NBD
[Laodicea](#)
[more »](#)

▼ **LEMMAS**

Λαοδίκεια *Laodikeia* Laodicea (6x)
[Col 2:1, 4:13, 15–16, Rev 1:11, 3:14](#)

▼ **REFERRED TO AS**

Laodicea (6x)
[Col 2:1, 4:13, 15–16, Rev 1:11, 3:14](#)

▼ **SEE ALSO**

Paul's First and Second Missionary Journeys



The map illustrates Paul's missionary journeys across Asia Minor and the surrounding regions. The first journey (red line) starts in Antioch, goes to Iconium, Lystra, and Derbe, then returns to Antioch. The second journey (blue line) starts in Antioch, goes to Tarsus, then to the cities of the second journey, and returns to Antioch. The map includes labels for various regions like Macedonia, Thrace, Bithynia and Pontus, Asia, Cappadocia, Commagene, Syria, Judea, Nabatea, Lycia, Pamphylia, Caria, and Achaea. It also shows the Aegean Sea and the Mediterranean Sea. A scale bar indicates 200 miles and 400 kilometers. A legend identifies the lines for the first and second missionary journeys, both outward and inward. An inset map shows the location of the main map area within the broader context of the Eastern Mediterranean.

200 Mi
400 Km

PAUL'S FIRST AND SECOND MISSIONARY JOURNEYS

City

1st missionary journey: outward

1st missionary journey: inward

2nd missionary journey: outward

2nd missionary journey: inward

Reference Data: Artifacts



Bible Facts | Noah's Ark

Noah's Ark

Actual Size | Fit

Noah's Ark — the ark Noah built as directed by the Lord for the great flood.

God commands Noah to build the ark
[Ge 6:11–22](#)

The flood subsides [Ge 8:1–19](#)

God floods the earth [Ge 7:1–24](#)

▼ DICTIONARIES

ISBE
[Ark of Noah](#)

ABD
[Ark, Noah's](#)
[Noah and the Ark](#)

NBD
[Ark](#)
[more »](#)

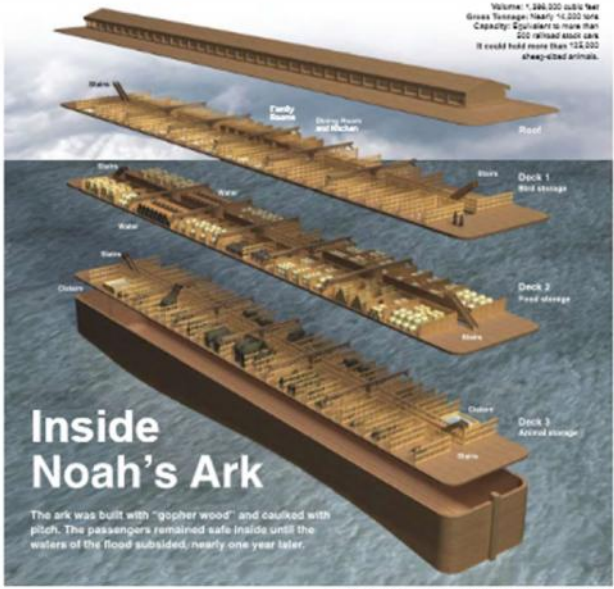
▼ LEMMAS

תֵּבָה *tē-bā(h)* ark; chest; casket (26x)
[Gen 6:14–16, 18–19, 7:1, 7, 9, 13 ...](#)

κιβωτός *kibōtos* ark (4x)

Inside Noah's Ark

Karbel Multimedia
Faithlife Study Bible Infographics



Volume: 1,380,000 cubic feet
Gross Tonnage: Nearly 16,000 tons
Capacity: Equivalent to more than 200 railroad motor cars
It could hold more than 150,000 sheep-sized animals.

The ark was built with "gopher wood" and caulked with pitch. The passengers remained safe inside until the waters of the flood subsided, nearly one year later.

GRAPHIC BY KARBEL MULTIMEDIA, COPYRIGHT 2011 LOGOS BIBLE SOFTWARE



Timeline Events

The screenshot displays the Logos Bible Software interface. On the left, a window titled 'HBDRU' shows the 'Vulgate' text. A tooltip for the event 'AD 347 – 420 The Vulgate by St. Jerome is translated' is visible over the text. On the right, the 'Timeline' window is open, showing a vertical timeline of historical events. The event 'AD 347 – 420 The Vulgate by St. Jerome is translated' is highlighted with a red oval. Other events visible on the timeline include 'ca 324 – 1453 Duration of the Byzantine Empire', '400s AD Code', '4th c. AD Codex Sinaiticus is written', 'Constantine moves capital of Roman Empire to Constantinople', 'ca AD 330 – 395 Life of Gregory of Nyssa', and 'ca AD 397 Third Synod of Carthage'.

AD 347 – 420
The Vulgate by St. Jerome is translated

Latin version of the Bible. In the late fourth century, Pope Damasus commissioned Jerome to bring order to the existing Latin versions. The resulting translation was called the Vulgate ("common text"). In 1546, the Council of Trent decreed that the Latin Vulgate was to be regarded as the authoritative version of scripture, establishing it as the standard Bible of the Roman Catholic church.

Timeline

AD 343 - Filter 11,335 Q All Biblical

350 400

« ca 324 – 1453 Duration of the Byzantine Empire

400s AD Code

converts to Christianity

tion of Christians under Diocletian ca AD 410

AD 347 – 420 The Vulgate by St. Jerome is translated

« ca AD 301 – ca 500 Life of Dionysius the Pseudo-Areopagite

4th c. AD Codex Sinaiticus is written

Constantine moves capital of Roman Empire to Constantinople

ca AD 330 – 395 Life of Gregory of Nyssa AD 410 D

church built at the site of Jesus' nativity ca AD 397 Third Synod of Carthage

The Future

- Managing volume
- Detailed categorization of commentary function
 - Text critical, linguistic, literary, cultural, explanation, exposition, application, ...



The Future (continued)

- Crowd-sourced reference annotation of text, images
- Automated entity extraction and normalization
- Structuring knowledge into semantic propositions
- Capturing and comparing perspectives

Questions?

- sean@logos.com
- Twitter: @seanboisen, @Logos
- <http://logos.com>

Credits:

- [Image of Codex Vaticanus](#)