

What star is this?
*An astronomer's thoughts on
the "Star of Bethlehem"*

Dr. George Spagna
Randolph-Macon College
For River Road Church

But first, something really important:
What's in your wallet?

- 109,000 on organ transplant wait list
 - Only about 40,000 transplants/year
 - 6,000/year will die waiting
 - **Please sign up to be an organ donor!**

What do we really know about
the “Star of Bethlehem?”

Actually, not a lot!

- Gospel of Matthew
- Popular “Christmas” carol
- Possible connection to histories of
Flavius Josephus?
- Astronomical records from China &
Korea

What “explanations” can be eliminated?

- Meteor shower
- Comet
- Solar or lunar eclipse
- Supernova?
- Nova ?



What can we learn from “history?”

- Who were the Magi? Where did they come from?
- What events surrounded the death of Herod? Was it 4 BC or 1 BC?
- “Holy Innocents” – Magi arrived 2 years after Jesus’ birth.

The "4 BC Scenario"

- traditional date of Herod's death

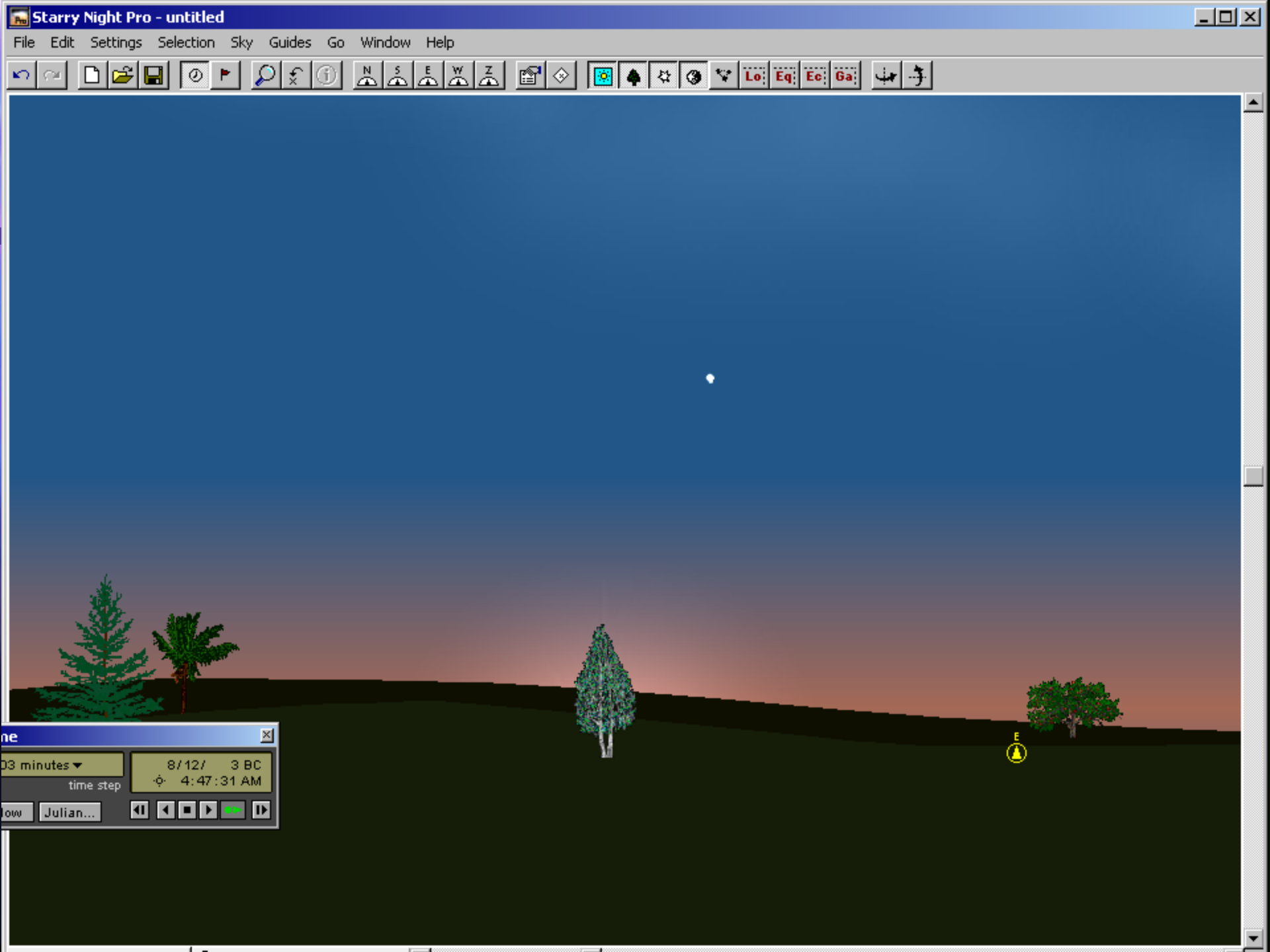
- Series of planetary conjunctions (Jupiter and Venus) in 7-6 BC would get attention, but not decisively.
- Hebrew name for Jupiter: Sedeq, which means *Righteousness*.

The "1 BC Scenario" (See Ernest Martin's *"The Star that Astonished the World"*)

- Jupiter conjunction with Venus in August
- Jupiter conjunction with Regulus in September - but, apparent only before sunrise! Astrologers would notice, others would not.

Dare I suggest 3 BC?

- Jupiter, Venus, and Sun together in Leo could portend a “royal birth”
- 12 August, 3 BC
- Conjunction with Regulus 11 Sept (Rosh Hashanah!)
- then 2 Feb, then 30 April!
- Then Venus (again!) 17 June, 2 BC



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How about a combination of events?
See Mark Kidger's "*The Star of Bethlehem*"

- Conjunctions in 7 - 6 BC (get their attention!)
- Chinese / Korean reports of "guest star" in Pisces - 5 or 4 BC
 - "In the East" when first observed
- Over Bethlehem (seen from Jerusalem) 2 months later.
- This has a problem – why associate Pisces with Judea?

Michael Molnar's "*The Star of Bethlehem* – *The Legacy of the Magi*"

- Was *Aries* the sign of Judea? (So says Claudius Ptolemy. Appears on Roman coins 13-14 AD from province of Syria)
- Firmicus Maternus (astrologer to Constantine, 334 AD) attributes 6 BCE double eclipse of Jupiter in Aries as marking birth of a divine king.



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Saturn ->

Aries

- Moon

• Jupiter

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Now Julian... ⏪ ⏩

Aries
 RA: 1h 21.688m
 Dec: 6° 40.958'

Who's right? What was the "Star of Bethlehem?"

- Impossible to say! But ...
 - If Herod died in 4 BC, then Constantine's astrologer probably has the right event.
- If Herod died in 1 BC, I'd vote for the 3 BC conjunction.

What does it all mean?

- *"Faith and Science"?*
- *"Faith vs. Science" ?*
- Ian Barbour: *Conflict, Independence, Dialogue, Integration*

What's really important here?

- That depends on who's asking
 - For Christians, it's not the star!