

# A Brief History of Dendro

- Early Observers
  - Aristotle 350 BC
  - T. Jefferson 1760s
  - Duhamel & Buffon 1937
    - Frost Ring of 1709
    - Also noted by : Linnaeus (1751), Burgsdorf (1783), Candolle (1839)



# Alexander Twining

- 1827 Twining in Conn
  - Deduces annual rings
  - Notices species differences
  - Ring width correlated to climate
  - Trees “crossdate”
- Speculates on uses



# Jacob Kuchler



- Post Oak trees in Texas
- Specific “experiment”
  - Annual rings
  - Ring-width variability
  - Precip as limiting factor
  - Cross sections near base
  - Prepared surfaces
  - Cross dating w/relative widths
  - Why Not Founder?

# A. E. Douglass: Founder of Dendrochronology



- Flagstaff area
- Sunspot interests
- Flagstaff Signature  
1891, 1894, 1896,  
1899, 1902, 1904
- Corroboration
- Prescott Series

# Using Archaeological Wood

- 1914 Clark Wissler
- 7 samples— 139-year floating chronology
- 1920 Neil Judd – Pueblo Bonito samples
- A RELATIVE chronology is built
- The Sequoias



# Douglass Treks

- Lab in Flagstaff
- Lab in Tucson
- Collecting Live Trees
- Archaeological Wood/Charcoal
- 25+ Years/1000s of Km



# The Beam Expeditions

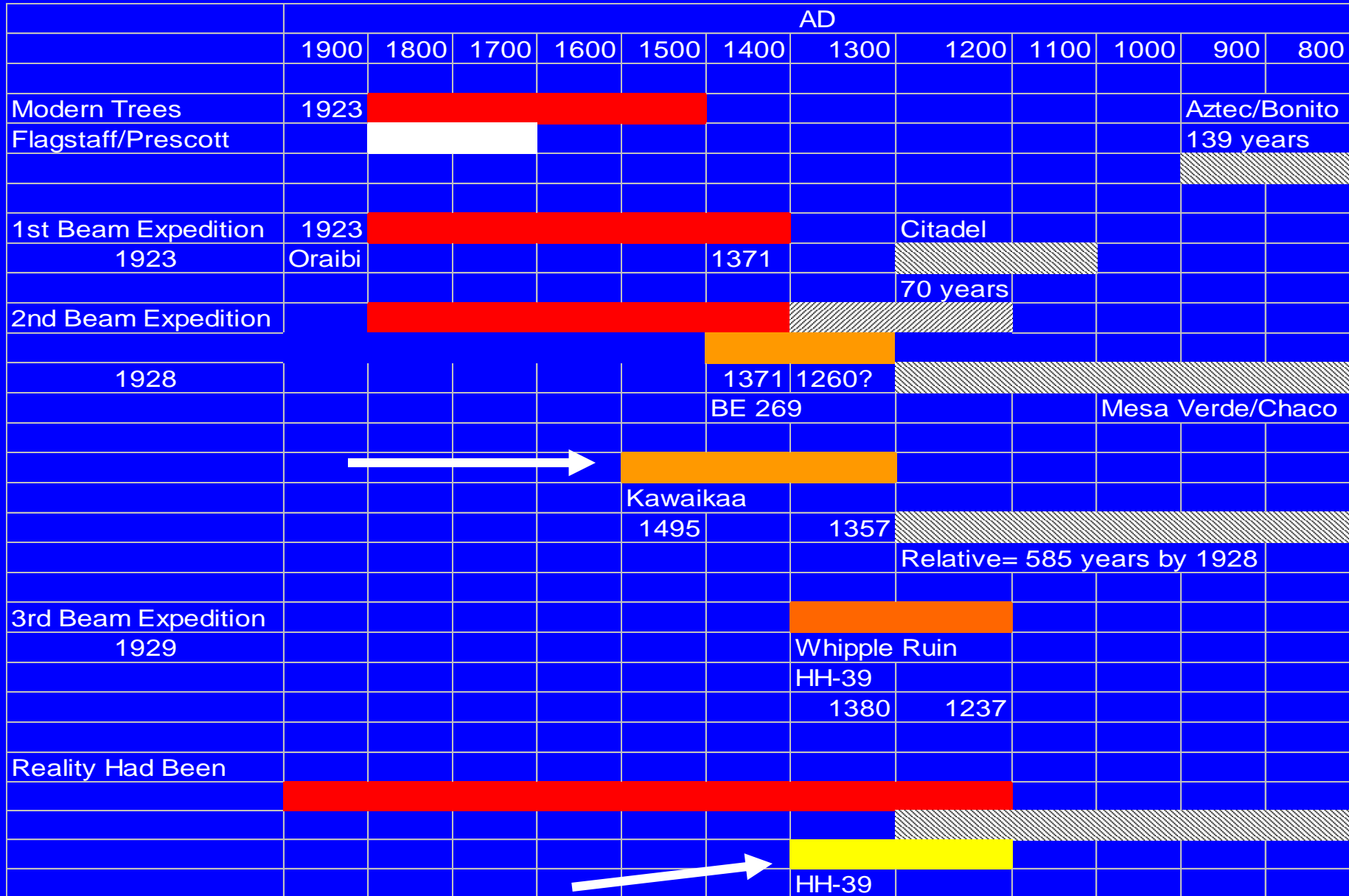


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Photograph. Smithsonian Inst. Nat. Anthropological Archives.

- Many more than 3, but 3 were NGS funded
- 1923– Hopi Villages, Mesa Verde, Rio Grande– Regional Signal (but not Rio Grande)
- 1928- Old Oraibi and NE Arizona (Kwaikaa first dated ruin)
- 1929– Combined efforts of Hargrave, Colton using ceramics to target specific sites
- Show Low Ruin and HH-39

# Bridging the Gap





# Emil Walter Haury

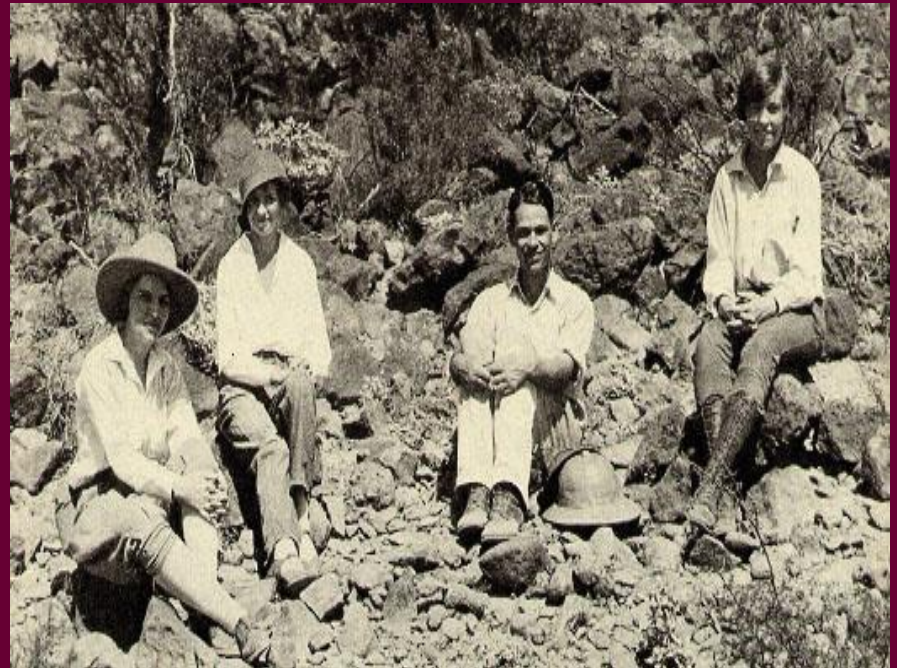
1930—1<sup>st</sup> Dendro class  
Replicated Douglass' master

1934-1935—Canyon  
Creek Ruin  
Dendroarchaeological  
theory



# Testing Results and Teaching

- Haury's crossdating
- The 1930 Intro Class
- LTRR founded 1937
- Rio Grande, Gila Pueblo, MNA Labs  
(all fold by 1960)



# Bryant Bannister

Chaco Canyon dates

Dendroarchaeological theory



William J. Robinson

1967—Behavioral/Cultural  
information

Organization &  
curation of collections

Historical

Dendroarchaeology



Jeffrey S. Dean

1969—Tsegi Social  
Organization

1970s—Black Mesa Navajo

Chronometric theory

Models of wood use practices

Dendroclimatology

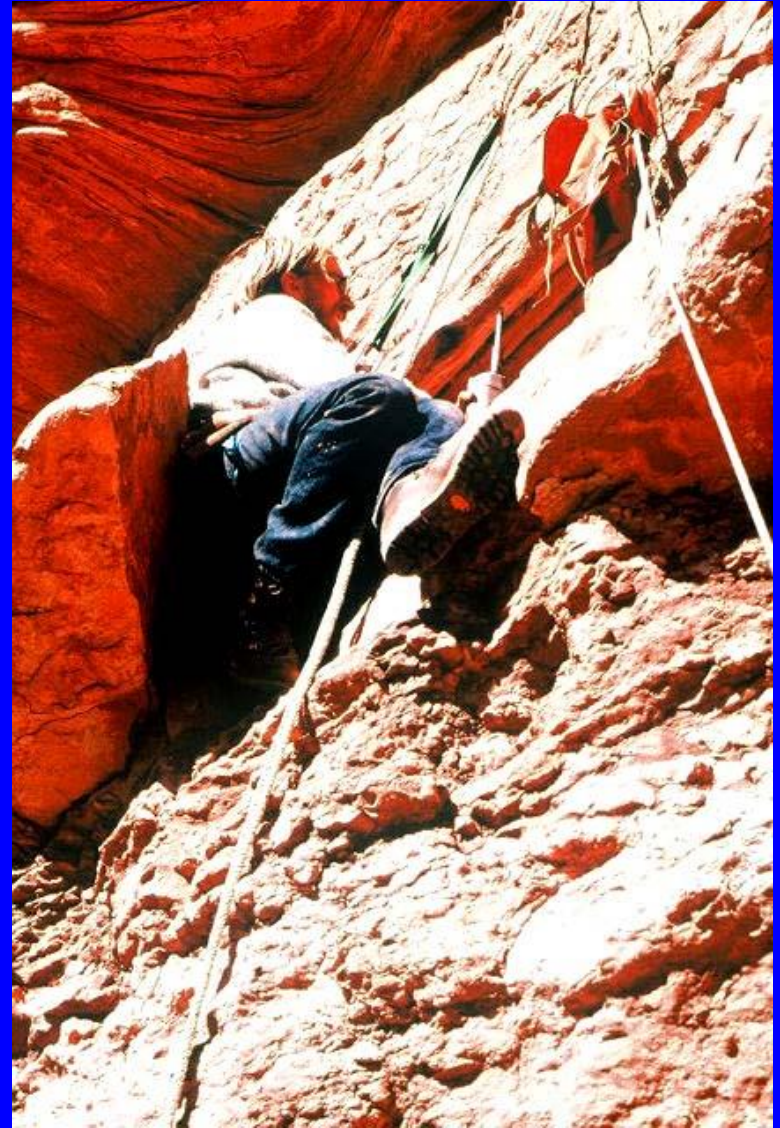
Dean and Robinson 1977

Rose, Dean, and Robinson 1982



Richard V.N. Ahlstrom

1985—The Interpretation of  
Archaeological Tree-ring Dates



# Dendro History Lessons

- Publication and Promotion of Ideas
- Chronology Building from the present-past
- A Collaborative Effort among Fields
- Testing Results, Generating New Hypotheses
- Teaching Methods and Science