Central Greenland Temperature, 4,000BP to Present (Modified from Alley, 2004)

- **Subboreal Climate, warm, dry**
- **Subatlantic Climate, cool, wet**

**Minoan Warm Period**
- Yellow River freezes, frost in July in China, Shang Dynasty collapses.
- Indian Harappa civilization collapses and the "14th Egyptian dynasty" collapses in the Egyptian "Dark Age".
- C14 Hallstatt disaster, collapse of the Egyptian Kingdom after Pharaoh Takeloth, Alps tree line moves lower, European temperatures drop 1-2°C.

**Roman Warm Period**
- Roman and the Chinese Han Dynasty flourished at this time.
- Great migration of Goths, Huns and Vandals begins. Roman famine and losses to the Goths, the Empire breaks into numerous parts, terrible crime.
- First Viking colony established in Greenland.
- Ch'in unifies China.
- The Han dynasty collapses, China divides into three kingdoms.
- Great migration of Goths, Huns and Vandals begins. Roman famine and losses to the Goths, the Empire breaks into numerous parts, terrible crime.

**Last Western Roman emperor deposed by the Germans**
- Starvation, extreme cold, over a third of the European population dies in 784.

**Medieval Warm Period**
- Vikings conquer Ireland, Normandy, Sicily & Russia.
- Vikings settle in Newfoundland.
- Rabaul (Papua-New Guinea) erupts, "the sun lacked brightness".
- The great famine and Black Death.

**Modern Period**
- Witch hunts reach maximum in 1600, 50,000 witches burned.
- Glaciers grow and destroy villages.
- Maunder Minimum.
- Last report from Greenland.

**European Dark Age**
- Mauser Minimum.
- Last report from Greenland.

**Andy May**