



### Trees West

**O**UT OF the turmoil of debate over the projected Great Plains tree belt there seem to be emerging two rather general agreements, and two points on which experts still disagree. With relatively few exceptions, climatologists and plant scientists agree that a major modification of the climate east of the tree zone is not to be expected. But, they also agree, trees are good things in themselves, and if liberal plantings can be induced to grow on the Plains they will be well worth setting out, just to make living there "more human."

There is still disagreement on what benefits may be gained through local amelioration of climate over the fields in the immediate lee of the long strips of timber. That can be settled partly by studying "microclimatic" effects of other shelter belts already in existence farther east. A complete answer, however, must await the growing of the shelter belts on the Plains themselves, for even the best analogy is not an identity.

Further disagreement arises also over the question whether trees can be grown on the Plains at all. This again can be

settled conclusively only by actual experiment, such as the U. S. Forest Service is already undertaking. But for whatever value there may be in analogy, it may perhaps be worth while to look at the numerous tree species that now thrive on the originally scantily-timbered uplands of the true prairies now covered by the Corn Belt.

Here, extending from central Illinois across Iowa to eastern Nebraska and Kansas, farmers and townfolk alike have made life more agreeable for themselves by cultivating not only native prairie lowland trees like elm, maple, oak and honey locust, but also many species from the much moister, "softer" climates of the Eastern United States and from Europe. Such Eastern trees as beech, chestnut and tulip-poplar get along very well in central Iowa. And all over the Corn Belt there are abundant plantings of moist-climate trees from the Old World, like European larch, English elm, Norway spruce, and

the ginkgo or maidenhair tree, from China and Japan. As a perhaps extreme case there might be cited bald cypress and one or two species of magnolia that have been grown successfully as far west as the eastern border of Kansas.

The point is that all these trees are getting along on the prairie uplands, with an annual rainfall from a fourth to a third less than that of their native regions, with summer droughts much more frequent and severe, and with winter winds and temperatures such as would be considered quite intolerable to them except that experience has proved the contrary.

It is not outside the scope of a moderate optimism to expect that if these "soft" trees have survived so far outside their native environments, then perhaps such tough prairie-edge species as burr oak, hackberry and green ash may manage to take hold and thrive after a rather shorter trek into the West.

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### ARCHAEOLOGY

## Archaeologists Dig Where Jacob Dreamed of Angels

**T**HE earth at Bethel, where Jacob dreamed of angels and where King Jeroboam built a royal temple, is being probed for traces of historic events.

Nearly fifty baskets of potsherds—fragments of pitchers, wine jars, saucers, bowls and other dishes have been removed each day, on the average, in excavations this season.

Evidence of a great fire which effectively ended one stage of Bethel's career is one of the first discoveries reported to the American Schools of Oriental Research by Prof. W. F. Albright, director of the digging.

"Excavation has not progressed far enough," stated Prof. Albright, "to enable us to date this conflagration more precisely than between the seventh and sixth centuries B.C."

Traces of an earlier fire which destroyed the town some eleven to twelve centuries before Christ have also been discovered.

Among relics from various periods are coins of different rulers and nations, down to 69 A.D., the year in which Vespasian captured Bethel. No coins of later date have been found, though

walls, cellars, and grain pits of the Byzantine period have appeared.

Since an Arab village occupies part of the site of ancient Bethel, extensive exploration is hardly feasible, explained Prof. Albright. A fig orchard just north of the modern village has been rented, and it is in three sections of this orchard that the discoveries are being made.

Excavation of this Biblical site is a memorial to the late Prof. M. G. Kyle of Xenia Theological Seminary, who unearthed the ten-layered city of Kirjath Sepher shortly before his death.

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Raisin packers find that they can prevent the fruit from sticking together if they spray it with an oil made from the seeds of seeded raisins.

A species of orchid new to the Chicago region has been found near Pine, Indiana, and is pronounced one of the orchids known as "ladies' tresses."

By dusting grapevines with sulfur, agriculturists find that they can control powdery mildew, the most serious fungus disease of California vineyards.

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