Idle hands and the energy crisis

And on the seventh day God rested —setting an example that has been followed by workers until recent times. In the near future, however, people may be resting on the seventh, sixth, fifth and even fourth days. Much of Great Britain is already on a three-day work schedule and many industries in the United States are considering the possibility of conserving energy by operating only four days a week. Such a changeover may work well for the energy crisis but psychologists are asking how it will work for the workers.

Some preliminary answers have come from a pharmaceutical company in St. Louis. For more than a year the plant has been working 9½-hour days, four days a week. Robert Costigan of St. Marys, Alaska, and Walter R. Nord of Washington University have completed a one-year study of worker reactions.

More than 100 workers filled out questionnaires after 6 weeks, 13 weeks and one year of the new system. Overall attitudes toward the four-day week were favorable. Only 19 percent thought the five-day week was better. The workers with high-paced jobs (jobs controlled by an assembly line or machinery, such as jobs in shipping and receiving, processing and packaging) were most favorable toward the four-day week. Those with low-paced jobs (office, janitorial, maintenance and cafeteria personnel) were less happy with the shorter weeks and longer days.

The researchers also found out that people who planned their weekends were more favorable toward the short week than were those who made no plans. And those who made task-oriented plans (shopping, doctor's appointments, and moonlighting) rather than recreational plans were more in favor of the long weekends.

Among the favorable effects reported by the workers were: more time to spend with family and friends, more rest and relaxation and more things accomplished around the house. They also reported favorable changes at work: more work done, better morale and a more relaxed atmosphere at work. Company records showed that absenteeism decreased by 10 percent after one year on the short week.

Workers who did not like the four-day week reported unfavorable effects. Some complained they were more tired after work and had less time to spend with family and friends. At work, they reported getting less done, greater fatigue and lower morale. Workers also reported getting less sleep. On the four-day week they averaged 6.72 hours of sleep per night as compared to 7.05 hours of sleep per night while on the five-day system. This and the reported ill effects on home life tended to become more negative the longer these people remained on the four-day week. "Perhaps," say the researchers, "when the novelty of the change subsided, some individuals, particularly the roughly 20 percent who had not made any plans, found the longer block of leisure time less attractive." □

Progress—It ain't as bad as it seems

Modern people may not be as bad off as they think they are. At least, that is what scientists studying primitive tribes in South America report. They have found chromosome damage and mercury levels in some Indians to exceed those found in urban subjects. Chromosome damage and high mercury levels have been thought to be the price we paid for becoming civilized.

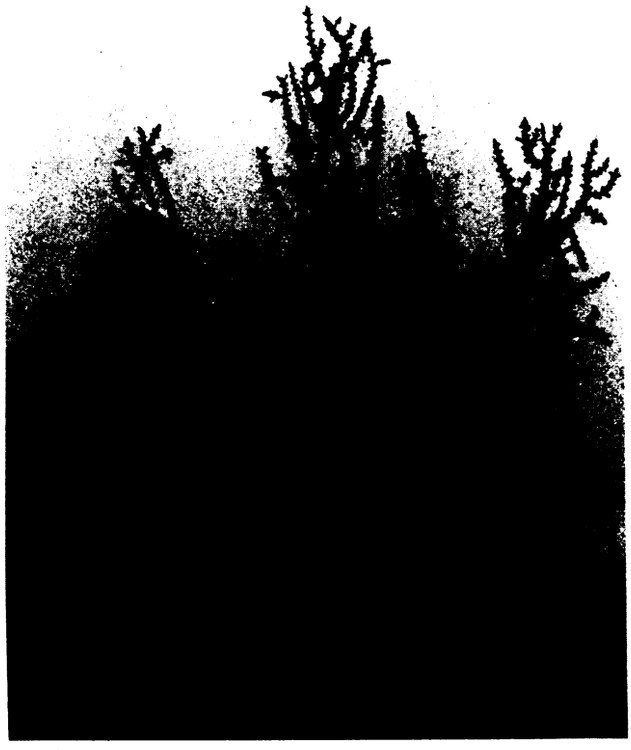
The findings resulted from an eight-year study conducted by a team of scientists from Brazil, Venezuela and the United States and headed by James V. Neel of the University of Michigan's School of Medicine. They have been attempting to discover the biological adaptations made by people as they progressed from hunter-gatherers to urban workers. The research group responsible for the mercury and other trace findings was headed by Lawrence H. Hecker, assistant professor at the University of Michigan's School of Public Health. The Xavante of the Brazilian Mato Grosso were subjects for a pilot study and the Yanomama of Venezuela served as subjects for the main investigation. Members of the expedition served as controls.

"Many of the scientific team's findings," says Neel, "underline the biological differences between primitive and civilized people. For instance, the studies show low baselines for lead and cadmium, dental caries, and hypertension for the Indians and much higher levels for modern city dwellers. Other findings, however, show unexpectedly high baseline values in chromosomal breakage and serum mercury in certain villages for this isolated [Yanomama] tribe. . . . These data imply two possibilities—modern man is not as badly off as he sometimes supposes, and genetic and biological damage has been with him a long time, probably through all stages of his development."

Subsequent studies indicate that something caused the severe chromosomal damage to members of the Yanomama tribe in 1969 and the scientists hypothesize that a natural agent such as a virus was responsible. However, the high mercury level is baffling.

"Mercury has been present in low levels in our environment for years with no apparent ill effect," Hecker said. "At high levels in some areas, mercury is known to have ill effects on man. Some of the Yanomama villages have much higher levels than people in cities in the United States, but it's having no apparent adverse effects on them. . . . We just don't know why the mercury level is so high in some villages," Hecker added, "and the puzzle is just killing us." □

The old tree of the sea



For nearly 600 years, small marine organisms have died on a particular basalt boulder on the floor of the Ironbottom Sound in Guadalcanal and formed this tree-like coral structure—the largest colony of non-reef-building coral ever seen by man. Unlike a tree, the coral is very rigid, brittle and consists chiefly of calcium carbonate. Jon Weber of Pennsylvania State University took the picture.