Geofact or Artifact?

Canicular Drought in Northern Yucatan

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1. The Canicula

At the height of the rainy season in Northern Yucatan, the rains suddenly cease. Over a period of several days, the heavy seasonal showers dwindle to nought and for days cloudless skies prevail. Then, as mysteriously, after a relatively rainless week, the rains return with maximum intensity. In some years this dry interlude, called *canicula* (or *veranillo* in other parts of Mexico), lasts only a week; in other years, more than two. But coming as it does at the very peak of the maize growing season, its onset is always significant, its effects often drastic. The canicula is an annual climatic phenomenon whose duration and impact are variable and thus unpredictable. Due to soil and plant characteristics within the *milpa* system[1], a few days more or less of mid-season drought can determine the success or failure of an entire crop of maize.

In the northern lowlands, the wet season begins in late May or early June with showers increasing in frequency through the first half of July and reaching a maximum daily precipitation during the third week of that month. Then during the fourth week of July, within a period of two or three days, the showers cease almost completely and the canicula begins. Caused by a southward retreat of the doldrum belt (Richards 1952: 139; Vivo Escoto 1964: 191), the canicula is a tense period of high temperatures, high relative humidity, and little rain.

Usually, the rains resume after seven or ten days, with precipitation increasing within a few days to its pre-canicular intensity. Returning normally between August 5th and 10th, the rains continue at or near maximum intensity for an additional week or two and then gradually diminish until they give way to the dry season in October or November.

The term *canicula* is the Latin astronomical name for the brightest star in the sky: Sirius, the Dog Star. Literally, it is the diminuitive of *canis*, 'a dog.' Like the English "dog days," the expression *dies caniculares* ('Dog Star days') designates the period of hot, sultry weather between mid-July and September. This designation derives from the observation that Sirius rises and sets with the sun during this time (cf. Menzel 1964). In addition to its astronomical and meteorological uses, "Cassell's New Latin Dictionary" (Simpson 1959: 88) lists a second, revealing connotation for *canicula*: "the worst throw of the dice." In this sense, *canicula* clearly refers to bad luck. Taken together, these connotations suggest a further metaphoric use of the term for "times of misfortune," especially during the oppressive heat of summer.

In the northern hemisphere, Sirius is visible from October to May. Thus, its passage "brilliantly" marks the onset and duration of the dry season in Northern Yucatan in addition to the dog days of summer. In all likelihood, however, the pre-Conquest Maya did not use the summer coincidence of Sirius and the sun to mark the summer drought. Hester (1954: 25) notes two Maya names for the canicular period. *U kin pek* means literally 'its – season – dog' or 'season of dog days.' The concept is almost certainly borrowed from Latin. The second name, however, *U kin ik*, is probably an original usage. It translates literally as 'its – season – wind or breath,' which Hester *(ibid.)* renders as "the time of torment or the time when it is difficult to breathe." One may suppose that the Maya borrowed the concept of "dog days" from the Spanish *(canicula)* as it closely matches their own association of misfortune with the sultry heat of mid-summer.

The canicula has received little attention from those studying Mesoamerican agriculture. Hester (1954) is among the few to give it sustained discussion. Due to its unpredictable and localized nature, it is a difficult phenomenon to study. Although the canicula is an annual occurrence, its advent, duration, and intensity often

[1] The *milpa* system is based on cutting, clearing by fire, and planting a new field every few years. The term *milpa* refers specifically to a plot of maize under this kind of shifting cultivation.