Production of artisanal mezcal, tequila’s sassy little sister

It seems as though humans have had a love-hate relationship with fermented (alcoholic) beverages for a very long time. Direct evidence of alcoholic drinks go back at least 9000 years, with indirect evidence suggesting they were around in the Upper Paleolithic some 12,000 years ago. The products of fermentation have been discovered independently in many different cultures throughout much of the world. The fermentation process is largely facilitated by microorganisms, mostly yeasts and bacteria. In very simple terms, fermentation converts sugars to other products, such as acids and alcohols, and in the process liberates energy from the sugar molecules that is used for normal cellular processes such as growth and reproduction. Fermentation is an abundantly common process in nature and important in the natural recycling or organic matter, so there is little wonder that humans encountered the process (and the products) early in our history. And because alcohol consumption results in such interesting (often pleasant) effects on human behavior it seems quite clear why it has been so readily embraced as a normal part of our culture.

Oaxaca, Mexico, is the center of the world’s production of mezcal. Mezcal, like tequila, is produced from agaves. But the smoky-flavored mezcal has not enjoyed the popularity of its tamer sibling, at least, not until recently. I’ve asked a few of my friends and neighbors if they know what mezcal is; most respond that it is some sort of illegal narcotic (see discussion of this in the accompanying glossary). But in recent years appreciation for mezcal has increased substantially; ultimately (and perhaps already) this may result in problems of supply and sustainability.

While driving through the small towns and countryside in Oaxaca it is common to see agave plantations and distilleries, some of which are modern and substantial (Fig. 1), others much more modest in scope and more traditional in approach. During CSSA’s 2010 botanical tour of Oaxaca we had

1. A rather upscale mezcal operation near Matatlán, Oaxaca, Mexico, the self-proclaimed “World Capital of Mezcal”.