**Refining at the *Ōkajiba* Forge**

The *ōkajiba* forge was essential to *tatara* ironmaking. By refining low-grade iron, ironworkers were able to improve the quality of the metal and create ingots of iron that blacksmiths around the country could forge into tools and other everyday objects.

The first step in producing iron ingots was to melt down the pig iron, which was stiff and brittle. This was done in a small furnace fed by hand-operated bellows. The melting process reduced the carbon content of the iron from approximately 3 percent down to roughly 1 percent. This partially decarbonized pig iron was then melted for a second time, further reducing the carbon content to around 0.1 percent. Finally, the newly malleable iron was hammered on an anvil to remove any other impurities.