

Preservation of Tatara Ironmaking Technology and Culture in Shimane Prefecture

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Shimane Prefecture is the birthplace of the world-renowned “Tatara Ironmaking,” which laid the foundation for Japan’s materials industry, producing more than half of the nation’s iron in the Meiji era. In 1976, with the cooperation of Hitachi Metals, Ltd. (now Proterial, Ltd.), The Society for Preservation of Japanese Art Swords revived Tatara ironmaking. Since then, Proterial employees have maintained its operation and techniques.

Even today, Tatara ironmaking continues to produce Tamahagane, the raw material for Japanese swords, supplying traditional Japanese swordsmith nationwide—a symbol of the region’s deeply rooted traditional technology and manufacturing culture.

Centered around Proterial, Ltd. Yasugi Works, the regional steel industry that has inherited this 1,400-year history of Tatara ironmaking pursues uncompromising quality and advanced technology. Today, it has expanded into fields such as automobiles, electronics, aerospace, energy, and even space exploration.

In these sectors, high-performance materials—created through the synergy of proprietary ultra-clean steel, metal microstructure control, advanced plastic forming, heat treatment, machining, and evaluation technologies—are highly regarded in global markets, producing numerous world-leading products.

In recent years, the growing aerospace and energy markets have brought new opportunities for growth, leveraging Shimane Prefecture’s strong manufacturing base. Against this backdrop, the “TATARA PROJECT,” promoted through collaboration among Shimane University, Shimane Prefecture, and local companies, aims to strengthen the foundation of regional enterprises and foster highly skilled human resources.

This lecture will explore the inheritance and innovation of manufacturing culture rooted in Tatara ironmaking, as well as prospects for a new regional revitalization model unique to Shimane Prefecture.

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