GUINNESS WORLD RECORD

Zhunan Snake Kiln kiln master Lin Jui-Hwa continues to challenge the limits of human knowledge of ceramics, pioneering the new field of Future Ceramics.

In 2016, he took on the challenge to set the Guiness World Record for the highest temperature in a wood-fired kiln and applied for an adjudicator to verify the record on site.

【Background】

Background: Finding a Way for Taiwan's Traditional Pottery

In the 1980s, Taiwan's traditional pottery industry faced a severe decline. My father's pottery plant, which produced flower pots and everyday ceramic ware, struggled as orders dried up due to a slumping economy. Faced with the choice to shut down or transform the business, I decided to start from the ground up—learning traditional pottery and working alongside my father to find a new path forward. Through our efforts and experimentation, we managed to sustain the industry, and now nearly twenty years have passed.

New Directions Through Transformation

This transformation opened the door for new perspectives and possibilities in ceramic art. During this time, two key encounters shaped my future direction—both of which I have followed for over two decades.

Rekindling the Kiln: The Origin of Glaze

One inspiration came from a senior ceramicist during the "Rekindle the Ancient Kiln" event. They told me, *"The most exquisite work, the most beautiful glaze colors, are on the wall in the kiln."* These words stayed with me and led me to reflect deeply. I spent nearly a year entering the snake kiln at noon each day, trying to understand the meaning behind that phrase. Eventually, I found my answer: *"The origin of the glaze."* Kiln sweat is the mother of glazes. If I could recreate this glaze—not artificially, but from the kiln itself—that would be the future of ceramics.

Fossils and the Birth of the Mother Glaze Concept

The second turning point was sparked by fossils. While clearing artworks from the Snake Kiln, I delivered a ceramic table and chair set to a collector who introduced me to Taiwan's native fossils. Fascinated by their formation and structure, I began studying fossils and their transformation—from stone to crystal, from temperature to crystallization. This led to my personal *"theory of rocks"* and the idea of Mother Glaze: a ceramic ware that undergoes mineral-like transformation inside the kiln. This understanding strengthened my belief in the potential of high-temperature wood-firing.

The Significance of High-Temperature Firing

Through wood firing, I realized that one does not need artificially formulated glazes to achieve beautiful, natural glaze colors. The secret lies in the firing temperature. To achieve natural glazes, one needs both a kiln capable of high temperatures and the skills to operate it. With over a decade of firing experience and knowledge inherited from my father, I finally succeeded in reaching over 1400℃. This enabled me to recreate the sweat-like glaze texture that had only ever appeared on kiln walls—a breakthrough achievement in my life.

The Birth of Future Ceramics

In 2012, I constructed a downdraft wood-fired kiln and broke the 1500℃ barrier, successfully firing kaolin clay into a mineral-like ceramic I named *Mother Glaze*. This concept reflects my belief that the earth itself is the world's largest kiln. Over millennia, it transforms rocks into quartz, crystals, jade, gemstones, diamonds, and beyond. Mother Glaze is the result of this philosophy—ceramic ware transformed by extreme temperature and time. This is what I call *Future Ceramics*.

Setting a Guinness World Record

Twenty years ago, when I claimed that wood-fired kilns could reach over 1400℃, many said it was impossible. Even after publishing my findings and being featured in major newspapers, skepticism remained. A colleague once asked, "If you can really do it, why not prove it with a Guinness World Record?" It was not just about the number, but the meaning behind it. Achieving such high temperatures using only wood meant complete combustion, energy efficiency, and reduced emissions. In 2016, I set a

Guinness World Record by reaching 1563℃, proving that wood-firing could be eco-friendly and sustainable. This milestone was documented on video and marked a turning point for Future Ceramics.

Carrying the Flame Forward

As the second-generation kiln master of Zhunan Snake Kiln, I continue to develop this philosophy and practice. The journey of Mother Glaze and high-temperature wood-firing represents not only a personal breakthrough, but also a vision for the future of ceramics—rooted in tradition, yet evolving with nature, science, and sustainability.

Lin Jui-Hwa
Second Generation Kiln Master of Zhunan Snake Kiln

【Independent Witness】

(1) Professor Liu Chen-Chou, former Chairman of Graduate School of Plastic Arts, National Taiwan University of Arts
(2) Professor Hsiao Kung-Chi, Retired Associate Professor, Department of Physics, Fu Jen Catholic University
(3) Dr. Kuo Huang-Tsun of Industrial Technology Research Institute

【Kiln Firing Team】

Primary Stoker: Lin Jui-Hwa.
Stoking Team: Deng Yu-Ting, Wang Yuan-Tang, Lin Ming-Wen, Wu Liang-Chung

【流程表】Schedule

Month	Day	Week	Time				Task	Stoker	Witness	Adjudicator
6	15	W	8:00~17:00				Check Kiln Loading	Lin Jui-Hua	Liu Chen-Chou Kuo Huang-Tsun	
6	16	Th	8:00~17:00				Loading, Sealing	Lin Jui-Hua	Liu Chen-Chou	
6	16	Th	18:00~24:00	6	6	h	Lighting, Low Temp	Lin Jui-Hua	Hsiao Kung-Chi	
6	17	F	0:00~8:00	8	14	h	Low Temp	Lin Jui-Hua	Kuo Huang-Tsun	

6	17	F	8:00~16:00	8	22	h	Low Temp	Lin Jui-Hua	Hsiao Kung-Chi	
6	17	F	16:00~24:00	8	30	h	Mid Temp, High Temp	Lin Jui-Hua Lin Ming-Wen	Hsiao Kung-Chi	
6	18	Sat	0:00~ 8:00	8	38	h	High Temp	Lin Jui-Hua Wang Yuan-Tang Deng Yu-Ting	Kuo Huang-Tsun	
6	18	Sat	8:00~ 16:00	8	46	H	High Temp	Lin Jui-Hua Wu Liang-Chung	Hsiao Kung-Chi	
6	18	Sat	16:00~24:00	8	54	h	High Temp (First temp spike)	Lin Jui-Hua Lin Ming-Wen	Liu Chen-Chou Hsiao Kung-Chi	Adjudicator 10-12
6	19	Sun	0:00~ 8:00	8	62		High Temp	Wang Yuan-Tang Deng Yu-Ting	Kuo Huang-Tsun Liu Chen-Chou	
6	19	Sun	8:00~ 12:00	4	66	h	High Temp (second, highest temp)	Lin Jui-Hua	Liu Chen-Chou Kuo Huang-Tsun	Adjudicator
6	19	Sun	12:00 Sealing							Adjudicator Guests
6	**19**	**Sun**	**14:00 Press Conference Certificate Presentation**							

7	3	Sun	10:00 Open	Lin Jui-Hua Everyone		Guests

DAY 1 6/15 Loading

Taiwanese Professor Liu Chen-Chou of National Taiwan University of Arts and Dr. Kuo Huang-Tsun of Industrial Technology Research Institute were invited as independent witnesses. Once the empty kiln was confirmed, 150 green bodies were loaded in order into the 0.6 m3 chamber. In the afternoon, Thermoway's expert temperature measurement team installed professional temperature sensing instrument, the high temperature thermocouple. At 5 PM, the chamber is sealed with Dr. Kuo as the witness.



DAY 2 6/16 Loading, Worship of the Kiln Spirit, Lighting

Placing the Kiln Kings: A Test of Craft and Fire

In the early morning, with two independent witnesses present, two *Kiln King Chawan* green bodies were carefully placed into the firebox. These *Kiln Kings* represent the most unique and exquisite works of each firing. The firebox, however, is the most hazardous area inside the kiln—while it yields the most stunning results, it also presents the greatest risk. Pieces placed here are prone to cracking, warping, or sticking due to extreme conditions, making the success rate exceptionally low.

In every firing, only two small corners within the firebox can accommodate these chawans. If, during this attempt to set a Guinness World Record, the pieces can endure temperatures above 1500°C without damage, they would rightfully earn the title *Kiln King*.

Introducing a Unique Wood-Firing Technique

During the sealing of the kiln, Lin Jui-Hwa demonstrated one of his signature wood-firing innovations. Unlike traditional methods, Lin exclusively uses waste wood as fuel. More impressively, he has developed a technique that allows him to load large volumes of this material prior to sealing the kiln, maintaining a low-temperature firing environment for 12 continuous hours. This method—part of what he terms the *Lin Wood-Firing Technique*—showcases his dedication to sustainability and technical mastery.

Rituals of Respect: Honoring Fire and Tradition

At 5:30 PM, Lin Jui-Hwa, joined by the two official witnesses—Professor Hsiao Kung-Chi (Associate Professor, Fu Jen Catholic University) and Dr. Kuo Huang-Tsun—along with the Snake Kiln team, held a ceremonial ritual to worship the Kiln Spirit. This ritual also honored the wisdom of the founding masters who first harnessed the power of earth and fire. With reverence and gratitude, the fire was lit, marking the start of a 51-hour non-stop firing—a critical and symbolic moment in both ceramic art and kiln culture.

DAY 3 **6/17 - low to mid temperatures**

After one night and one day of drying the kiln at low temperatures, the temperature had successfully risen to 1000 degrees by 5PM, faster and smoother than usual.

DAY 4 **High temperature. Setting a record of 1563 DegreesAt 10AM with witnesses present**

Lin Jui-Hwa and his team reached the 1500 degree official challenge mark earlier than expected and continued to march toward super high temperatures to challenge his personal record of 1555 degrees. The temperature had reached 1563 degrees before 9PM, and the adjudicator from Guinness World Records was on hand to verify the results.

DAY 5 Guinness World Record Certificate Presentation

With official adjudicator John Garland present, the certificate presentation and press conference were held to share the honor and joy of setting the world record with the Snake Kiln team and friends of Zhunan Snake Kiln.