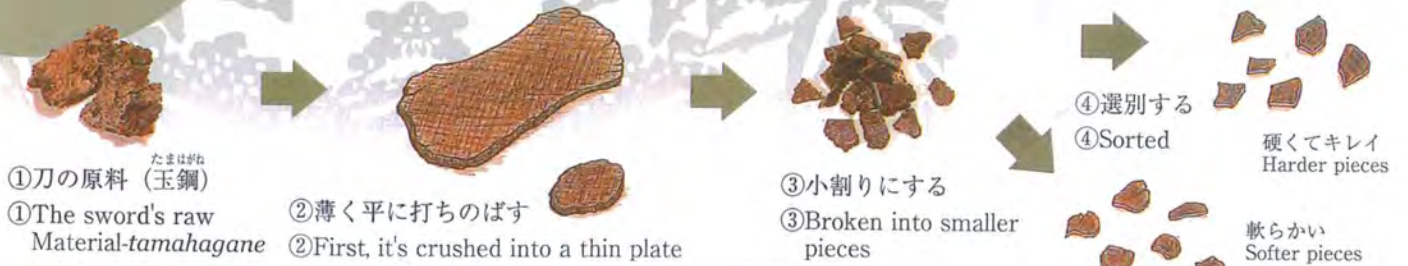


# 日本刀の製作工程



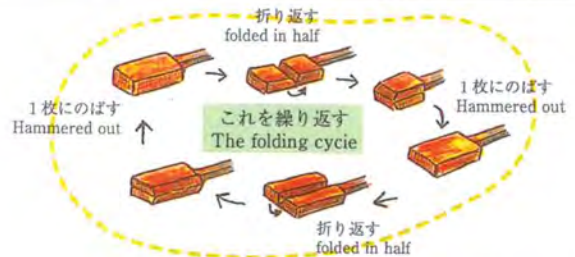
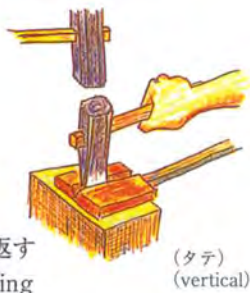
⑤ 同質の鉄であらかじめ作っておいた台の上にそれぞれ積み重ねる  
⑤ Pieces of the same quality steel are stacked onto a plate.



⑥ およそ1,300℃ぐらいまで炭を使い熱し、鍛接をする (※たたいてくっつける)  
⑥ The plate is heated to about 1300℃. The pieces are then hammered and welded together. (heated in a charcoal fire)



⑦ 切目を入れ折り返す  
⑦ Incisions for folding

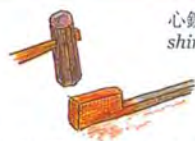


⑧ それぞれ10数回程度繰り返し、皮鉄・心鉄を形成する  
⑧ Each piece of steel is folded approx. ten times.

心鉄完成  
completed shingane



心鉄  
shingane



⑨ 皮鉄  
kawagane



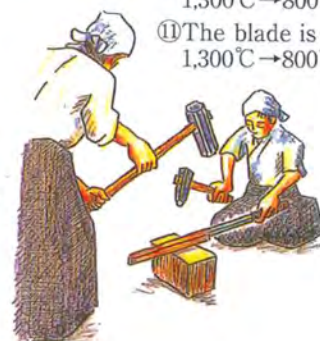
皮鉄完成  
completed kawagane



打ち曲げる  
Hammered into shape

⑩ 刀の形に延ばしていく  
1,300℃→800℃  
⑩ The blade is hammered out.  
1,300℃→800℃

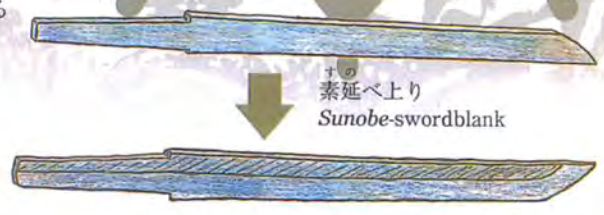
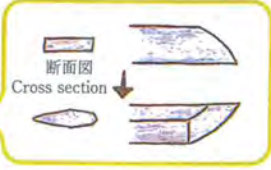
⑩ 2つを組み合わせて鍛接する  
⑩ The two pieces are joined and welded together.





# The Japanese Swords Production Process

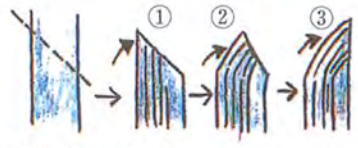
- ⑫この段階で、日本刀としての姿がはっきりわかってくる  
小鋤を用いて打ち出していく  
⑫At this stage the steel is hammered into the  
intended shape of the blade.



- 火造り上り (刃側を打ち出す)  
700℃  
The blade is heated and the  
cutting edge is hammered out.  
700℃



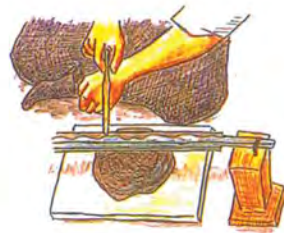
— 切先の打ち出し —  
— Forming the *kissaki* (point section) —



まず、ななめに切りおとす  
First, a diagonal cut is made.

矢印の方向に、加熱して小鋤で  
たたいて、切先を打ち出す  
It is heated, and using a small hammer  
the *kissaki* is formed in the direction of  
the arrow.

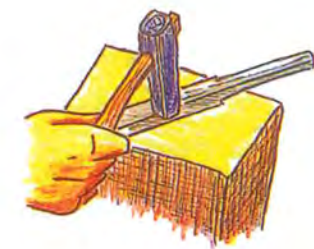
- 刀身を赤らめる 800℃～900℃  
⑮The blade is heated red-hot 800℃～900℃



- ⑬火造りしたものをヤスリやセンという  
道具を使い、小さな凹凸を平面になる  
よう削り整え、さらに粗い砥石で綿密  
に仕上げる  
⑬Now that the blade has been shaped,  
a file and tool called a *sen* are used  
for smoothing the blade. For finer  
smoothing, a rough whetstone is used.

- ⑭刃紋を入れるため 焼刃土を塗る  
(※ねん土・炭・砥石を混ぜたもの)  
⑭Clay is applied for *yaki-ire* (quenching)  
(a mix of clay, charcoal and powdered whetstone)

- 焼き入れ  
⑯ *Yaki-ire*



- ⑰ひずみを取り全体を整える  
⑰Any distortions in the blade are corrected

- ⑱砥石で研ぐ (鍛冶研ぎ)  
⑱It is polished using a whetstone

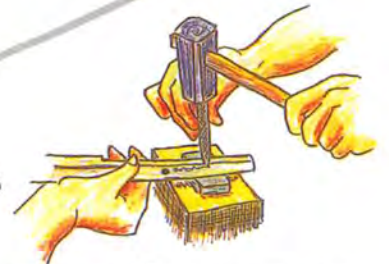


- ⑲研ぎ師をはじめとする、職人へ回す  
⑲The sword is now passed to a professional sword polisher



- ⑳完成!  
⑳The finished blade

- ⑳最後に銘を入れる  
⑳Lastly, the blade  
is signed



監修：全日本刀匠会 資料提供：奈良県立橿原考古学研究所付属博物館  
Production by The All Japan Swordsmiths Association. Translated by Paul Martin  
Courtesy of The Museum Archaeological Institute of Kashihara, Nara Prefecture

