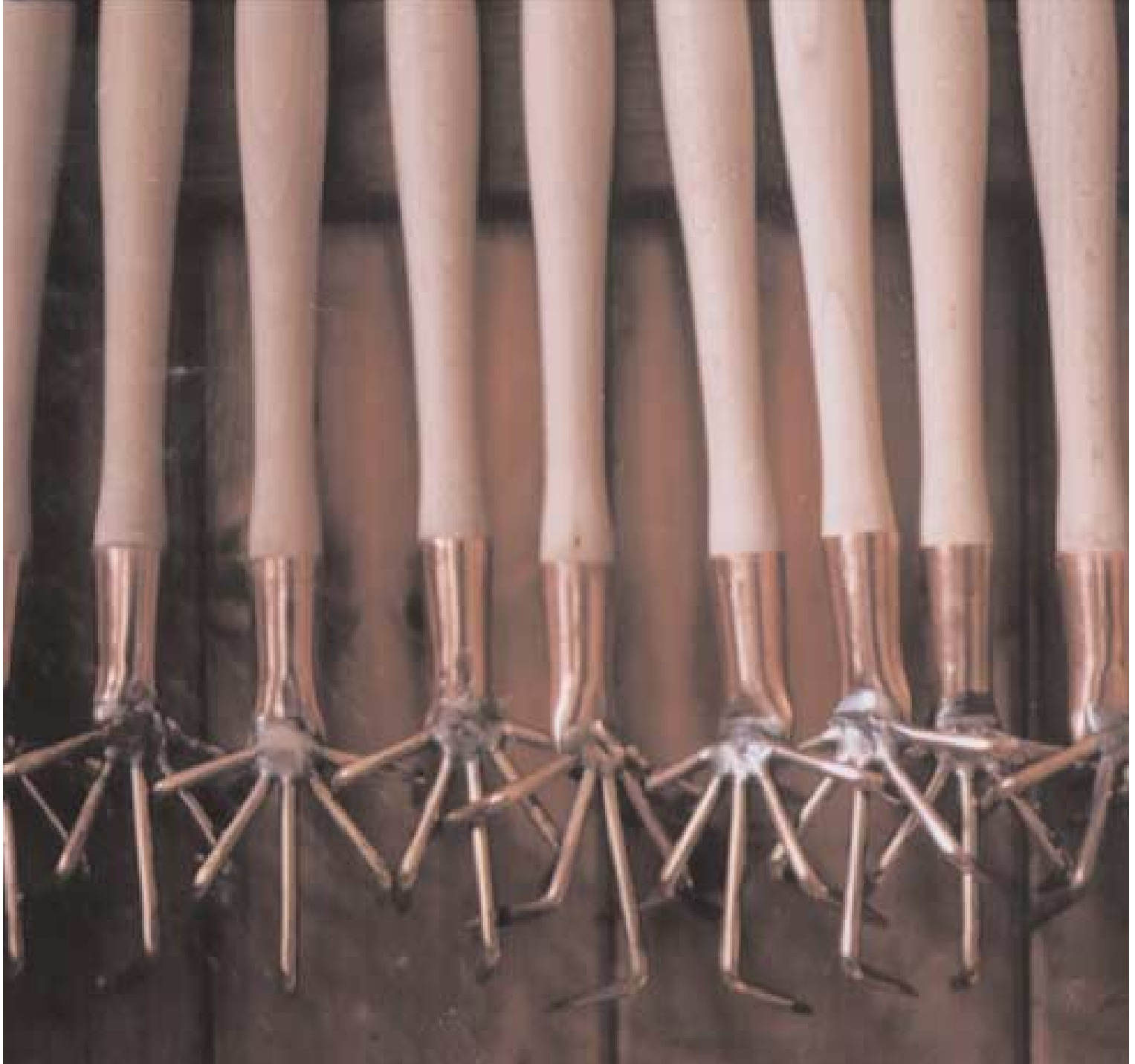
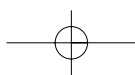
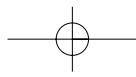


## MAKER



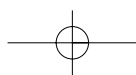
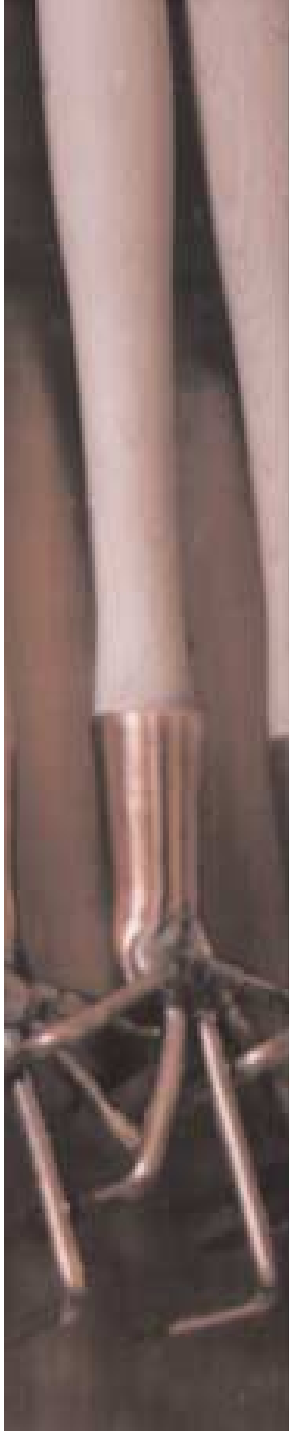
ABOVE: LYRA CLAWS HANG SIDE BY SIDE; EACH OF THESE 33CM-LONG TOOLS HAVE FIVE PRONGS FITTED TO A TURNED BEECH HANDLE.  
OPPOSITE: THE COMPONENTS OF A POLUX HOE, THE PERFECT TOOL FOR PRECISION WORK IN A DENSELY PLANTED GARDEN.

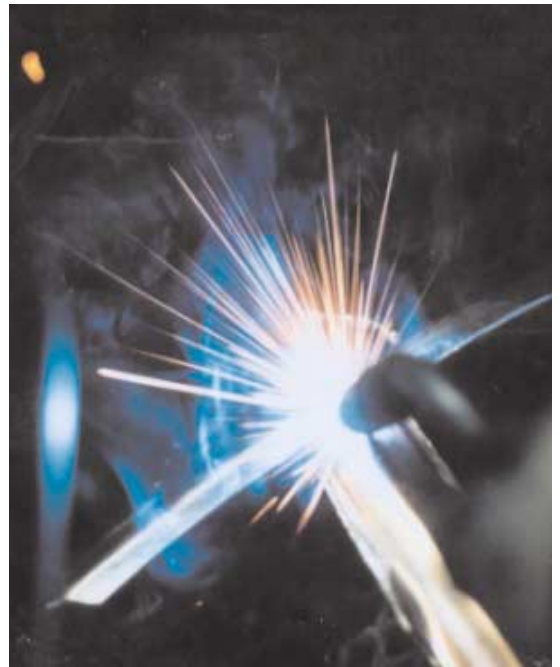
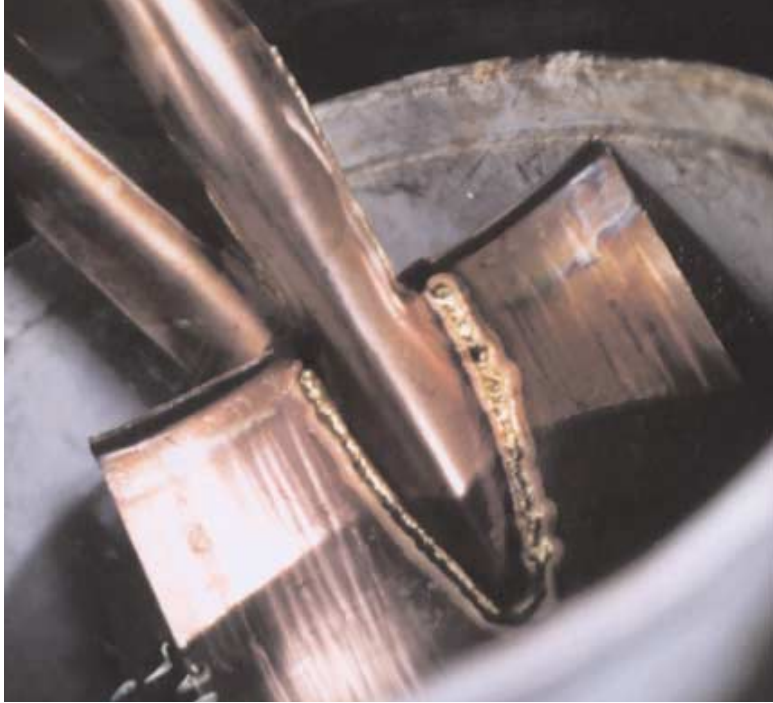
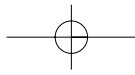




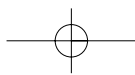
# Copper bottomed

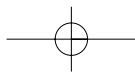
IN A FORMER HUNTING LODGE IN AUSTRIA, GARDEN TOOLS ARE HAND  
FORGED FROM COPPER, IN THE BELIEF THAT THIS NOBLE METAL IS KINDEST  
TO THE SOIL. WORDS BY SANDRA DEEBLE. PHOTOGRAPHS BY GAVIN KINGCOME





ABOVE, CLOCKWISE FROM TOP LEFT: FRANZ HOFLER USES THE WELDING TORCH. THE CASTOR TROWEL, WITH ITS POINTED DESIGN AND BEECH-WOOD HANDLE, IS ONE OF THE MOST POPULAR PKS TOOLS. BLADES FOR THE LIBRA SHOVEL. HYDRA HOES AND PEGASUS PICKS.





At PKS Copper Tools, nobody has any truck with calling a spade a spade. Instead, the Orion was born. A rake is Perseus; a hoe, Sirius; and a pick answers to the name of Pegasus. The range of hand-forged copper garden tools produced by PKS has recently reached the dozen mark, with a shovel – Libra – being the latest tool. The company is entering its seventh year of sales, and Jörg Schauburger, administrator of the PKS association, says that while the company is keen to grow, the production process will never change. “Six years ago we sold 400 tools in one year. This year it will be more like 3,000. We could go up to 6,000 tools, but we will always forge the tools by hand.”

The story of PKS Copper Tools starts 70 years ago, when a pioneering ecologist and forester called Viktor Schauburger was asked by the King of Bulgaria to investigate the decline in soil productivity in northern Austria. Viktor had a suspicion that copper rather than iron tools were kindest to the soil, although he had to wait until after the Second World War to prove it.

Finally, in the late 1940s, agricultural trials were carried out: the same field of corn was ploughed in alternate strips using two tools made of different materials. One plough was made of iron; the other, ‘The Golden Plough’, was copper plated. The results confirmed Viktor’s suspicions: the strips ploughed with the copper-plated tool produced a yield of corn eight times higher and 40 per cent greater in weight than those ploughed with iron. Viktor attributed this to the iron oxidising into rust, which in turn caused the soil to dry out. Following the agricultural trials, Viktor patented his own copper-plated plough, but as copper was in short supply at

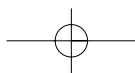
the time, his project was put on hold.

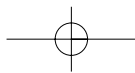
Viktor Schauburger was one of the world’s first natural scientists, and with his son Walter he founded the Austrian ecological movement. Established in 1949, ‘The Green Front’ aimed ‘to make the earth fertile again’. Continuing his father’s legacy, in the 1970s Walter Schauburger established the Pythagoras Kepler School (PKS) in an imposing hunting lodge in Bad Ischl, in the Salzkammergut region of Upper Austria. There, Walter became involved in teaching and researching his father’s discoveries, most of which were based on acute observations of nature.

Five years after Walter’s death in 1994, his son Jörg gave up his career as a radio journalist to promote the work of PKS – particularly the copper garden tools that Viktor first patented in 1950. Jörg’s first task was to find a coppersmith in tune with the family’s mantra: ‘Comprehend, copy and co-operate with nature.’ When he discovered Franz Höfler at a PKS seminar, Jörg knew he had found a soulmate. “Every single piece Franz makes is a work of art,” says Jörg. “He’s an artist, and he understands what my grandfather was trying to do.”

“Copper is a noble metal,” says Franz. “When I’m making these garden tools, I know that someone is going to really enjoy working with them. They’re sharp and easy to use, and they do the soil a lot of good.” “They are also beautiful,” Jörg adds, saying that a lot of PKS customers buy the tools with no intention of using them. “They hang them in the house as copper artwork.”

In his workshop, Franz gets ready to make a shovel. He places a shield-shaped iron template on a sheet of copper and traces round it, lightly scratching the surface, before cutting it out with plate scissors. Using a welding torch, he





applies heat to the spade, just enough to make it malleable, before gently curling the edges to create a lip. As the heat licks the copper, distorted colours emerge, like oil in a puddle. This riot of colour eventually settles down to a pinky blue before fading to a mother of pearl.

At this point, Franz obviously means business, because he puts on his earphones just as we're subjected to an excruciating level of noise from a mechanical sledgehammer – a brute of a machine. Franz sits astride it, like a potter on a wheel, wearing gloves, a leather apron and sitting on a fur blanket as he hammers the shovel, holding it with both hands as he moves it around to make sure the copper is worked evenly. As he reaches the edges, they flatten out, clearly becoming sharper at the same time. "Copper is a soft material," Franz explains, "and this process, known as cold forging, is what gives copper the necessary strength to act as a garden tool. It also gives the tool a subtle, ribbed appearance." One advantage of the copper tools is that when you want to sharpen them, you can just bash the edge of the blade with a mallet. Would-be competitors to PKS have attempted to copy their garden tools by pouring molten copper into a mould, but this results in weakening rather than strengthening the metal.

The majority of the handles are crafted locally from lime wood grown in

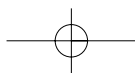
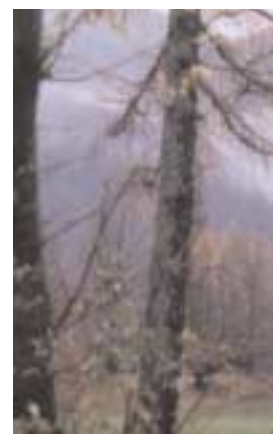
Romania. Lime wood is more hard-wearing than pine – traditionally used for tools in the UK – but is light and comfortable to use. For the spade, ash is employed, the conventional wood for a spade handle. As the wood turner shaves off long whorls, he could be fashioning a rifle butt or an oar. The ergonomic handles, piled up in the corner and looking eerily like bones, are left unpolished and soft to the touch.

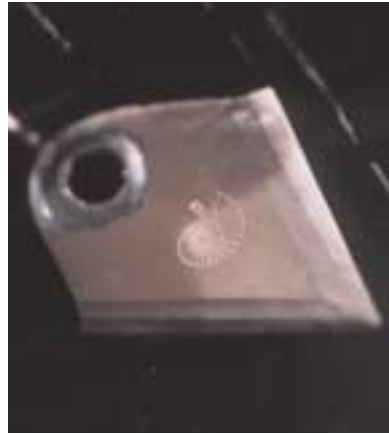
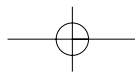
Franz Höfler then solders what looks like a giant copper clothes peg to the spade. A seam of gold bubbles up. He grinds this down, flattening the beads; it now looks like golden putty. The shovel is polished pink before the PKS marque is stamped on, the organic spiral of the Pythagoras Kepler System. When the wooden handle is finally fitted, one of Franz's assistants (nobody else gets a look in with the sledgehammer) is allowed to hit it hard twice on the ground, something he does with regal pride.

Gardeners who have converted to copper tools not only rave about the glint of the metal in the sun, but also the tactile lime-wood handles and the feel-good factor you get from using them. And the ultimate benefit is, for some reason, that one sniff of soil dug with a copper tool seems to elicit a unanimous U-turn by slugs and snails. "People often buy the copper tools as a present," says Jörg. "But when they try them out, they just have to buy more for themselves."

*For more information about copper call the Copper Development Association on 01442 275700. To purchase PKS' copper tools in the UK, call Implementations on 0845 330 3148 or visit [www.implementations.co.uk](http://www.implementations.co.uk). In the US, contact EarthHeal on 800 771 9957.*

*GARDENS ILLUSTRATED readers can buy a Castor trowel and Lyra claw for £45 (saving £2) including free p&p, by posting a cheque (payable to Implementations) to PO Box 2568, Nuneaton CV10 9YR. Include a delivery address and telephone number, and quote GI. ■*





TOP ROW: ERGONOMIC HANDLES. HAND CRAFTING LIME WOOD. A PERSEUS RAKE TAKES SHAPE. MIDDLE ROW: SIRIUS HOE. WELDING. THE PKS MARQUE ON A POLUX. FRANZ HOFLER AT WORK. BOTTOM ROW: THE PKS HEADQUARTERS AT BAD ISCHL. PERSEUS RAKES. LIBRA SHOVEL.

