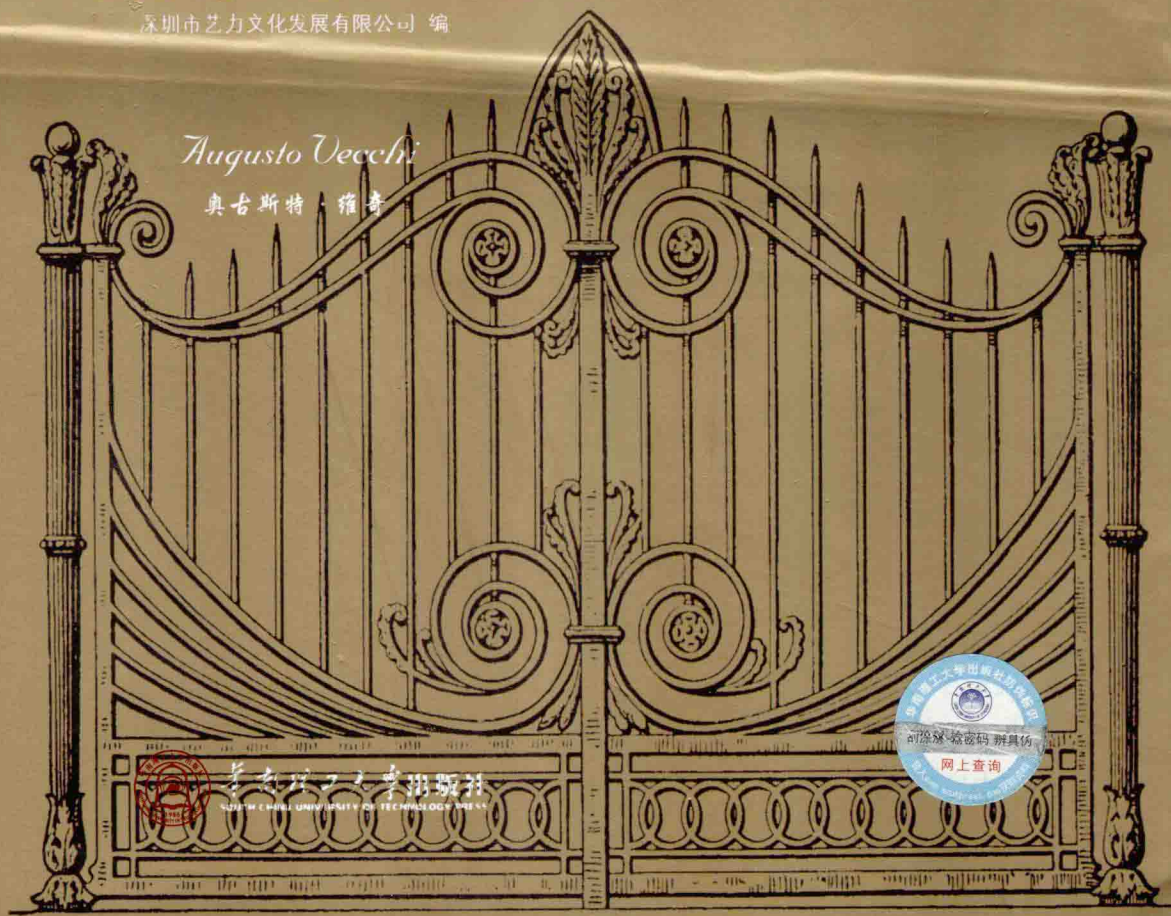
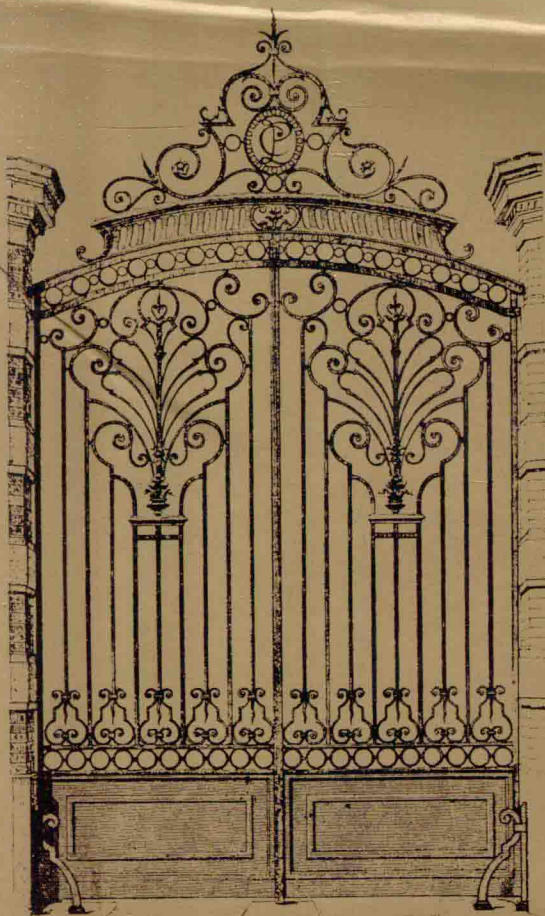


Iron *History and Technique*

铁艺历史和工艺

深圳市艺力文化发展有限公司 编



Augusto Vecchi

奥古斯特·维奇



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Introduction

简介

The term "Wrought iron" includes the concepts of hammered and notched cast iron. For many people, it becomes synonym of a kind of art which is tied to the past, or even an extinct art. In fact this viewpoint is quietly limited and even so wrong, since in recent years for many artists and artisans the productions of Blacksmith have been known as rebirth and renewed interests. As all the other materials, the iron also bears a history of ups and downs, during which the iron sometimes played a leading role and sometimes a supporting role, in comparison with all the other materials of highest value. Upon different eras when the iron was used, it has undergone a progressive evolution from the constitutive element of simple utensils to a material suitable for decoration and more precious productions. The apogee of Blacksmith creation is the baroque era, during which the architecture innovates and becomes the dance of forms and of twisted decorations. In comparison the previous eras are characterized as the most austerity.

This book refers to grill gates and gratings, which are traced back to a period from when unfortunately very few examples survived. After a short turning back to the classic and linear shapes, which are less attractive to the Blacksmith, the liberty style inaugurates a new season and makes the products of this material a big success.

This volume is dedicated to Dr. Arch. Bruno Gonzato., whose love for the Blacksmith made his company, Italian Industry Arteferro SpA, become the undisputed leader around the whole world.

Augusto Vecchi

“锻铁”是指经打磨和雕刻加工而成的生铁。对很多人来说，锻铁已经成了一种艺术，它似乎属于过去，甚至已经绝迹。其实这一观点未免略显狭隘，甚至是错误的，因为近几年许多艺术家和手工艺者都认为锻铁代表着一种重生和革新。与其他许多材质一样，锻铁也经历过一段起伏期。在历史长河中，与许多价值连城的材质相比，它有时充当着主角，有时又充当着配角。随着时间的流逝，锻铁也从最初仅仅被用来制作一些简单器具，逐渐演变成成为制作装饰品或名贵工艺品的材料。锻铁制品的鼎盛时期是巴洛克时期。在此之前，铁制品比较单一简洁。巴洛克时期，锻铁工艺经历了重大革新，形状变化多样，充满趣味。

本书所介绍的铁门和铁栅栏都可以追溯到远古时代，只有少量当时的作品保留至今。简洁经典的款式并不适合铁艺制品，流行了一段时间后，则被紧接而来的自由风格所取代，后者将铁艺制品带入了新纪元。

本书谨献给建筑师布鲁诺·龚琪多博士，他挚爱铁艺艺术，其创建的意大利铁艺工艺有限公司成为了全球行业领头羊。

奥古斯特·维奇

Acknowledgement

鸣谢

The great parts of the present works exclusively belong to the Italian Industry Iron Art SpA. The company has granted the authorization in order to publish this book and disseminate the art of Blacksmith. Therefore, the reproduction, by any means, in any title or for any personal reason, is prohibited, even in a partial way.

Italian Industry Iron Art SpA of Mr. Gonzato was established in 1971, forging the products with dedication and constant professional enthusiasm. Being a pioneer of the Blacksmith culture, the Gonzato family has attended most of the international events of this sector, leading fashion, ideas and also the productions of perfect quality.

Now Italian Industry Iron Art SpA is not only the leader in Europe, with show rooms located in Germany, France, Spain and Scandinavia, but also around the whole world, with branches in America, Brazil, Russia and Singapore.

The workpieces presented in this book are merely a quick glance of the productions of Italian Industry Iron Art SpA. For more information, please refer to their website: www.arteferro.com.

这里呈现的绝大部分铁艺作品都出自意大利铁艺工业有限公司。该公司特别授权本出版社出版本书，传播铁艺文化。未经授权，任何单位或个人不得以任何形式、主题，盗版、部分截取或复制本书。

龚琪多博士的意大利铁艺工业有限公司成立于1971年。所有的产品都是出自团队在铁艺方面的专业水准以及源源不断的热情和奉献。作为该领域的先锋，龚琪多家族参与了绝大多数的国际性展会，引领业界潮流，同时向世界展出了大量的品质一流的作品。

目前，意大利铁艺工业有限公司在德国、法国、西班牙和斯堪的纳维亚设有展厅。然而它不仅是欧洲的领头羊，也是全球的引领者，并且在美国、巴西、俄罗斯和新加坡也都设有分部。

本书所列举的仅是意大利铁艺工业有限公司的极小部分作品。如若需要更多信息，请查阅网站www.arteferro.com。





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Iron Technique Overview

铁艺工艺概述

One of the oldest decoration techniques, which we saw the trace in 13th century, is forging on the die or hammering. This process is applied by using one or more steel dies. The dies have different shapes and the metal plates are deformed according to the die's shape. Another technique of the decoration is etching with acid. Especially from 15th century to 18th century it is widely used to decorate the armors and other objects that require some refined processes, like casket or other precise steel instruments.

The acid is engraved into the paintings and the rest of the metal plate is covered by glass. Etching is an ancient technique of decoration and widely used in 17th and 18th century for steel objects. The painting is engraved with a steel graver which is more resistant than the decorated work piece. The depth of incision is limited by the strength of the material, but it is specially used for some delicate workpieces of doors and windows and some very specialized blacksmiths products.

The process of tempering is applied with burning heat after a sudden cooling. This application can protect the material from rust and also produce some colorful decorative effects on the

模锻是13世纪发明的一种最古老的铁艺制作工艺，即用锻模将金属坯料锻压加工成形。在15世纪到18世纪，还流行蚀刻工艺，通常用于制作一些武器或者一些如铁匣等的雕刻精细的铁艺物件。

蚀刻时，金属坯料上用玻璃板覆盖。在16世纪和17世纪流行雕刻工艺，一般用一种特别的钢制刻刀雕刻图案，由于刻刀的硬度有限，这种工艺仅用于一些特殊的铁艺制品，如锁具。

淬火是在将金属工件迅速冷却后进行的热加工处理。淬火可以防止金属件生锈，还可以在如锁具、铁匣和兵器等金属物品上做颜色处理。

locks, caskets or weapons.

Another technique, which is used especially for the silver and copper workpieces and sometimes also for the iron products, is repoussage. With it, the thin metal laminates, like iron piece, can be covered with a less resistant material and moulded with die until it obtains an ideal shape. And niello technique: an engraved design is filled with a mixture of copper, silver and sulfur; after being heated up, the inlay becomes black and contrast from the bright and clear base.

The niello technique is also called as "technique of Tula", homonymic Russian city, which was renowned center in 17th and 18th century.

Now let's discuss together the general characteristic of the iron, both the availability and problems during the production. The homogeneous iron has a feature of avoiding being more fragile and harder. This characteristic also enables the iron to easily be processed with hammer after being heated and then cooled down immediately.

一种通常用在银器和铜器的浮雕工艺，有时也会用在铁器加工中。即在薄薄的金属片上镀上一层硬度较低的物质，经过打磨获得所需的形状。还有一种乌银镶嵌术，即在已经雕刻好的金属板上加入铜、银或硫磺，加热反应后，镶入物变暗黑，与明亮的底板形成鲜明的对比。

乌银镶嵌术也被称为“图拉的工艺”，与17世纪和18世纪的俄罗斯铸铁中心名城同名。

现在我们一起看一下铁的基本特性，包括它在加工过程中表现出来的优点和缺点。均匀的铁，既不会变得过硬，也不会变得过软，它在高温加热又迅速冷却后，易于打磨。



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If the iron contains some phosphorus, sulfur, arsenic, copper or any other impurities, it will become fragile and even broken when being heat processed. Instead if it contains some phosphorus, the iron can be processed on the heat, but it will become fragile when being worked on a cold end and will be broken very easily. The presence of calcium or other impurities will take away from the malleable iron the feature of being able to be welded directly. That's why the welding of iron, and generally speaking the blacksmith art, has realized a significant progresses in the entire steel industry and also in the regions which owns a lot of nice minerals.

As we implied before, the so-called "native" iron has the only minim quantity in nature. Usually it combines with nickel and other elements. It's quite common that in the mixture, we cannot distinguish which is body and which is container.

The pure iron is very malleable. It has a density of $7.86\text{g}/\text{m}^3$, melting point is 1529° and boiling point is 2450° . With carbon and silicon, the iron will magnetize easily and even faster. So it's widely used for the induction devices. It has three allotropes that transform from each other according to the temperature changes.

The iron is the metal which has the most technical appliances, thanks to the facts that the features can vary greatly with even just a little more other elements or through some thermal treatment. The possible variations should happen to tenacity, hardness, elasticity, dilatability resistance to the chemicals, magnetic properties and etc.

如果铁中混有磷、硫、砷、铜或其他杂质，它在加热过程中会变得脆弱而易断。若它仅含有一些磷，它仍然可以加热处理，但是在之后的冷却过程中会变得非常容易碎。一些钙或其他杂质的存在会影响可锻铸铁的可沸腾特性，即铸铁将无法直接锻造。这便是焊铁工艺，或者更通俗地叫铁艺艺术，是使整个钢铁产业和那些富含优质矿元素的地区都实现了一次重大突破的原因。

如前文所述，所谓的纯铁数量很少。通常铁中含有镍或其他金属元素。人们常说，在铸铁中，很难区分哪种元素是主体，哪种元素是混合物。

纯铁是可锻的。它的密度是 $7.86\text{g}/\text{m}^3$ ，熔点是 1529° ，沸点是 2450° 。铸铁中含有碳或硅，更容易磁化，并且磁化速度快。这种磁铁一般用来制作感应设备。铁有三种同位素，随着温度的变化互相转换。

铁在科技领域被广泛应用。这归功于它可以通过增添少量其他元素或受热而改变其特性。它的韧性、硬度、伸缩性、延展性、耐蚀性和磁性等都可以发生变化。

The pure iron is never used for a technical purpose, but the iron is usually used combining with carbon, magnet, vanadium, tungsten, molybdenum, etc. The tensile strength of the iron floats from 314 to $412\text{N}/\text{mm}^2$. A precious characteristic is iron's forgeability; the malleability is connected with ferrite crystal: smaller they are, more malleable the iron is. Soft iron is a product of iron and steel with small amount of carbon and even some scoria. Soft iron is susceptible to weld itself.

In ancient times in order to prepare the soft iron, people used Catalan system, which processes directly the mineral in a bloomer (Catalan forge) with charcoal. The carbonic oxide is formed and together with glowing charcoal, it reduces the mineral in a metallic iron; it releases small pulpy masses, which are extracted from bloomer and are welded together into a large mass. The large mass is then hammered to get rid of the scoria. In this way the iron will be very pure, but the process is very long and expensive. Around 17th century, the iron starts to be processed directly into cast iron, which should eliminate extraneous elements through oxidation at high temperature. For the purpose of following different methods, for example "Bergamo" forge, in a bloomer similar as Catalan forge, the charcoal gets burning and when it is in full combustion, the cast iron is added piece by piece and mixed into bladesmithing (containing iron oxide).

In this way people burns also silicon, manganese, and carbon, when iron oxide detains sulfur and phosphor. In this way the iron is separated, quite pure in small masses which can be mixed again into a large mass with hammering.

工业用途的铸铁都不是纯铁，一般都会混入一些其他元素，如碳、锰、钒、钨和钼等。铸铁的抗拉强度在 $314\text{N}/\text{mm}^2 \sim 412\text{N}/\text{mm}^2$ 。铸铁最珍贵的特性是它的可锻性。这与铁的磁晶体有关：晶体越小，铁的可锻性越强。熟铁中含有少量碳和矿渣，易于锻造。

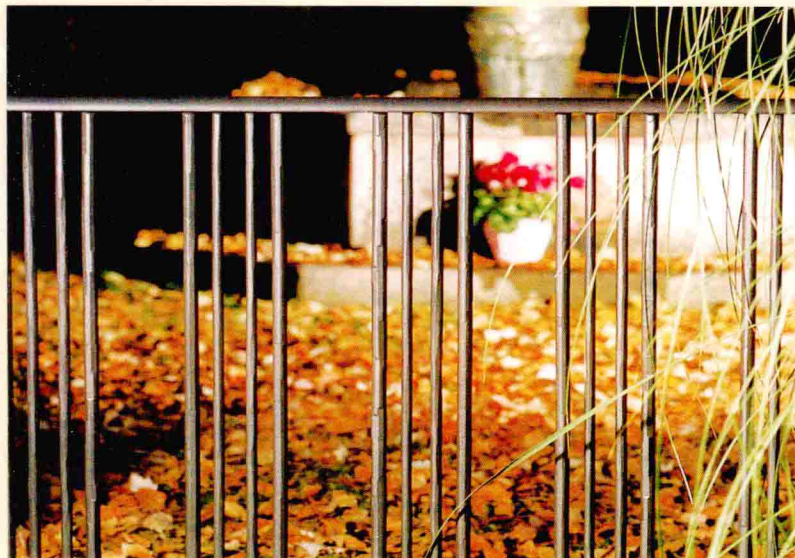
过去为了获得熟铁，人们用一种被称为加泰罗尼亚系统的锻造法，即在锻造炉（加泰罗炉）内，加入一些木炭，直接加工各种矿物。生成的一氧化碳和木炭一起将矿物提炼成金属铸铁。锻造炉中慢慢生成一些小粘团，最终被锻造成一个铁块。再将铁块不断打磨，去除矿渣，精炼而成。用这种方法锻造的铸铁很纯，但是制作过程耗时过长，费用过高。在17世纪左右，人们将铁加工成铸铁，通过高温氧化处理除去其中杂质。人们开始使用不同的加工技术，比如与加泰罗锻造法相似的贝加莫锻造法。先燃烧木炭，当火势足够旺盛时，逐块加入铸铁，锻造成型（其中含氧化铁）。

同样，人们也会燃烧硅、锰和碳，氧化铁会除去其中的硫磺和磷。通过这种方法，铸铁被分成不含杂质的一个个小块，再通过锻造，可以铸成大块。

Iron Technique Overview

铁艺工艺概述

In the process of "puddling", instead people use coke and reverberatory whose base is coated with iron ore (iron oxide). The reverberatory is maintained at a temperature between the melting point of cast iron (around 1100°) and that of iron (around 1500°). The oxygen of iron oxide of the base and that of the air make carbon and sulfur burn and also oxidize silicon and manganese. Gradually the cast iron is losing the carbon, its melting point is going up and the products are made in mass.



This operation is applied by keeping the mass in constant agitation by means of iron rods through the appropriate hole of the furnace from the workers. Also here the iron, which is gradually formed, is releasing the doughy lumps that can be collected and gathered into a larger mass by hammering.

With the invention of rotary kiln, people eliminate the inconvenient stirring of the masses by hand. This kiln is made from a center where the carbon burns in a cylindrical furnace called "stove" or "egg", which is revolving above rolls and holds in the rotary

浇注过程中，则使用焦炭和反应炉，反应炉的底板上会镀上一层铁矿（氧化铁）。反应炉内的温度维持在铸铁（熔点1100°）和生铁（熔点1500°）的熔点之间。氧化铁和空气中的氧分子使炉内的碳、硫燃烧，同时氧化了硅和锰。渐渐地铸铁中的碳消失，铁的熔点不断上升，最终熔为铁块。

炉外工人用铁棒穿过锻造炉上某个适当的孔，不断搅拌铁块。这时的铁块逐渐变形，分裂成一个个小粘块，通过锻造，最终小铁块又将熔为大铁块。

回转炉的发明，避免了手工搅拌铁块的麻烦。回转炉是被称为“火炉”或“鸡蛋”的圆形锻造炉，中心部分用于燃烧碳料，可旋转，通过齿轮装置，在水平轴上旋转运动。炉内涂上耐火材料；将液态铁引入，炉子周围的氧化火焰不断燃烧，铸铁中的碳逐渐消失，转化成可用于锻造的铁块。

最近人们又开始试图从矿石中提取铁，与加泰罗尼亚方法使用木炭不同，人们

movement on the horizontal axis by means of a toothed wheel. The furnace of cast iron is coated inside with refractory material; the liquid iron is applied when the oxidizing flame is passing from the attached furnace; the cast iron is gradually losing its carbon and is transformed into iron mass which can be extracted and hammered.

Recently people attempt to re-acquire iron directly from the ore, but instead of using the charcoal as in the Catalan method, they use the fuel (hydrogen and carbon monoxide produced from coke).

This process is cheaper than old Catalan, and make more pure products.

Very pure iron is then obtained by electrolytic solutions of sulphate or ferrous chloride. The anodes are given by plates of iron or steel and the cathodes have different forms depending on the products you want to achieve.

The fracture surface of a good iron must be clear grey and in a fibrous structure. The tests for tension, compression and elongation are very important for the evaluation of quality; a good iron must be able to bend many times without breaking.

The test should be done on an iron block with a V-groove: take a test material with 20cm length and about 0.8cm diameter. It is beaten by a hammer in order to have a shape of V; it is straightened and bended again, but in an opposite direction as before and then straightened still. The piece must remain intact. The test should be made through heat or cool.

Other tests are made in 1200—1300°C: the rod is bended itself repeatedly; it is cracked apart and two flaps part away. If the iron is

开始使用一种高效燃料（从焦炭中提炼氢和一氧化碳）。

这种方法比古老的加泰罗尼亚方法更经济实惠，制成的铸铁杂质含量更少。

很纯的铁是由硫酸盐或氯化亚铁的电解质溶液获得的。铁板或钢板构成阳极，阴极则根据人们想要达到的效果形成不同形状。

良好的铁的断裂面必须是浅灰色，呈纤维结构。拉伸、压缩和伸长率的测试是评价质量的重要方法，一块好的铁必须能够弯曲多次而不被折断。

该测试可以在一个V字形凹槽的铁块上进行：用一块长20cm、直径为0.8cm的测试材料，用锥子打磨成V字形，然后向反方向拉伸再弯曲，不断拉伸，全过程铁块均保持完好。整个测试可以进行加热或冷却处理。

其他测试则在1200~1300° C之间进行：不停弯曲铁块；它会在某个极点断裂，

Iron Technique Overview

铁艺工艺概述



Iron Technique Overview

铁艺工艺概述

good, it shouldn't be broken up. Or on a sheet of iron in test, some holes are punched near the end of the blade. It should neither be parted nor be split after being folded over itself on the point where it was perforated.

Finally the bar whose diameter is half of the length, placed upright on an anvil, must be able to be beaten until shrunk by one-third of its length without any cleavage.

Now let's see some practical rules for operations related to the manufacture and the maintenance of iron.

The first are real recipes, which were still adopted in the first decade of our century by each blacksmiths products, regarding burnishing, nickel, silver and gold of iron.

Today these rules begin to become rare and mystery formulas as those of necromancers. But many veteran artisans still adopted them.

A good solution to platinize the iron is as following: 3 liters water, nitric acid 60g, copper sulfate 100g, nitric acid 140g, iron tincture 15g, corrosive sublimate 135g, alcohol 130g.

The objects are coated with this solution by sponge. And they are left to dry for 30 hours and then a stiff brush is used. Then brush again second coat of the same material. And wash away with boiling water and make them dry immediately. The burnished objects are preserved with a light coat of linseed oil or varnish.

To nickel iron through immersion, in case of small objects which

分离成两段。好的铸铁是不会碎裂的。在测试的铁块两端，会打入一些洞眼。即使在洞眼周围不断折叠弯曲，铁块也不会断裂。

原本铁棒的直径为长度的二分之一，经过不断打磨，缩小至长度的三分之一，并且没有任何裂痕。

现在，让我们看一些与铁的制造和保养有关的实际规则。

最先使用的规则是一些真正工艺，这些工艺在20世纪前10年，仍旧广泛使用于各种铁艺产品，包括抛光，镍化、镀银和金于铁。

今天这些工艺已经变得神秘而罕见，像法宝一样珍贵。不过很多老的手工艺者仍在使

下面介绍一种优良的镀铁方法：混合水3L、硝酸60g、硫酸60g、硝酸钾140g、铁酞15g、升汞135g、乙醇130g。

用海绵将化学涂料擦拭在金属块表面，放置干燥约30小时，用硬毛刷再次擦拭。紧接着，涂上第二层涂料，用沸水冲洗后立即风干。在抛光后的金属块表面涂上

are difficult to deal with the electrolytic system, the procedures are the followings: the nickel sulfate is dissolved in a solution of 12% zinc chloride and it is heated until getting boiled and put in an earthen vessel. The objects to be nicked are immersed for an hour and then get dried by plaster powder and brushed for polishing.

To prepare a powder capable of nicking the iron and any other metal with simple scrubbing:

Mix nickel powder 30g, sulphate of ammonia 40g, magnesium 4g.

Clean and rub the objects with little powder distributed on a wet cloth.

For silver plating: rub the object with a piece of flannel which is soaked in the following mixture: distilled water 20g, hydrochloric acid of ammonia 15g, sodium chloride 55g, potassium 40g, silver chloride 30g.

For the gilding of iron and steel: to dissolve gold chloride 2g and potassium ferrocyanide 20g into 200g water. Prepare separately maximum saturated solution of potassium; by mixing together, two solutions become the liquid of gold plating which must be diluted with little water.

The pieces to be gilded are immersed in this solution: the greater or minor intensity of the gilding depends on the time of immersion; the objects extracted from the solution should be rinsed in acidulated water with sulfuric acid and rubbed with a cloth.

亚麻籽油或油漆用于保存。

有些小工件很难用电解方式处理，则会采用浸泡的方式镍化。步骤如下：将氯化锌放在一个瓦器内，溶解在12%的硫酸镍溶液中，加热至沸腾。镍化物浸渍1小时后，用石膏粉擦干，再用毛刷抛光。

为了制作一种通过简单的洗涤方式就可获得镍化铁或其他任何金属的粉末，有如下方法：

混合镍粉末30g、硫酸氨盐40g、镁4g。

用湿布沾取少量粉末，擦拭物品。

镀银方法：用一块浸渍有下列溶液的法兰绒擦拭：蒸馏水20g、盐酸氨15g、氯化钠55g、草酸钾40g、氯化银30g。

为铁和钢镀金的方法：将2g氯化金和20g氰化钾溶于200g水中。另外准备饱和的亚铁氰化钾溶液。将两种溶液搅拌，加入少量水稀释，即得镀金溶液。

Iron Technique Overview

铁艺工艺概述

To remove the rusts, there are three diverse techniques, according to the conditions of objects. The preservation of pieces which are seriously corroded and completely covered with rusts (generally archaeological objects) is always delegated to some specialists, who mostly apply a procedure called "stabilization".

If the objects are just partially rusted or covered with unsightly traces of paint, people will use chemical method: the workpiece is cleaned with ethyl trichloride or with another degreasing, and then left for some necessary time in a solution of phosphoric acid in which inhibitor is added. The rust is then removed mechanically with a light wire brush which is used under running water. This process need be repeated, changing the solution and cleaning tools until the last trace of rust or paint disappears. The clean workpiece then is immersed in a solution of 3%-5% phosphorus and finally dried well with a cloth and then with hot air.

To ensure the objects will not be attacked by rust in short, it is still immersed in a solution of silicon or covered with a transparent varnish or one of special types of wax products.

And please pay attention that the methods do not give a shiny surface to the iron, which is contrary to the natural quality of the metal. The pieces which are too large to be immersed in

the solution, should be cleaned with a paste which contains phosphoric acid.

In the case of tempered iron (for example the springs for locks) or iron combined with other metals, the process described above for removing the rust is contra-indicated. A technique called "tannin" should be adopted: the objects should be degreased and then cleaned with a horsehair brush or metal impregnated with a solution of tannin, distilled water and alcohol, which removes the rust, leaving a black surface for oxidation. If a smooth or polished iron surface has only patches of rusts, they can be removed by refined petrol or methylcyclohexanol. The object should be polished with a felt cloth or flannel and degreased and treated in the usual way for storage. The collector can keep the iron in an environment of normal temperature, and it is especially important that the relative humidity of the environment shouldn't fall below 55%.

将待镀物品放入溶液，镀金的程度取决于浸渍的时间；浸渍后，再用硫酸酸化漂洗，并用布擦拭干净。

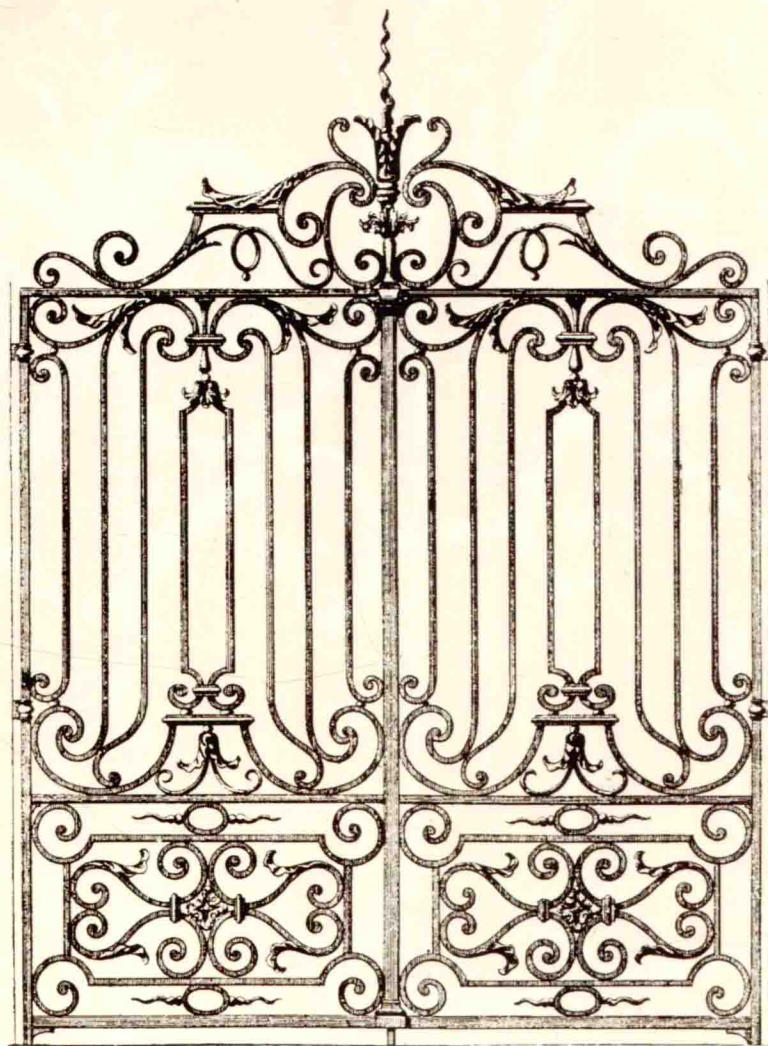
根据金属的特性，有三种不同的方法可以除去铁锈。一些腐蚀严重、被铁锈覆盖的物品（一般是出土文物）的保存总是委托给专家完成，他们通常会采用所谓的“稳定法”处理。

如果工件只是被部分锈蚀或沾上一些油漆，可以用一种化学方法清理：用三氯化乙基或用另一种脱脂清洗工件后，放置在加入抑制剂的磷酸溶液中，浸泡一定时间。然后在流动的水中，用软毛刷将铁锈刷除。将清洁后的工件再次浸入含有3%-5%磷的溶液中，再用干布擦拭，最后用热空气烘干。

为了确保工件短时间内不被再次锈蚀，继续将它浸入硅溶液中，或在其表面涂上一层透明的清漆或某些特殊的蜡。

但是要注意的是这种方法并不能抛光铁的表面，虽然这与金属的自然特性相悖。工件过大，无法浸入溶液的，可以用含磷的膏状物擦拭。

对于一些淬火的铁（例如锁具的弹簧）或混入其他金属的铁，上述除锈方法是禁忌。应该采用一种被称为“单宁”的除锈方法：将工件脱脂，然后用马鬃刷或浸有单宁酸溶液、蒸馏水和乙醇的金属刷清洗，在黑色表面进行氧化，铁锈被清除。如果铁块表面光滑抛光，只是有若干锈斑，可以用汽油或甲基环己醇去除铁锈。然后用布或法兰绒布抛光，再用常用的方法脱脂处理。铁可以在常温中保存，尤其重要的是，空气的湿度不得低于55%。



Grill gates

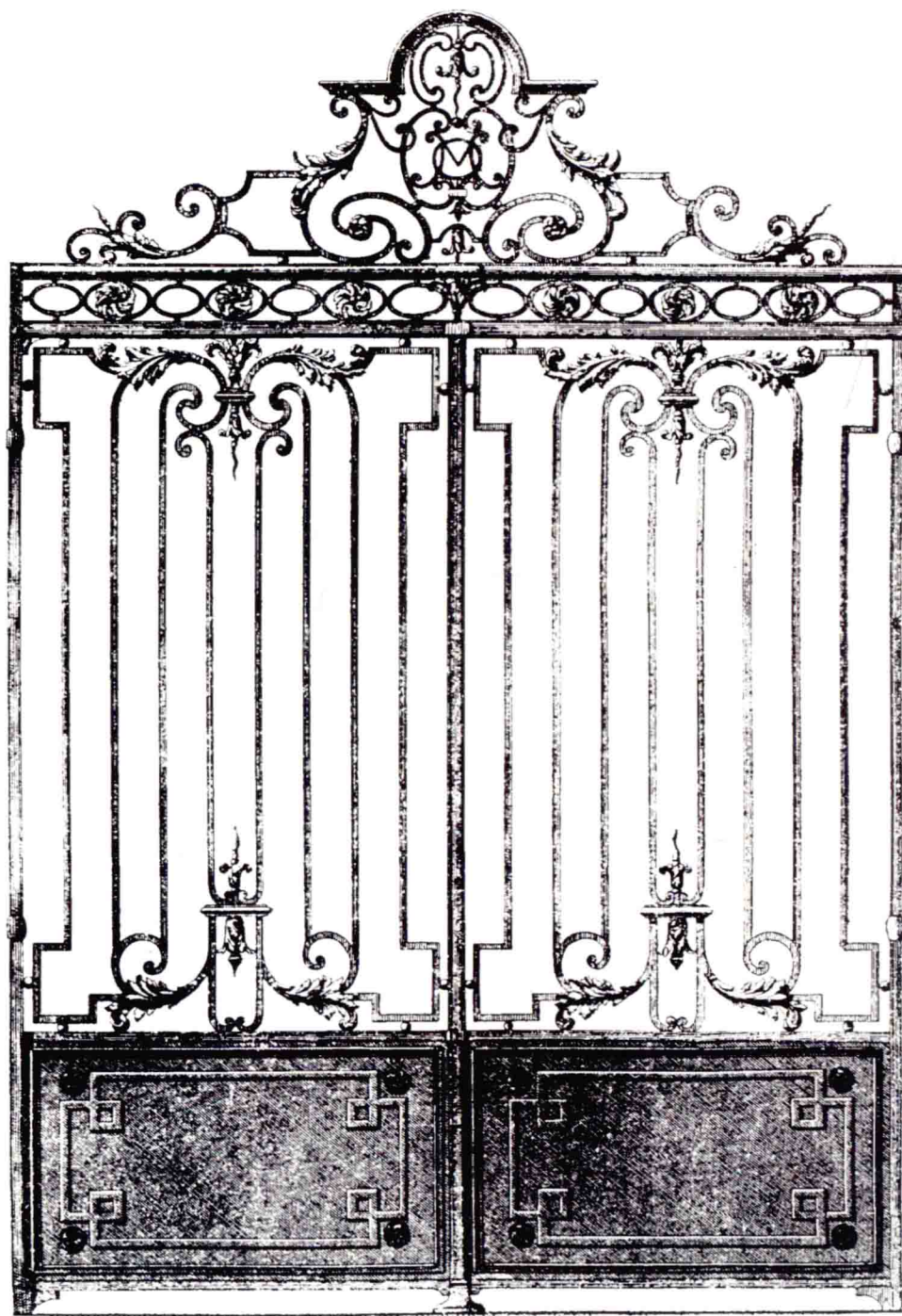
铁艺大门



Production: Italian Industry Iron Art Sp A

Grill gate

铁艺大门

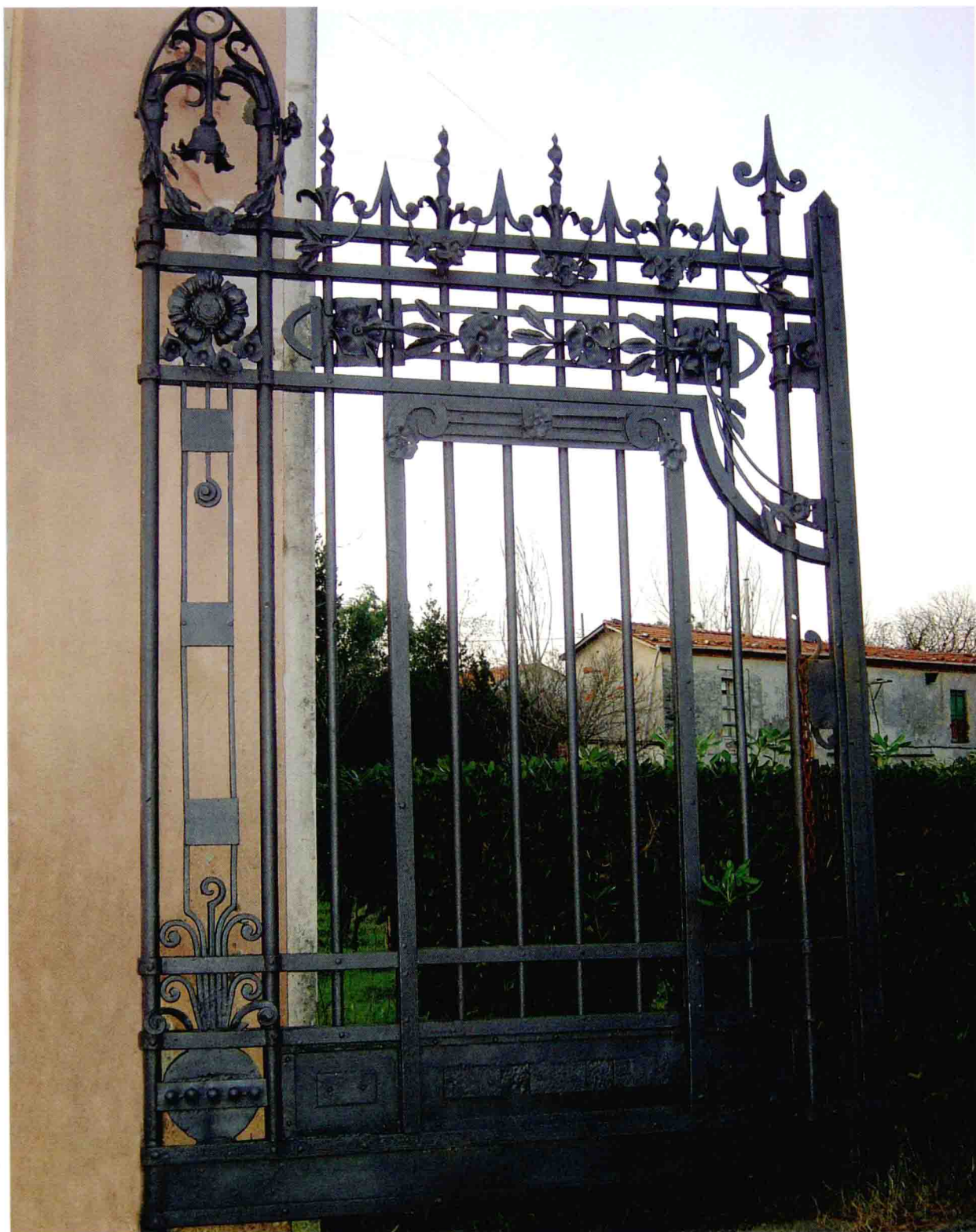


Grill gate of the 1980s' style

20世纪80年代风格的铁艺大门

Grill gate

铁艺大门



Grill gate at the entrance of Baracchini Villa, in Sarzana, La Spezia, Italy.

位于意大利拉斯佩齐亚省萨尔扎纳市的巴拉克拉别墅的入口处的铁艺大门

Grill gate

铁艺大门



Above and following are details of grill gate of Barachini Villa

以上及以下为巴拉克拉别墅铁艺大门细节