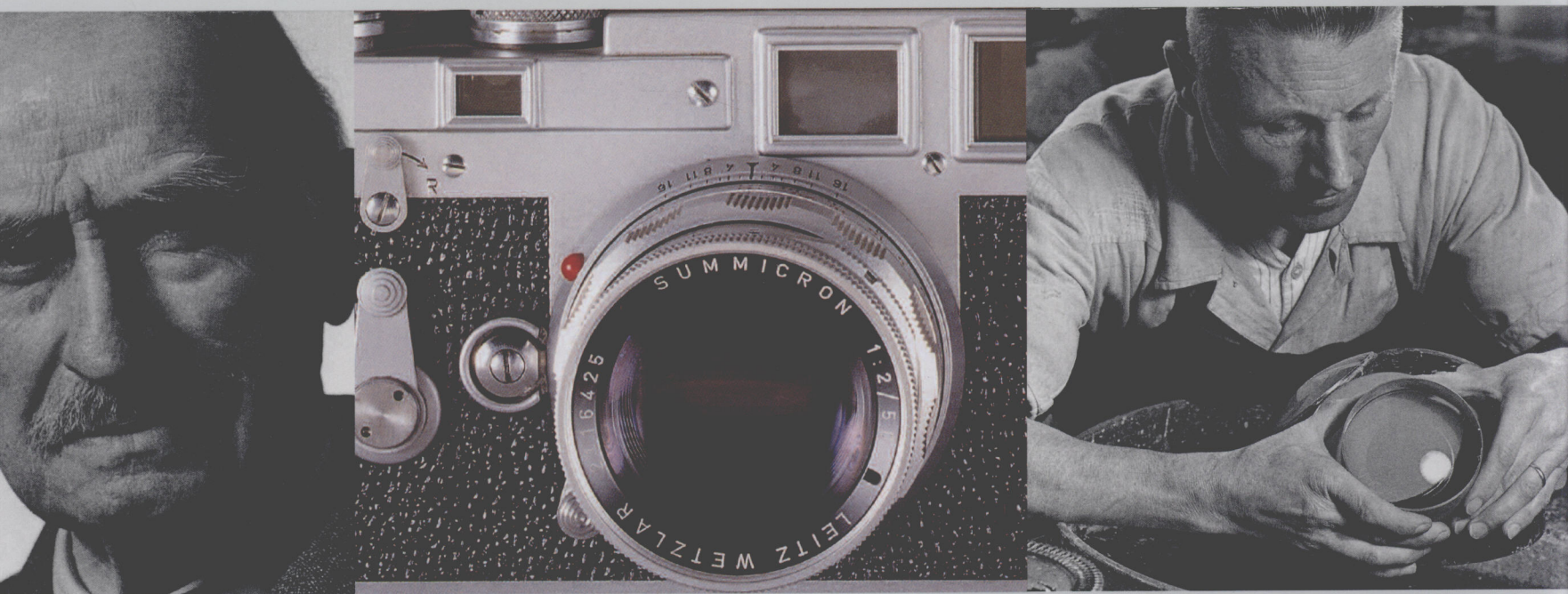


君特 · 奥斯特洛 著  
李 晓 译

# 经典徕卡：M相机五十年 50 YEARS LEICA M



君特 · 奥斯特洛 著  
李 晓 译

# 经典徕卡：M相机五十年

## 50 YEARS LEICA M



中国摄影出版社



---

图书在版编目 ( C I P ) 数据

经典徕卡: M相机五十年 / (德) 奥斯特洛著; 李晓译. —北京: 中国摄影出版社, 2008. 8

ISBN 978-7-80236-234-5

I. 经… II. ①奥…②李… III. 摄影机—历史—德国  
IV. TB852. 1

中国版本图书馆CIP数据核字 (2008) 第037682号

---

书 名: 经典徕卡: M相机五十年

出 版: 中国摄影出版社

地址: 北京东单红星胡同61号 邮编: 100005

发行部: 010-65136125 65280977

网址: [www.cpgph.com](http://www.cpgph.com)

邮箱: [sywsgs@cpgh.com](mailto:sywsgs@cpgh.com)

策 划: 北京时尚博闻图书有限公司

网 址: [www.book.trendsmag.com](http://www.book.trendsmag.com)

责任编辑: 周 彧

印 刷: 北京图文天地制版印刷有限公司

开 本: 889mm×1194mm 1/12

印 张: 18.5

版 次: 2008年5月第1版

印 次: 2008年5月第1次印刷

印 数: 1—3000册

I S B N 978-7-80236-234-5

定 价: 298.00元

版权所有 侵权必究



# 前 言

安德鲁斯·考夫曼，  
徕卡相机公司执行总裁



2004年徕卡M系统相机迎来了她的50岁生日。纵观历史，仅有屈指可数的品牌在如此漫长的岁月里，恒久地保持产品与设计的一致性。50多年来，徕卡的设计师不断提升各项功能，并融入最新技术，但从未放弃摄影师们所珍视的徕卡特质。特别是电子部件的微型化使得徕卡M6相机机身内测光或徕卡M7相机光圈优先成为可能。

作为亨利·卡蒂埃·布列松、艾利奥特·恩威特，威廉·克莱因等国际摄影大师手中的工具，徕卡M系列相机对现代摄影产生了举足轻重的影响。选择此款相机的摄影师都希望当他们深入到事件中心时丝毫不惊扰拍摄对象，敏锐地记录永恒的瞬间。徕卡M系列镜头在全开光圈时展现出她的独特魅力：卓越的锐度、极佳的反差、精细的解像力。徕卡M系统全部聚焦于最终结果：完美的影像。

日新月异数码技术开创了摄影新纪元。传感器和像素取代传统胶片捕捉影像，并将其记录在记忆体中。许多评论认为现代技术的发展将意味着徕卡M系列相机时代的结束。

然而徕卡M系列已步入数码化的时代。当徕卡M8相机首次在2006德国科隆展上亮相之际，事实胜于雄辩地证明了徕卡M系列无论在街头摄影师、专业摄影师、还是创意非凡的摄影爱好者手中，都获得了数码影像领域的顶级品质。传感器的发展结合像素优化的结构确保了无需牺牲影像品质，将先进数码技术与徕卡M机身经典设计有机融合。徕卡M8相机兼容自1954年以来生产的几乎所有M系列镜头和所有新镜头，徕卡M系统相机提供了未来50年的摄影工具。

功能强劲、魅力无限的徕卡M8相机浓缩了徕

卡100余年的光学精髓和完美的机械精度，汇聚现代工业技术、工艺之长，并且深谙如何传承徕卡王者风范和铸造传奇之道。

衷心祝愿本书带给你们无限的乐趣！

索姆斯，2008年5月

# Preface to updated print of “50 Years LEICA M”

from Dr. Andreas Kaufmann,  
CEO Leica Camera AG

In 2004 the Leica M celebrated its 50th Birthday. There are very few products whose production and design have remained unchanged over such a long period of time. For over 50 years technicians have been able to change functions and to integrate new technology without giving up the Leica M characteristics which are valued by photographers. Especially the miniaturization of electronic components has made it possible to integrate a light meter in the body of the LEICA M 6 or an automatic shutter priority in the LEICA M 7.

As a toll in the hands of many international photographers such as: Henri Cartier Bresson, Elliott Erwitt, William Klein, the Leica M influenced modern photo journalism. Those who choose to work with this camera system want their photographs to be sensitive and inconspicuous while being in the centre of action. The Leica M lenses show their unique strengths when used at full aperture: excellent sharpness, high contrast performance and a large resolution. In the case of the Leica M

everything concentrates on the end result: a perfect picture.

The breathtaking development of digital technology has given photography a new dimension. Instead of a roll of film, it is sensors and their pixels which are taking the pictures and recording them on memory cards. Many critics thought that this modern technology would mean the end of the Leica M.

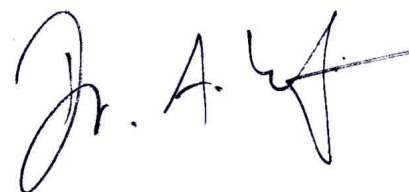
However, in the mean time the Leica M has become digital. When the LEICA M 8 had its world premier at the photokina 2006 in Cologne, it proved that the M-System has the highest performance in the digital world; in the hands of street photographers, professional photographers and ambitioned hobby photographers. The development of sensors with a refined pixel structure made it possible to integrate digital technology in the classic design of the Leica M body without sacrificing the high picture quality. Lens compatibility back to 1954,

as well as, all new lenses, the Leica M System offers a tool for the next 50 years.

Functional and attractive, the LEICA M 8 is a product with over 100 years of experience in optics and precision mechanics, as well as, modern production technology, craftsmanship and the know-how, that has made the Leica name world-renowned and coined a Myth.

I wish you lots of reading enjoyment with this book!

Solms, May 2008



# 徕卡 M 相机五十年

## 1954-2004

在我们的许多生活领域中，人们习惯于提供并使用长期以来形式一成不变或是几乎不变的产品。小到办公室里常用的曲别针，大到一些名牌产品。简单举几个例子，比如万宝龙的自来水笔、可口可乐独一无二的小玻璃瓶、里维斯“501”蓝色牛仔、KitchenAid的电动搅拌机。

但是既然任何产品都能降低生产成本（当然质量会差一点），那么总是有人尝试着用其他产品去代替这些产品。但至今为止，这些原型产品的功能和构造都完美地满足了使用者的所有

要求。它们的质量无可挑剔；它们的风格也独一无二。

2004年庆祝五十岁生日的徕卡M相机亦是如此。但不同之处在于，它的各个部件的复杂性——机械构造，光学系统和电子系统——远远超出上面所提到的产品。除了徕卡M相机，全世界没有一件产品能拥有如此高超的技术，并且其生产和设计几乎保持五十年不变。由于徕卡M相机不断优化所有功能并增添新技术，它至今都能保持其使用者所珍视的特性，魅力丝毫不减当年。

## 50 years Leica M 1954 - 2004

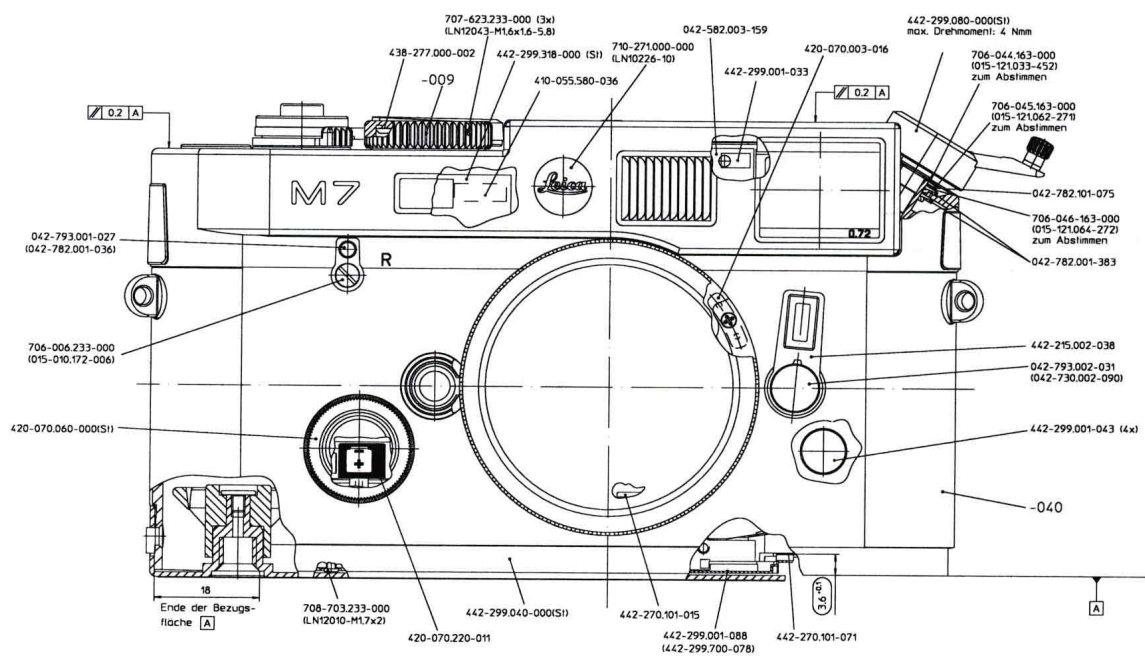
In many facets of our lives we have become accustomed to seeing or using products that have been available in the same or nearly the same form for many decades. The prosaic paper clip made of bent wire is just as much a part of this phenomenon as is the Meisterstück fountain pen by Montblanc, the unique glass bottle of Coca Cola, Levi's 501 blue jeans and the electric blender by KitchenAid – to mention but a few.

But since there is nothing that could not be produced a little more cheaply

(and, of course, also with less quality), there have always been attempts to replace such products with different ones. But to this day, the functions and the design of the originals continue to deliver the performance that we have come to expect of them in regular use. Their quality is impeccable; their style is unmistakable.

The very same attributes also apply to the Leica M camera, which celebrates its 50th anniversary in 2004. The difference, however, is that the complexity of its diverse components – mechanisms,

optics and electronics – is a great deal higher. Aside from the Leica M, there is no other product in the world with such a demanding technology whose production and design have remained almost unchanged for fifty years. Because its functions have been continuously optimized and sensibly complemented with new technologies, the Leica M has retained to this day the features that are so highly prized by its users, and it has lost none of its attraction.





# 目录

VIII	前言
	安德鲁斯·考夫曼，徕卡照相机公司执行总裁
X	徕卡M相机五十年
	1954-2004

## 徕卡M系列相机

2	钛制特别版本	徕卡 MD
	徕卡M系统五十年	
8	完美的技术	24 徕卡M系列相机家谱
	徕卡 MP	27 2004徕卡M系列相机品种
10	舒适的操作	28 十分明亮清晰的取景器
	徕卡 M7	36 十分安静且几乎无震动的快门
12	合理的电子系统	40 极其快速的过片
	徕卡 M6 TTL	44 徕卡M相机的机械结构和光学组件
	徕卡 M6	46 徕卡M7相机的自动快门速度控制
	徕卡 M6J	50 徕卡M6相机的TTL测光
14	附加的取景框	54 未完成的徕卡M相机
	徕卡 M4-P	58 徕卡CL相机坚实的解决方案
	徕卡 M4-2	60 徕卡M5相机的选择性TTL测光
	徕卡 M4	66 联动的曝光表
16	不同的理念	70 通向徕卡M3相机的漫长道路
	徕卡 CL	78 绝对的经典：设计
	徕卡 M5	84 辛勤的奉献：完美解决每一细节
18	设计的典范	88 理想的变通：合理的配件
	徕卡 M1	
	徕卡 M2	
20	面向未来	
	徕卡 MP	
	徕卡 M3	
22	用于记录	
	徕卡 MD-2	
	徕卡 MDa	

徕卡M镜头

92 成功的关键：徕卡镜头  
优秀的光学系统  
精准的技术  
严格的质量保证

98 徕卡M镜头品种

100 光学设计者的敌人：像差  
色差  
单色像差  
其他的“光学误差”  
como像差控制

110 惊人的复消色差校正

116 精确的过程：镜片的制造

120 研磨、抛光或是精确模压：非球面镜片

126 镜头加工：表面镀膜

130 源自玻璃和金属：镜头的制造

134 令人着迷：近摄和远摄附件

142 革新性：镜头生产的优化

徕卡和徕兹企业

154 徕卡相机团队

162 葡萄牙徕卡

166 恩斯特·徕兹（加拿大）有限公司

176 徕兹时代

190 徕兹的四代企业家

194 徕兹——雇员的伙伴和领域的推动者

204 徕卡相机的诞生

公众眼中的徕卡和徕兹

216 杰出的徕卡

222 大众眼中的徕卡和徕兹

228 第一手信息：为雇员和客户提供信息

232 关于小的和大的礼物

236 荣誉性的徕卡相机

242 徕卡就是榜样：文化项目

252 通往更好的照片之路

258 查阅：徕卡文献

266 徕卡：收藏家及历史学家的一个广阔领域

272 回顾  
克努特·科恩-徕兹博士

附录

274 重要地址

278 鸣谢

279 图片及来源许可

# Table of contents

---

IX	<b>Preface</b> <i>from Dr. Andreas Kaufmann, CEO Leica Camera AG</i>
XI	<b>50 Years Leica M</b> <b>1954 - 2004</b>

---

## LEICA M cameras

---

2	<b>The special series in titanium</b> 50 Years Leica M System	24	The Leica M family tree
8	<b>Mechanical perfection</b> Leica MP	27	The 2004 line of Leica M products
10	<b>Great ease of operation</b> Leica M7	28	Exceptionally bright and brilliant: the viewfinder
12	<b>Sensible electronics</b> Leica M6 TTL Leica M6 Leica M6J	36	Exceptionally quiet and practically vibration-free: the shutter
14	<b>Additional bright-line frames</b> Leica M4-P Leica M4-2 Leica M4	40	Exceptionally rapid: the film advance
16	<b>Other concepts</b> Leica CL Leica M5	44	The mechanical and optical components of a Leica M
18	<b>Exemplary design</b> Leica M1 Leica M2	46	Automatic shutter speed control on the Leica M7
20	<b>Setting trends for the future</b> Leica MP Leica M3	50	TTL exposure metering on the Leica M6 models
22	<b>For documentation</b> Leica MD-2 Leica MDa Leica MD	54	The unfinished Leica M
		58	Compact solution with the Leica CL
		60	Selective TTL exposure metering on the Leica M5
		66	Coupled exposure meters
		70	The long road to the Leica M3
		78	Simply classic: the design
		84	Painstaking dedication: perfect solutions for every detail
		88	For optimal versatility: sensible accessories

## **LEICA M lenses**

---

- 92 The key to success: Leica lenses**
  - Excellent optics
  - Precise mechanisms
  - Stringent quality assurance
- 98 The 2004 line of Leica M lenses**
- 100 Optical designer's adversaries: the aberrations**
  - Chromatic aberrations
  - Monochromatic aberrations
  - Other "optical errors"
  - COMO suppresses aberrations
- 110 Extraordinary: the apochromatic correction**
- 116 An exacting process: the fabrication of lens elements**
- 120 Ground and polished or precisely molded blanks: the aspheres**
- 126 Enhancing the lenses: surface coatings**
- 130 Of glass and metal: the lens is created**
- 134 Fascinating: accessories for near and distant pictures**
- 142 Innovative: the optimization of lens production**

## **The Leica and Leitz enterprises**

---

- 154 The Leica Camera Group**
- 162 Leica Portugal**
- 166 Ernst Leitz (Canada) Ltd.**
- 176 The Leitz Era**
- 190 The four generations of Leitz entrepreneurs**
- 194 Leitz – partner of its employees and promoter of the region**
- 204 How the Leica came to be**

## **Leica and Leitz in the public eye**

---

- 216 The phenomenal Leica**
- 222 The Leica in public view**
- 228 Straight from the source:**
  - Information for employees and customers
- 232 About small and large courtesies**
- 236 The honorary Leicas**
- 242 The Leica as an icon: cultural projects**
- 252 The path to better pictures**
- 258 Look it up: Leica literature**
- 266 The Leica: a broad field for collectors and historians**
  
- 273 Looking back**
  - by Dr. Knut Kühn-Leitz*

## **Appendices**

---

- 276 Important addresses**
- 278 Acknowledgments**
- 279 Photo and source credits**



徕卡 M 相机  
LEICA M cameras

## 钛制特别版本

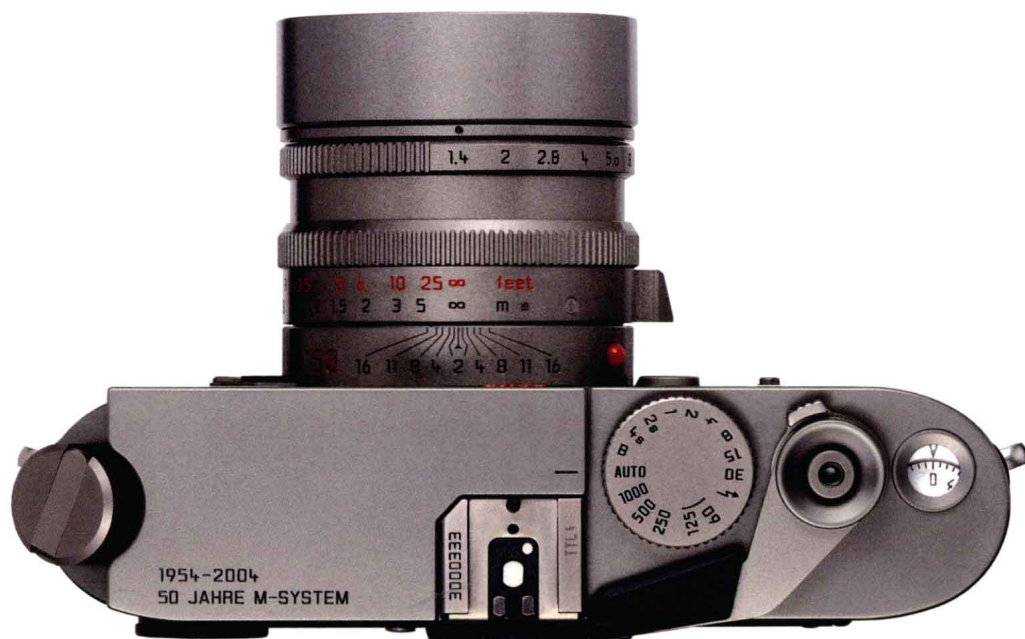
## The special series in titanium

### 徕卡M系统五十年 2004

希腊神话中，被宙斯所推翻的巨神族成员之一叫做泰坦。通常我们用这个词来形容那些拥有权力或者做出杰出贡献的人。土星的一个卫星也是以它来命名的。这三种事物都被认为是具有男性气质的，因此它们都被称为泰坦。

1791年，W·格雷戈尔发现了钛这一化学元素。四年后在为其命名时，M·H·克拉普罗特从希腊神话中得到灵感，将之命名为钛，希腊语叫做泰坦。它的化学符号是Ti，原子数为22，原子量为47.90，熔点1800摄氏度（华氏温度3272度）。在科学和日常用语中，钛的词性为中性。

为了庆祝徕卡M系统诞生50周年，徕卡相机有限公司制造出一款徕卡M7相机的特别版本，它的3个镜头所有的金属部分全部是由钛金属所制成。这种高科技物质具有和铁一样的坚硬度，而重量比铁要轻45%，稳定性比铝高一倍。它具有很强的防腐性和耐冲击性。在航空和太空飞行中，如果要求同时具有较轻的重量和较高的稳定性，并且不受温度变化的影响，那么通常会使用钛这种物质。一台使用钛制造的徕卡M7相机能减少大约80克的重量（将近3盎司），这相当于一台相机重量的13%还多。







## 50 Years Leica M System 1954 – 2004

Greek mythology tells us that one of the primeval deities that was overthrown by Zeus was the sun-god Titan, offspring of Uranus (Heaven) and Gaea (Earth). In today's colloquial language, a Titan is someone who has great powers or who performs monumental tasks. Titan is also the name of one of the moons of the ringed planet Saturn. All three are presumed to be masculine.

While searching for a name for a new chemical element that was discovered by the Rev. W. Gregor in England in 1791, M. H. Klaproth in Berlin, Germany, four years later was inspired by the aforementioned Greek legend and called the new element *titanium* (or titan in Greek). Chemical symbol: Ti, atomic number: 22, atomic weight: 47.90, melting point: 1800°C (3272°F). In scientific and common language, its gender is neutral.

To celebrate the 50th anniversary of the Leica M System, Leica Camera AG presents a special series of Leica M7 cameras and three of its lenses with all their metal parts made of solid titanium. This high-tech material is as hard as iron, yet it is 45% lighter than iron and twice as stable as aluminum. It is considered to be extraordinarily corrosion- as well as impact-resistant. In aeronautics and in space travel, for example, titanium is used when low weight and high stability are of primary importance in addition to good imperviousness to great fluctuations in temperatures. The weight reduction on a Leica M7 brought about by the use of titanium amounts to approximately 80 grams (nearly 3 ounces). That is more than 13%!



拥有Summilux-M 1:1.4/50mm ASPH.镜头的徕卡M7特别版，其表面积约三分之一由钛制成。

**A total of thirty-three external parts for the special series of the Leica M7 with the Summilux-M 1:1.4/50 mm ASPH. will be made of titanium.**



这种金属的特殊性质能够满足高质量的相机结构的需求，但是在生产过程中也会造成不成比例的大量浪费。与加工黄铜和铝相比，加工钛的成本高出5倍。由于所有部分都由整块钛金属铣成，因此为了避免在生产过程中相机部件产生延展，就需要采取一些特殊的预防措施。即便是接下来必要的由机器完成的装饰步骤，比如表面的磨平和抛光，同样耗时惊人。最后一步是无痕PVD涂层。PVD是物理蒸镀的缩写，这里指的是在真空中涂上二氧化硅薄层，即硅玻璃。这层非常便于清洁的物质可使机身钛制表面产生一种迷人的丝绸般的光泽，并可以防止指纹留在机身上。

用植物硝过的油滑的黑色皮革覆盖在机身的外部，它与钛制部分非常相配。植物上色的皮子给人以舒适的手感，经常使用还能产生

高质量皮革的光泽，这一点也是行家们十分欣赏的。

作为一款特别版本，钛制的徕卡M7只限量生产500台，并与同样由钛金属制造的Summilux-M 1:1.4/50mm ASPH.镜头配套出售。这种镜头是一款全新研发的大口径标准镜头。相比于以前的版本，使用这种非球面镜片能进一步提高成像质量。作为第一款采用浮动镜片的徕卡M镜头：在对焦时，后组镜片改变它与其他的光学系统的相对距离，从而在近摄时也能达到非常高的成像质量。之所以能够在整个像场内都表现出很高的成像质量不仅仅要归功于在Summilux-M 1:1.4/50mm ASPH.镜头中所使用的高折射率光学镜片，还归功于两种具有特殊的局部色散作用的镜片。其中一种是由前徕卡镜头实验室所研发的。

徕卡M7的特别版本包括以下3款镜头，它们分别为徕卡50年的历史作出了与众不同的贡献：

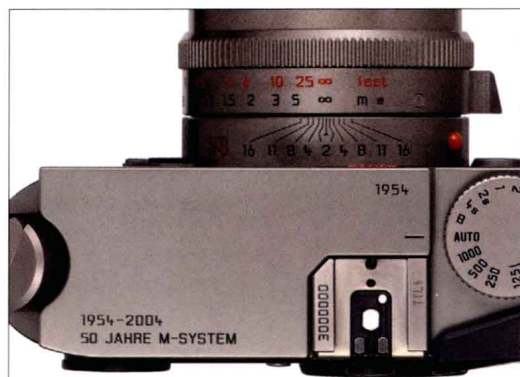
Summicron-M 1:2/28mm ASPH.镜头

Summilux-M 1:1.4/50mm ASPH.镜头

Apo-Summicron-M 1:2/90mm ASPH.镜头

The special series of 50 Leica M7 cameras, of which each one is dedicated to a different year of the fifty year history of Leica M cameras, will include three lenses: Summicron-M 1:2/28 mm ASPH., Summilux-M 1:1.4/50 mm ASPH. and Apo-Summicron-M 1:2/90 mm ASPH.





While these extraordinary material properties are also very desirable for use in high-grade camera construction, they are counterbalanced by disproportionately high production costs. The latter are approximately five times greater than the fabrication costs in brass or aluminum. Because all parts are milled from solid titanium, special precautions have to be taken, for instance to prevent the formation of tensions while the part is being milled. Necessary subsequent decorative treatments performed by mechanical means, such as the grinding and polishing of surfaces, are time-consuming. The final step is an immaculate finish with a PVD coating. PVD stands for Physical Vapor Deposition, used here for the application of an exceedingly thin layer of silicon dioxide (SiO<sub>2</sub>), i.e., glass. This easy-to-clean layer lends the titanium surface a very appealing silky sheen that is impervious to fingerprints.

Harmonizing beautifully with the titanium is the vegetable-tanned, oiled saddle leather in black that is used for the camera body covering. The vegetable-dyed leather has an especially pleasant feel and frequent use of the camera gives it the patina that is prized by connoisseurs and that characterizes high-grade leathers.

The titanium Leica M7 is being presented as a special series with a limited edition of 500 cameras, in a set with the Summilux-M 1:1.4/50 mm ASPH. that is also made of titanium. This lens is a completely new design of this familiar high-speed standard lens. Compared to the preceding version, the use of an aspheric lens element brought about another significant increase in its

imaging performance. It is the very first Leica M lens equipped with a floating element: during focusing, the rear lens element varies its position relative to the rest of the optical system, thus achieving outstanding quality in the close-up range as well. In addition to the high-refraction optical glasses used in the Summilux-M 1:1.4/50 mm ASPH., two additional types of glass with anomalous partial dispersion are used to achieve a uniformly high imaging performance across the entire image area. One of these types of glass was developed by the erstwhile Leitz Glass Laboratory.

The titanium top covers of the special-edition Leica M7 cameras bear the engraving "1954 - 2004 50 Jahre Leica M System". The range of serial numbers from 3 000 051 to 3 000 550 has been reserved for this limited edition of cameras. The last three digits of these serial numbers will be matched by the last three digits of the serial numbers on the respective lenses. For example, if the camera has the serial number 3 000 371, its lens could have the serial number 3 971 371.

The special Leica M7 with the special Summilux-M 1:1.4/50 mm ASPH. will be supplied in a presentation case covered with black linen and lined with black silk. It will be accompanied by a Certificate of Authenticity, hand-signed by Chief Executive Officer Hanns-Peter Cohn and Director of Technology Ralf Coenen, as well as a copy of this book a special edition bound in black linen (matching the presentation case) with an embossed title.

在顶盖上印有此套相机的年份和机身号。从1945年的3.000.000到2004年的3.000.051。

特别套装内的3只镜头在通常标有镜头号的地方，显示了徕卡M型相机50年历史中的特殊年份以及镜头焦距，比如：54/28。

**The year and the serial number engraved on the top covers of the camera in these sets are paired starting with 1954 and 3 000 000 up to 2004 and 3 000 051.**

**In place of the usual serial number, the three lenses in each of the special sets will bear the combination of a specific year of the 50-year history of Leica M cameras and the focal length of the lens, for example: 54/28.**