Antique Greek sculpture was at all times polychrome. The sculptures were made of different materials, but their polychromy always lead to a homogenous aesthetical effect. An antique Greek clay figure would first of all be covered with a priming of white stucco, limestone sculptures with marble stucco, in order to create the illusion of a marble sculpture. Whereas abundant polychrome fragments and even intact paint layers are preserved not only on Greek terracottas (colour plate IX, fig. 1) but also on early Greek limestone sculpture, there are few preserved traces on the works of art in marble.

In the last years the polychrome paint layer of Greek marble sculptures has been extensively examined in a research project, largely financed by the „Deutsche Forschungsgemeinschaft“ using foremost scientific examination methods. With the help of technical photography, especially different shooting techniques in ultra-violet light, but also a special side-light technique many traces of earlier painting could be observed and documented. Chemical analysis of the pigments and binding agents as well as intensive microscopical analysis accompanied the documentation. For some of the figures it was possible to recover the almost complete form and polychromy of the paint layer. These findings led us to consider reconstructions of the sculptures using moulded stone copies.

The figure of the Archer on the West-pediment of the Aphaia Temple at Aegina, the kneeling Archer, dating from the early 5th century BC and created in Greece wears an oriental costume: a type of pullover, close-fitting leggings and a jacket (colour plate IX, fig. 4).

The surface of the figures on both pediments of the Aphaia Temple show only sparse traces of red, green and blue colouring. The use of gold-leaf on the pediment warriors has also been established. At the time of the excavation of the Archer in 1811, the discoverer Charles Cockerell and the architect Jakob Ignaz Hittorff, who was very interested in questions concerning polychromy, believed to have discovered the coloured shadow (ghost) of a costume of scales. More information has not been passed down by the excavators, whose account on the polychromy was otherwise very keen and correct. Adolf Furtwängler, who did further excavation work and research at the site of the sanctuary in 1901, devoted a lot of attention to questions concerning the polychromy of the pediment sculptures. He ventured a complete reconstruction of both pediments from the west and east side of the building (colour plate IX, fig. 2). However, only the colours blue and red were used, because these were the only pigments which had at that time been discovered on the originals.

Due to the lack of any traces of colour on the Archer, he reconstructed this figure in close accordance to the so-called Persian Horseman (colour plate IX, fig. 5), a fragmented marble sculpture, which had been found on the Acropolis in Athens shortly before the turn of the century. This sculpture has an unusually well preserved paint layer (colour plate IX, fig. 1). The horseman wears the same type of close-fitting leggings and jacket. A lozenge-shaped ornament is painted on the leg-
古希腊雕塑彩绘—以埃吉亚那岛阿菲亚神庙西面三角板上的弓箭手为例

在裸露的紫外线下反光照片上（彩图 IX, 3），可以观察到一种风化，这是由于不同颜料的牢固性各不相同。在这一张风化图上可以看见覆盖全胸的图案：交错的菱形条，柳叶形的辫子，里面又布满小菱形。在雕像的脖子上，这一次通过侧光，可以看出极深的，受到造成的风化。这表明，脖子和上衣装饰的不同而明显有别。“毛衣”的袖子有菱形纹饰，隔一排的每个菱形中又布满小菱形。

最近的轰动的最后还是在弓箭手的夹克上的发现。夹克由鲜艳的带子作装饰。夹克的下一块面上画着成对的动物，它们对视，穿着束带的式样，使画面活跃。弓背下，一只鸟形的鱼半身清晰可辨。画家画在大理石表面上的羽茎。充满张力，艺术家再用金属雕刻刀把它们一丝不苟地刻出来。值得注意的是，最下面的，也是最小的羽茎仅有 1 至 2 毫米宽。这件雕刻在高地上至少 12 米高处的雕像竟如此精工细部，让人吃惊。基于不同的色面风化程度不同，这在侧光下和紫外线下均能识别，便可以明显地说出某些颜料鉴别出来，通过与彩绘痕迹较为明显的古风晚期的希腊雕塑进行比较，这种方法显得更有说服力。保存最好的，可以比较的例子之一，便是上面提到的雅典卫城的波德尼克斯，那里可以看到适用于公元前 500 年左右希腊雕塑的普遍风格化：色彩上，相对颜色的反差总是愈来愈弱。这使人们更易辨别精致的纹饰，而且颜料的选择也是有规律的：蓝色和绿色多为硫酸铜石青和孔雀石；红色是天然朱砂或红赭石，褐色和黄色色调当然是用赭石分解的。

在人造大理石模型进行复制时，我们考虑到了各自的生存情况和可能性（彩图 IX, 6）。因此，我们用的是与高加索使用的颜料相应的天然颜料。弓箭手的外衣的金色使用的金箔，男子的皮革系用赤铁矿作颜料画的。在此之前，萨摩斯岛的庞大少年雕像上也证实了这种颜料。6

注：
1. 参见英文文本注 1。
2. 参见英文文本注 2。
3. 参见英文文本注 3。
4. 参见英文文本注 4。
5. 参见英文文本注 5。
6. 参见英文文本注 6。