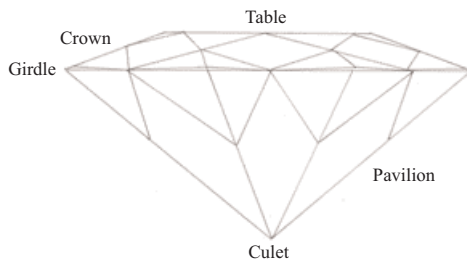


Part One of a Series

The History of Diamonds

The development of the round brilliant cut

by Val Baynton



Carat weight, clarity, cut and colour, known as the 'four Cs', are the principle factors that determine the value of a diamond. Here for simplicity we will take a look at the history and development of the round brilliant cut. This avoids getting into the complexities of the second meaning of cut which refer to the various shapes of diamonds. The style, proportions and quality of cut, including factors such as symmetry and polish affects the value of a diamond. A well cut stone refracts and reflects the maximum amount of light - it achieves total internal reflection, where all the light that enters the top of the diamond is bounced across the internal facets of the stone and back out again. The round brilliant cut makes the most of the diamond's naturally high dispersion, and is the most popular cut for many stones.

Rudimentary diamond cutting and polishing in Europe can be traced back to fourteenth century Venice but it wasn't until the fifteenth century that the craft evolved with faceted cuts creating diamonds with a little of the sparkle they're loved for today. The *table cut*, *point cut* and *rose cut* were the most common styles, but, during the seventeenth century the *brilliant cut* emerged. With more facets to crown and pavilion this new cut was popular with wearers because of the way it enabled diamonds to sparkle in candlelight. This old hand cut stone, now referred to as *old European* or *old mine cut*, is quite unlike the modern brilliant cut. They can have uneven outlines and a lack of symmetry because the shape of the rough stone was a major influence on how they could be cut. See **Fig 1**.

In the seventeenth and early eighteenth centuries diamonds were the preserve of the aristocracy, and the increasing scarcity of diamonds from India kept prices high. However, once diamonds were discovered in Brazil supplies increased and from the 1730s prices fell. By the end of the century, diamond cutters' reluctance to adopt the old mine cut, partly because it created waste, had also lessened with the availability of cheaper stones. At the same time cutting skills improved and many older diamonds, with table or point cuts, were re-cut in the new style.

As middle class incomes increased in the nineteenth century, they too, began to buy diamond jewellery, evidenced by the amount and different varieties of jewellery that was made. Taking just brooches, in the eighteenth and nineteenth centuries an elegant lady would not have considered her evening attire complete without a least one brooch, if not two, three or sometimes more, decorating the neckline and bodice of her gown. Over the nineteenth century specific brooch shapes were very fashionable at certain times.

Sunbursts, stars and crescents predominated in the first two decades, but ribbon bows and floral shapes were also popular. In these early brooches, diamonds are usually in closed settings, and brooches were often sewn on to dresses, pin mounts are frequently later additions. Maltese Cross brooches, also worn as pendants, were made in the early nineteenth century but were very popular in the 1830s and 40s. Sprays of flowers and leaves were also in vogue in these two decades. Sometimes larger brooches - stomachers or corsage ornaments - could be divided into smaller jewels and had drops 'en girandole' or 'en pampille'. Subsequently, these dangling, and delicate, ornaments were often removed and adapted to make earrings. Floral bouquets, ribbon and knot designs were also fashionable in the mid century. See **Fig 2** and **Fig 3**.

As the century progressed, insect, animal and designs inspired by nature as well as novelty brooches were worn by smart Victorian ladies and star designs returned as circular shaped brooches became the height of fashion. Crescent brooches revived and bar shaped designs were also introduced. Whilst these are trends in jewellery design, caution must be exercised when trying to date a brooch through shape alone as revivals regularly occurred, and classic older styles were always made and worn by the more traditional woman. See **Fig 4**.

Around the mid century, Brazilian diamonds became scarce and prices rose. The discovery of diamonds in South Africa in 1867, ensured plentiful supplies once more, which coincided with further developments in cutting diamonds, and the brilliant cut started to evolve into the cut that's known today. Key this time was mechanisation. First a steam driven bruting machine was developed by Henry Morse and Charles Field in the 1870s. This allowed a more symmetrical shape to be achieved and with it a more symmetrical distribution of the facets. The cutters disliked it initially because it was wasteful, but this was minimised by another technical development, the power saw, which allowed smaller stones to be fashioned from the rough cuts. Morse also recommended new angles between crown and pavilion to increase total reflection and the amount of brilliance. His work, in determining the best angles, was continued in the twentieth century by Frank Wade and Marcel Tolkowsky, resulting ultimately, in around 1920, in the modern brilliant cut, with a culet as a point, that's widely used today. Throughout the last 90 years, experimentation and debate about how to achieve the perfect cut has continued. For example recently Gabi Tolkowsky developed an 81 facet Eternal Cut for Asprey and Garrard.

Owning a jewellers loupe of 10x or 20x magnification is a good idea. It enables the user to check the conditions of stones and potentially, with practice their age. Old cut stones have deeper pavilions, shorter pavilion facets and a small table, the modern brilliant cut has a larger table facet and longer pavilion facets with a pointed culet. On old jewellery look out for old rose cut diamonds where the point is at the top.



Fig 1. Although featuring graduated diamonds in the rays, the irregular outline of these old cut diamonds can be clearly seen. 19thC, central diamond of approx 0.60ct. Halls, Shrewsbury. June 2007. HP £1,200. ABP £1412.



Fig 2. 19thC Maltese Cross - this could be worn either as a pendant or brooch. George Kidner, Lymington., Oct 11. HP £5,000. ABP £5,900.



Fig 3. Fine quality late Victorian diamond set gold shamrock brooch, detachable triple flowerheads, each petal set with a central brilliant cut diamond of approx 0.85cts, within a border of further brilliant cut stones, stems set with smaller brilliants, total weight in excess of 18cts, 3.5in, in Hunt & Roskell case. Gorrings, Lewes. Feb 2010. HP £17,000. ABP £19,996.



Fig 4. Victorian style brooch in the form of a dragonfly set with sapphire and diamonds, total diamond weight approx 2.25ct. Insects became popular from the 1860s onwards, but this brooch could be more recent. Wintertons Lichfield. Jan 2003. HP £920. ABP £1,082.