VENETIAN BEADS

Frank Hird

Interesting accounts of the manufacture of Venetian glass beads turn up in the most unlikely places. The one reproduced here was published in The Girl's Own Paper *for February 1, 1896 (Vol. 17, No. 840, pp. 292-294). In addition to presenting a decent description of the manufacture of drawn and blown beads during the latter part of the 19th century, Mr. Hird gives us details concerning the setting in which the beadmakers and bead stringers worked. Paint peels from the ceilings of the rooms where women make blown beads, and half-dressed men sweat in the heat from the glass furnaces. It brings the scene to life, something most other accounts fail to do. As the photographs that illustrate Hind's article lack captions, these have been added by the editor.*

There is an instinct in human nature, whether it be hypercivilised or whether it be still primitive, to which beads appeal as strongly as do gold and fine jewels. The Egyptians used them in lavish decoration of their dead, and modern travellers and traders in Africa are but imitating the example set thousands of years ago by the Phoenicians in using them as current coin in all dealings with the natives. Which of the ancient civilisations discovered the method of manufacturing beads has never been faithfully determined, but as the Egyptians were famous for their manufacture of glass, it is almost certain that the invention belongs to them, being copied by the adventurous Phoenicians. The Romans were great admirers of Egyptian glass, and during the reign of the Caesars the works at Alexandria were kept busily working to satisfy their love of glitter and personal adornment, it being the fixed idea of the ancients that the sand of this part of the Mediterranean shore was absolutely essential to glass-making. But nearer to Rome was a small island in the Adriatic, which was afterwards to become one of the greatest seats of the manufacture of beads, and which, to-day, has almost regained its old monopoly, lost for a period after the downfall of the Venetian Republic, of which it formed part.

It was in the thirteenth or fourteenth centuries–historians do not agree upon the exact date–that bead-making was established at Murano, and through all the years during which Venice exercised her almost imperial sway, the glass manufacture, on this ugly and dirty little island, was one of her glories. The Venetians, with that painstaking, and passion for the beautiful that are to be traced in all they have left behind them–in their palaces, their pictures, their jewels, their lace, in the mystic splendour of their churches–improved upon the models of the Egyptians, evolving colours and combinations of colours, of which they alone held the secret, with the consequence that beads rapidly became as beautiful as finely-cut jewels, and almost as valuable.

Steam, electricity, and the thousand-and-one inventions given by the nineteenth century to all manufactures, have been applied to the making of beads, and to-day the processes followed at Murano differ very little from those pursued in Birmingham, the chief seat of the industry in England. But there is a glamour of history at Murano that is lacking in the great Midland city, for hard by loom the campaniles and domes of Venice, with their bells tolling ceaselessly across the intervening lagoon.

Murano lies near the island cemetery of the Venetians, where the Palladian church of San Michele stands desolate, yet impressive, at one extremity. As the gondola sweeps past the high red walls of this island of the dead, a cloud of blackness, hanging immovable in the clear blue sky, shows where the glass-foundries, working night and day, belch forth a ceaseless stream of smoke from their tall chimneys.

A narrow canal flowing past some squalid houses, the upper storeys of which are raised on pillars of Istrian marble, once cream-coloured but now stained

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and grimed with the soot of centuries, leads to a broader canal, where the majority of the glass-manufactories are situated.

Some barges laden almost to the water's edge with grapes, whose rich purple bloom was in strange contrast to the murkiness of the Muranese sky and the squalor of the Muranese quays, were moving slowly through the sluggish water, as our gondola glided up to a small doorway set in a modern red-brick wall, behind which is the bead-factory. On the other side of the canal, old palaces, now turned into tenements for fisher-folk and beadmakers, frowned down upon this product of a manufacturing age, their carved stone balconies and decaying hatchments striking inharmonious notes with the electricity, the steam-power, and the human industry incessantly at work around them.

Through the little door we entered a flagged courtyard, from whence ran paths of beaten cinders leading to the various workshops, busy with the hum of countless wheels, and full of merry, chattering work-people.

Our guide first took us to a loft, where the colouring mixture as well as the component parts of the glass were mixed and made. Piles of sacks filled with sand were standing against the walls, whilst round tubs, arranged in two rows down the centre of the floor, contained the materials, that only required fusion by heat to turn them into glass. The colours were marvellous–greens, reds, and yellows of every imaginable shade, their iridescence being the closely-guarded secret of the manufacturer. Having vainly questioned the guide as to the cause of the golden lights in all Venetian glass, and being met and defeated by his sudden ignorance of French–which was rather remarkable, as he had become extremely voluble when he discovered that our Italian was a practically non-existent quantity–we were taken downstairs to a long narrow alley, divided into two equal halves, each one hundred and thirty feet in length, by immense furnaces in which the glass was being melted. The heat from these furnaces was intense, the molten glass standing in the clay tubs, that we had seen above, in their midst, seething and bubbling like liquid fire. It was almost dark in these narrow, ill-lighted alleys, but when the two swarthy glass-blowers thrust long iron bars into the quivering mass, a glow of colour, of red from the furnace and iridescent green from the glass, transformed the place for a moment into fairyland. The men, half-dressed, seemed to be transformed into golden creatures clothed in lurid green; the floor of hard-pressed cinders became crimson, flecked with strange shadows, as the blowers twisted their tubes in the shining mixture. After slowly turning their tubes round and round in the liquid glass they suddenly withdrew them, the molten matter at the end looking like honey upon a spoon. With great skill they manipulated the tubes between their fingers, so that the glass did not fall. When it was sufficiently cool, they rolled it gently on an iron stand, backwards and forwards, until it was completely round and in the shape of a hollow bulb. This was opened by the insertion of a piece of iron, and the two men placing the two bulbs together whilst they were still hot, they became amalgamated into one in a few moments.

It was at this point that the great interest of bead-manufacture came into play. The two men were standing, each with his tube in his hand, joined to that of his fellow by the soft green glass. Suddenly both ran swiftly in opposite directions down the narrow alleys, the glass stretching out behind them in an ever thinning line, until when the extremities were reached it lay along the ground in one piece, two hundred and sixty feet in length, the centre being of the same thickness as the two ends, and the hole running through the centre also being of the same diameter from end to end. Every six feet there were pieces of metal upon which the glass rested; when it had become perfectly hard and brittle, it was cut at each of these resting-places, and taken away to the next department in trolleys running upon wooden wheels. Here the six-foot lengths were handed over to girls, working at a long row of vibrating cutting-machines on one side of the room. The operator put several of the glass rods into an iron trough slightly raised at one end, and closed at the other by a knife of fine steel and exceptional sharpness. Arranging the rods evenly, she pressed them slightly under the knife with her right hand, then touching a lever with her left, the knife descended, and a shower of beads fell into the waiting sack beneath. The girls worked with incredible swiftness, and from every machine a ceaseless stream of beads were falling, the colour-effect being magical. This was heightened by the picturesque dresses of the workers themselves. On the other side of the room men were

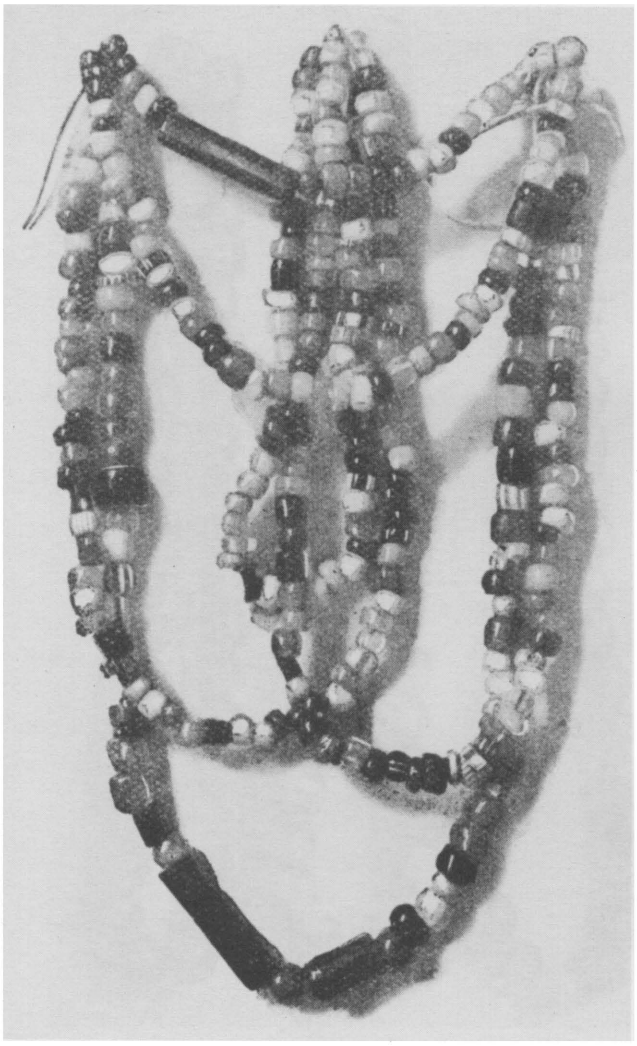

Figure 1. Tubular and globular to barrel-shaped glass beads made from segments of glass tubing.

busily at work sifting the beads into various sizes, as it is absolutely impossible for the girls to get the rods under the knife in equal lengths at every time of cutting; nor is this necessary. After being sifted, the beads are shaken with bran or sawdust in a machine which removes all dirt and dulness from the glass.

It is in this manner that the ordinary glass beads with square edges are made, but the round bead with smooth edges goes through another process.

After the beads were taken from the guillotine they were thrown into an iron drum containing wet sand, and were shaken until all the centres of the beads were filled. The drum was then placed in a furnace and turned rapidly round several times; on its being opened, to our surprise the beads were hard and round. It was explained that the glass being softened by the heat was rounded by the motion of the drum, the sand preventing their individual centres closing up, or the beads sticking together. As in the case of the ordinary beads, the round ones were then cleaned by being shaken in bran in an irritating machine which jumped backwards and forwards along a rail. The old method was to put the beads and sawdust in a sack and shake them thoroughly together, but the machine has entirely superseded this, and the effect is certainly incomparably better.

The whole process seems very simple, but its effect upon the visitor is difficult to describe; for the marvellous and varied colouring of the glass is most bewildering; and the cutting-room with its unceasing stream of falling beads glittering in the sunshine with all the hues of the rainbow, must be seen to be appreciated and understood.

One more department remained when we had examined the sifting machines–they are worked upon much the same principle as the winnowing machine used by an English farmer to separate the corn from the straw in place of the flail–and that was the room in which the beads were threaded.

The majority of this work is done away from the factory, as only a comparatively small portion of the beads are threaded before being sent to the buyer. At every house-door in Murano, women, young and old,

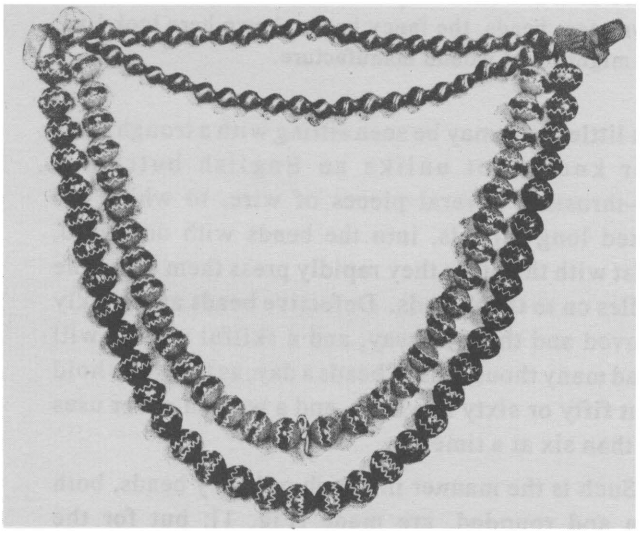

Figure 2. Necklaces of possible blown-glass beads.

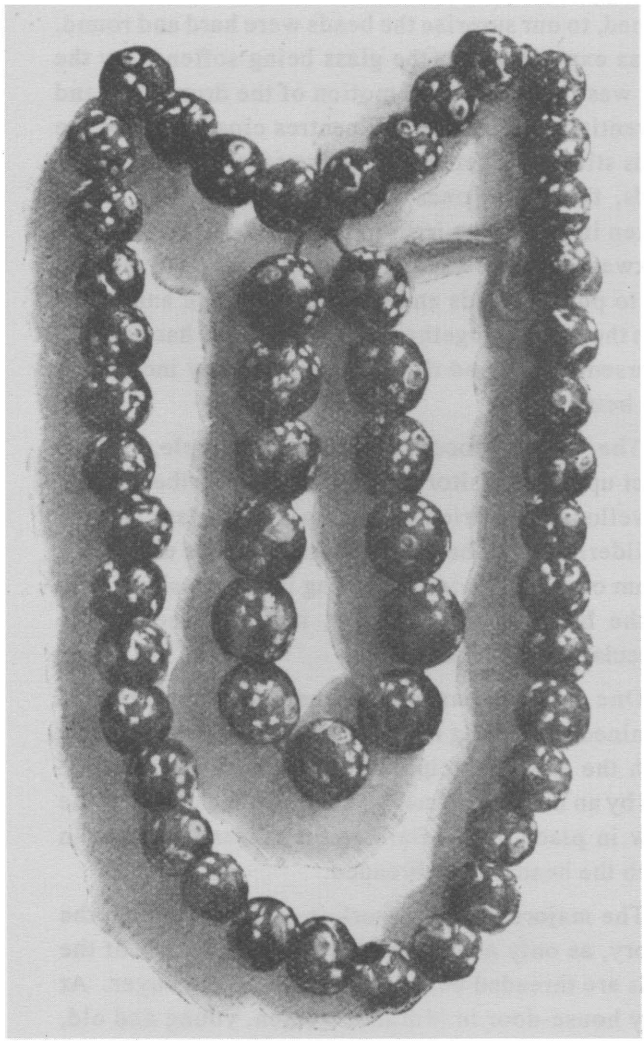

Figure 3. While Hird only describes the manufacture of blown glass beads, the fancy beads shown here look like they might be of wound manufacture.

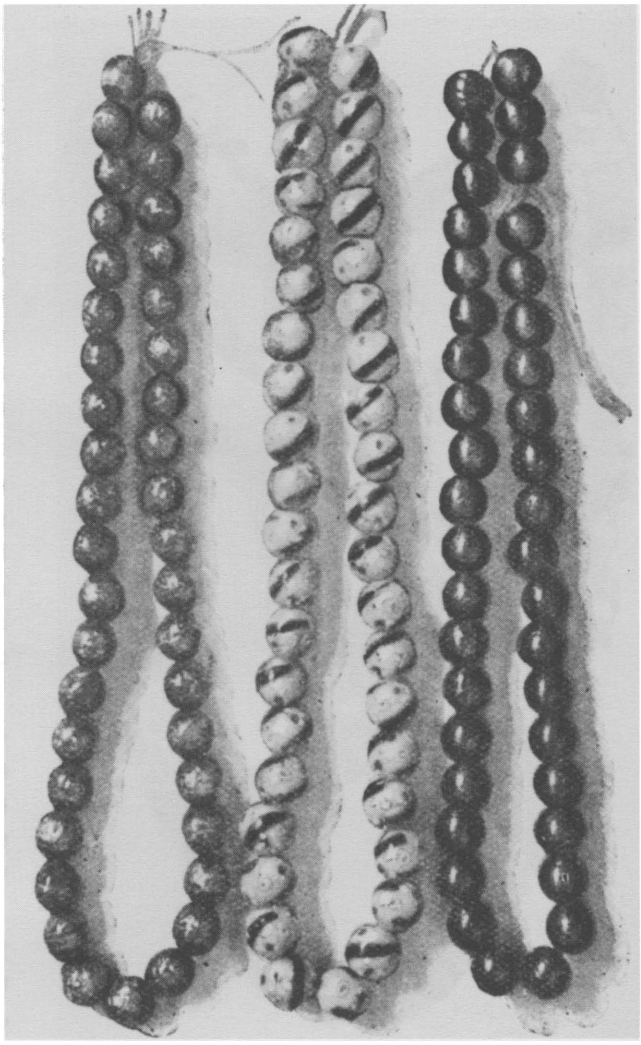

Figure 4. Several strands of glass beads that look like they might be wound as well.

even little girls, may be seen sitting with a trough upon their knees–not unlike an English butcher's tray–thrusting several pieces of wire, to which are affixed long threads, into the beads with one hand, whilst with the other they rapidly press them down the needles on to the threads. Defective beads are quickly removed and thrown away, and a skilful worker will thread many thousands of beads a day, as the wires hold about fifty or sixty at a time, and a woman never uses less than six at a time.

Such is the manner in which ordinary beads, both plain and rounded, are made [Fig. 1]; but for the manufacture of the real Venetian beads, such as are shown in the illustrations [Figs. 2-4], it was necessary to return to the City of Canals, where that branch is chiefly carried on.

Our gondola, after leaving the cemetery and crossing the intervening stretch of lagoon, entered one of the canals in the back part of the city, and after many twistings and turnings through apparently impassable waterways, we found ourselves under the Bridge of Sighs; a moment later we were in the Grand Canal, dashing through the limpid water towards the railway station, to the accompaniment of unintelligible cries and much gesticulation on the part of our gondolier to others of his craft.

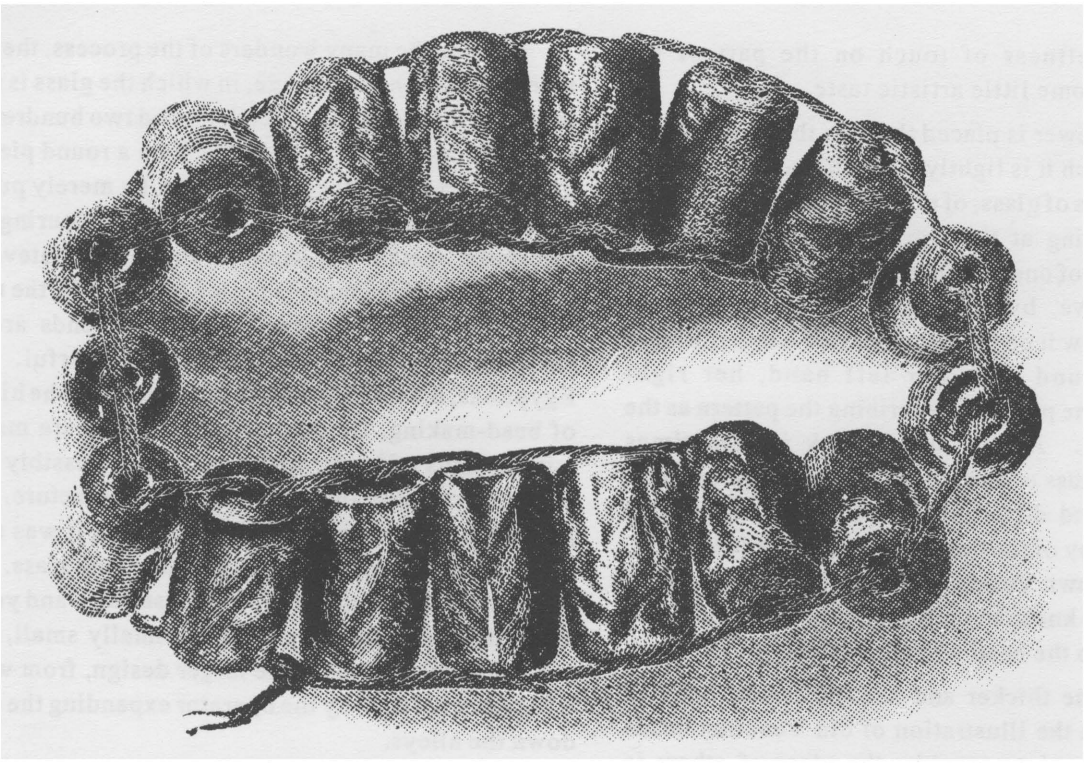

Figure 5. What appears to be a bracelet, possibly from Africa, composed of wound cylindrical beads of Venetian origin.

The manufacture the larger beads does not require the space nor the number of work-people necessary to the industry at Murano, the actual making being carried on in one room in an old palace on a side canal beyond the Rialto.

It was very strange to see six women seated at a bench, surrounded with the most modern appliances, in a vast room with frescoes of the sixteenth and seventeenth centuries peeling from the damp and neglected walls and ceiling, whilst rats and mice had eaten large holes between the carved walnut dado and the marble floor. But these children of Venice are too accustomed to the atmosphere of decayed magnificence, in which they are born and reared, to pay the faintest attention to the blotched Cupids on the walls, or perhaps even to note that the frescoed lady on the ceiling, immediately over their heads, was holding a string of beads in her hand, identically similar in design and size to those which they themselves were making with such skill and laborious care. The artist who painted the lady in her frescoed bower, sitting at a table heaped with fruits in golden bowls, and toying with a string of gilded beads, is forgotten, and his work falls daily in large flakes upon the bead-makers below; but the facsimile of the beads which he copied so faithfully, are still made by them in the City of Waters and Palaces.

These women sat at some distance from each other, each in front of a tiny gas jet, that burnt immediately over a raised piece of iron, a screen of tin protecting their faces. Taking a small rod of glass similar to one of those which we had seen carried from the smelting alley to the cutting-room at Murano, the operator held it a few seconds in the gas-flame picking off the heated end with her blower. Putting the other end of the blower in her mouth and keeping the piece of molten glass near the gas, she began to blow very gently. Slowly the piece of glass grew rounder and rounder, until at length it took the shape of a large hollow bead. Then it was put aside, and another was made with equal rapidity. If plain beads are needed, the operation is complete, but the majority of these large hollow glass ones are marked with elaborate patterns made of another coloured glass, and these are made in the following manner, a manner which necessitates not only great technical

ability and deftness of touch on the part of the operator, but some little artistic taste.

An iron skewer is placed through the centre of the bead, with which it is lightly rolled up and down a pad of felt. The rods of glass, of the colours required for the pattern, are lying at the worker's side, and having taken a portion of one on to the end of her blow-pipe, as described above, by heating it in the gas-jet, she proceeds to blow it on to the completed bead, rolling it round and round with her left hand, her right manipulating the pipe and describing the pattern as the bead revolves. As the super-work is sometimes composed of glass of as many as six different colours, the delicacy and difficulty of the work can be well imagined. Many of the beads are made of gilded glass, or the well-known Venetian evanturine [sic], studded with small blue knobs in imitation of turquoises. These are blown on to the bead when it is completed.

Some of the thicker and heavier beads, such as those shown in the illustration of old Venetian beads [Fig. 5], are run into moulds; the glass of others is grooved in such a manner that the extra pieces super-imposed sink to the same level as the rest of the bead; there are, in short, such an infinite variety that it is only possible to indicate the general method of production.

Despite the many wonders of the process, the most marvellous is the first stage, in which the glass is made into long thin bars. The fact that a rod two hundred and sixty feet in length can be made from a round piece of glass only a few inches in diameter, by merely pulling it out, and that the size, the density, of colouring, and thickness, remain the same throughout, whatever its length–thus, if the mass is pulled forty yards, the rod is thicker, but its measurements at both ends are the same–is as inexplicable as it is wonderful. The Egyptians, however, learnt this fact early in the history of bead-making, for many of their beads are marked with designs of birds, which could not possibly have been placed upon them after their manufacture. The pattern was traced upon the mass before it was made into rods and contracted with the rest of the glass. This is sometimes done at Murano in these days, and yet the small pattern, sometimes infinitesimally small, is as perfect in proportion as the larger design, from which it has been reduced by the operator expanding the glass down the alleys.

The bead-makers of Murano and Venice are copying to-day the legacy of beauty left them by their forefathers, and their industry is one of the most fascinating in all Italy.

Frank Hird