

given to technology, to a representation of the individual stages of the work involved, so that even today the creation of a bead can be followed in several stages: from the cane to the drawn bead, from the cut to the polished Bohemian bead. Semi-finished items, “squeezed” in molds, and metal mountings for the glass portions of rings, pendants, and earrings are also preserved.

BEADS FROM GABLONZ

Scatter and embroidery beads, rassades and rocailles, macca and charlotte beads, drawn and blown beads, wound and mold-pressed beads, silver and fine gold beads, wax beads, baroque and craw beads, pound and string beads, spindles and spools, bugles, glass corals, and glass garnets – the names are as numerous as the beads themselves and their meanings and interpretations vary in turn. From the Biedermeier period alone, there are inexhaustible varieties of Bohemian beads known to us; whether free-formed or “squeezed” (*gequetscht*), solid or hollow, they show an astonishing variety and range of modern and contrasting color: round and faceted, wrapped and striped beads, some with “belts” and aventurine bands, grooved and patterned, color lined, satin and silvered beads, in pale pastel shades, with silky surfaces and in bright Art-Deco color combinations (Plates 1A-1C, 21D-24B).

The great variety of Gablonz beads is revealed to us in the most important sources of the 19th and 20th centuries: the writings and statistics on the economy and the geography of Bohemia, the reports and commentaries on exhibitions, address books, etc.

One report from this time that is representative of many others, sheds light on the situation of Bohemian glass bead production: a Kreutzberg report from the year 1836 dealing with “glass compositions, beads, squeezed, and blown glass.” It states that some 10,000 people were involved in this branch of production which showed a profit of 2,000,000 florins:

The main seat of the glass coral, rocaille and chandelier stone trade is the market town, Gablonz.... The production is mostly headed by local entrepreneurs who supply the workers scattered throughout the neighboring dominions of Morchenstern and Kleinskill with samples and materials. The former are divided into: composition burners (*Compositions-brenner*), who melt the supplied glass batches in the most varied colors and shades, and then shape them into canes and tubes; glass and composition press-molders (squeezers) who shape the soft mass into raw chandelier and

jewelry stones with molding tongs; these are then further refined by cutting, which takes place in their own grinding mills, a single one of which often contains 6-15 work places, which the grinding mill owner turns over to individual workers to use in return for a fee; bead blowers, cutters, gilders and stringers, of which the latter (nearly 300 in the Dominion of Morchenstern alone are mostly children) string the finished beads onto wire and thread (Kreutzberg 1836:25, 26).

Gablonz Glass Smallwares

The beads from Gablonz (chiefly drawn, mold-pressed, and blown beads) were only a part – albeit a very important one – of the later so-called “Gablonz industry,” whose products are also known under the term “glass smallwares” or “quincaillerie;” the school founded in Gablonz in 1880 also used the terms “quincaillerie and bijouterie” in its name. At the beginning of the 19th century, “glass smallware” was frequently synonymous with “the small art of glass making” (Loysel 1818:264), “small glassmaking” or “small glass products” (Leng 1835:500) which is more direct and vivid than the expression, “glass smallwares,” in describing the size of the products. There are two main sources named here that are representative of many others during the periods of Historicism and Art Nouveau, which describe this production known far beyond the region’s borders.

In 1854, several Bohemian companies took part in the “General German Industrial Exhibition” in Munich. J. and C. Pfeiffer and H. Fischer from Gablonz, along with A. Pazelt from Turnau, showed “quincaillerie products” (including “ear drops” and beads in a variety of techniques: “partly hollow, partly solid, mold-pressed, painted, striped in all colors [such as pink, opal, ruby, black, garnet, coral red, Atlas, gold, silver], cut and uncut, round, elongated, tubular.” The Pfeiffer Company was awarded the “Large Commemorative Medal” “for the great beauty and inexpensiveness of their glass and quincaillerie wares and the unusually large size of the factory.” Fischer received the “Medal of Honor” “for the beauty and low price of his beads, stones and buttons made from glass” (Munich 1855:47).

Around 1880-1881, the following products from the District of Reichenberg were listed as glass smallwares:

1. Glass buttons, glass beads, glass jewelry, glass boxes, glass toys, glass pipe tips (imitation amber), spun glass, glass wool, etc.
2. Jewelry sets, brooches, earrings, finger rings, medallions, diadems, combs, hairpins, bracelets,

crosses, scarf pins, necklaces, necklace clasps, cuff links, etc. (made of glass and in combination with bronze).

3. Glass paperweights for photographs, glass pyramids with thermometers, geometric objects finely cut of crystal glass for school use.

4. Chandelier hangings such as prisms, pendants, points, drip cups, chains, etc., candle drip collars, knife rests, flasks, ink wells, glass door handles, etc.

5. Imitation precious stones in all colors.

6. Black, finely cut, glass fantasy-stones, discs, buckles, etc., for bijouterie fabrication.

7. Bead embroidery, as for hanging lamps, wall baskets, bell pulls, flower baskets, etc. (Stehlik 1880-1881:198).

A statistical overview of “the actual glass quincailerie-fabrication” in the Gablonz and Tannwald districts is provided by Gerner:

Altogether, a total of 9 glasshouses existed in 1870 for rods, prisms, and small rods. These works had command of 13 glass furnaces with 79 larger and smaller pots, and also 12 stamping works. The number of workers employed was 336. There was only one additional glasshouse in Lower Austria that produced glass rods, amounting to 8 ctr. [1 centner = 50 kilograms].

There were 58 glass composition works. They employed 264 workers. The production, as raw glass rods, prisms, mold-pressed and composition glass, amounted to 60,438 ctr., worth fl. 907,000. Glass mold-pressing houses, that is, works where the drawn raw glass rods are mold-pressed while in a soft state, to be sent on to cutters, gilders, etc., were 160 in number and employed 1,032 workers.

Cutting works, which used water power for the most part, were 268 in number. The number of treddle apparatuses (cutting benches that are set into motion by the worker's foot) approached 1,800. In these cutting works, some 2,859 men, 975 women, and 140 children, a total of 3,974 workers, were employed.

There were 76 spinning works in action, employing altogether 1,021 workers, in which the solid or hollow raw glass was worked at the lamp with the help of a blowpipe. There were 87 bead-blowing works, with 610 workers, in which hollow beads

were blown in the same manner, then cut, painted, plated with genuine and imitation gold and silver. Besides, there were another 172 “Gürtler” workshops with 1,234 workers which were put to use by the glass quincailerie industry [“Gürtler” = literally, a belt-maker, here however one who works with non-precious metals, especially in the bijouterie industry in the Gablonz area]. The value of the entire glass quincailerie production amounted to at least 2 million florins.

An additional 31 businesses in Lower Austria should also be listed here which made glass and wax beads to a value of 87,000 florins with 42 workers.

Also worth mentioning is the production of various types of glass beadwork which is done in Přeborn in Bohemia by an establishment which employs eleven, mostly female, workers, and out of about 30 ctr. of Parisian galvanized iron wire and 70 ctr. glass beads, formerly their own products, now of Venetian provenance, and 3 ctr. of sheet zinc, fabricates about 5,000 grave wreaths, flowers, etc., mostly for sale to France... (Gerner 1880:227-279).

Around the turn of the 20th century the term, “Gablonz Industry,” which established itself at a very early stage, soon became a...

collective name for a whole range of industries.... It is possible to divide the Gablonz Industry into separate groups according to the materials that were used: metal, black or crystal glass, or the production processes: “Gürtler” and glass mold-pressing works which produced articles themselves, since the materials they used and the production procedures were extremely closely related” (Tayenthal 1900: 12, 13).

Despite being subjected to certain changes, the definition of the term, Gablonz industry, remained constant in one aspect: in the rich variety of the “production assortment” that was inseparably associated with the name Gablonz. This name reached beyond regional borders and became a generic term, especially in the Austrian and German centers of the Gablonz industry, which were given the name “Neugablonz” (New Gablonz) when they were founded after World War II.

The Names of Beads

Apparently a number of the names for “natural” beads have been applied to “artificial” beads, or at least were used for these simultaneously. For that reason the following makes a short reference to natural beads.

Real Pearls

Size and shape gave real pearls different names: “piece, count, or *Nett* pearls” were round and for that reason the rarest; they were traded by the piece or by count and their value was determined by jeweler’s weight, according to grain and carat (Altmütter 1841:69). *Inter-nett* pearls differed from *nett-pearls* in their “less perfectly round shape” (Altmütter 1841:69). “Seed or *Loth* pearls,” about the size of millet seeds, were used for embroidery. Pearls with irregular shapes were called “craw, baroque, or lump pearls” (*Kropf*-, *Barok*- or *Brocken-Perlen*). Like seed pearls, they were mostly sold by weight (ounce or *Loth*, a German unit of weight equaling about half an ounce). “Paragon [paragon] pearls” were exceptionally large; *Monstres* were big pearls with unusual shapes. “Loaf-heel or kettledrum pearls” were flat-round; “cylinders or barrels” approached cylindrical form. *Coques* was the name given to irregular pearl-like formations that were mounted in gold and used for jewelry (Altmütter 1841:69, 70).

“Count pearls” were also described by Pierer in 1851 as “especially big, regular, and round pearls.” He called the olives and cylinders “card pearls” (sic!); the irregular, angular, large pearls he called “chunk or lump pearls [*Brocken-Perlen*],” and the smaller ones he referred to as “seed pearls” or “pearl dust.” Pierer (1851, 8:797) calls the finest artificial pearls *margrites* (“dust pearls”), which were used for embroidery, hanging knots, and tassels.

Kulmer lists the usual terms; the “piece, count, or *Nett* pearls, the *Inter-nett* pearls, seed or *Loth* pearls; craw (*Kropf*), baroque, or lump (*Brocken*) pearls; paragon (*Paragon*) pearls, *Monstres*, cylinders or barrels.” In addition there are the drops or pear-shaped drop pearls. What Altmütter calls “*Coques*” are “*Loques*” for Kulmer (1872:321, 322).

Bucher goes by shape to distinguish “baroque pearls” as pearls showing “irregular formation,” and by size for “paragon, count, *Loth*, seed pearls, dust pearls” (Bucher 1883:296).

Some of these terms were also used for glass beads. For example, the names seed beads, baroque beads (a term used in some places for all glass beads with irregular shapes) including craw beads (*Kropfperlen*) (Parkert 1925:160), cylinders, dust beads, and others.

False Pearls

In addition to the pair of opposites, “real pearls/false pearls,” there was also one of “natural and artificial pearls.” When the real pearls are placed opposite false (*faux*, fake, artificial) pearls in the wider sense, the contrast applies to

all beads of widely differing materials (glass, ceramics, amber, horn, etc.); in the narrow sense they refer to the so-called pearls that attempt to imitate genuine pearls. In the original German-language usage, the meaning is not so clear, however, since the word for “pearl” and “bead” is the same (*Perle*). Among the glass bead imitations of pearls, we find glass beads to which fish-scale essence is applied, either inside or outside. These can either be hollow or solid glass beads.

False pearls are larger or smaller, very thin-walled glass balls, which have a little opening on two sides opposite each other and are filled with certain materials or at least coated on the inside to give them the appearance of genuine pearls. Their shape is sometimes spherical, sometimes oval like olives, sometimes pear-shaped, sometimes almond-shaped, and sometimes even circular and flat (Loysel 1818:306).

Of all the artificial beads, those with the greatest importance are the glass beads (also wax beads). Marcasite beads are glass beads filled with the easily fusible, reflecting marcasite metal, which is also used for making sulfuric acid and ferrous sulphate. Pearls are also made of mother-of-pearl and similar nacreous shells, of steel (steel beads), gold or silver plated tombac (gold and silver beads), of alabaster coated with wax and pearl essences (Roman beads), whereby the coating soon wears off with wearing, of wood, resinous and other substances perfumed with rose oil (oriental rose-pearls) (Bucher 1883:296).

While the *Enciclopedia* of Anfosso (1889, 6:698 ff.) includes the term “artificial pearl” in a number of languages (Italian: *perle artificiali*; French: *perles artificielles*; English: “artificial pearls;” German: *künstliche Perle*; Spanish: *perlas artificiales*), the term “false pearl” is also used in English (Sauzay 1870:198) and in the French *perle fausse* (Sauzay 1868:244). Karmarsch and Heeren (1883:607, 608) differentiate between “genuine pearls (*perles fines*)” and “artificial, false pearls” (blown beads with pearl essence – *essence d’orient* – made from fish scales); glass pearls are treated under a term of their own (“*grain de verre, rassade, perle artificielle* – glass pearl”).

About the Names for Glass Beads

When, in 1874, the almost infinite variety of lampworked beads is referred to, then this also applies to glass beads in general (Zanetti 1874:135, 136). This variety has so far successfully withstood any attempt to force all its types into one single system; the only classification system that will ever be possible is one of certain representative types

of beads, since every system has to standardize and thus simplify.

Nevertheless, in the course of time, a certain nomenclature for glass beads has built up, although it often seems better suited for creating confusion than clarity: the differing usage of many terms, the changes in their meaning over time and – last but not least – a continuing lack of basic research, contribute to this confusion. Beyond that, certain aspects defy exact labeling, because of the difficulties of naming the material (*Masseperle* [“mass-bead”] – is it glass or ceramic?) or the technique (“faceted bead” – is it a bead faceted by cutting or one with a mold-pressed, faceted shape, ground, or fire polished?).

For North American researchers, the most important aspect for dividing beads into categories is the production technique: “drawn, wound, wound on drawn, mold pressed, blown, and Prosser molded.” Other important characteristics for differentiating are: “structure (simple, compound, complex, composite), shape, decoration, color, diaphaneity, luster, and size.” After providing a survey of the various systems (Beck 1928; Kidd 1970; Ross 1976; Stone 1974), Karklins (1985:87 ff.), however, doubts that it is possible to include all the variations: “...the practicability of recording varieties in a comprehensive classification system becomes doubtful when one considers that well over 100,000 varieties of glass beads have been produced in the world to date.”

We find no consistency in terminology; it appears that certain beads were named at will for their most striking characteristic, such as the technique (“wound bead”), shape (“cube”), color (“gold bead”), function (“link bead”), surface treatment (“iris bead”), etc. The way one differentiates between “genuine” and “false” and “natural” and “artificial” beads also appears to be arbitrary. As far as material is concerned, the “mass” bead assumes a rather vague position compared with the glass or porcelain bead. The starting material for the glass bead is usually divided into glass and “composition” (*Kompositz*, *Compsitz*), even though the latter is also glass. Therefore let us not be unduly disturbed by the terms “glass composition” or “composition glass!” And will we ever find out whether we may really equate the Italian *smalti* and *vetri*, the French *émail* and *verre*, and the English “paste” and “glass” with the German *Composition* and *Glas*?

Can we only classify the rods, tubes, and canes according to their size? How does our path take us from *Kulanz* to *Coulance* and to “Atlas” bead, which consists of that type of glass made with trapped, linear air bubbles, but is not the same as the Atlas glass of the hollow-glass industry? In regard to the transparency of the material, there are again a number of categories that, among other things, also

depend on the state of preservation of the bead in question: transparent, translucent, opaque. In between there are many gradations which are determined by all sorts of factors, such as the thickness of the glass, to name only one.

In addition to the basic shape of the bead, according to its longitudinal profile (round, oval, rectangular, triangular, polygonal, curved concave or convex, etc.), there is the far greater number of *façon* beads that cannot be subjected to any kind of classification. Longish tube segments are also defined in very different ways: sometimes glass items with a long convex shape are called *Spindeln* (“spindles”) (chart, F. Unger, Liebenau, Technical Museum Vienna, TH 34341), at other times “cylinder beads” or “tubes” (Breit n.d.). Under the label “cubes” (*Würfel*) we sometimes find beads that are broken from four-sided glass tubes, as well as blown or solid (*volle Würfel*) cubes (i.e., cubes molded in mold-pressing houses) (Posselt 1907:1). An excellent view of the almost limitless variety of bead shapes is provided by a selection of strung beads that were used as raw materials for further processing (Figures 2-13).

On the sample cards from Emil Hübner & Son in Neugablonz, the shapes are labeled as follows: spheres (*Kugel*) and cones (*Kegel*), spools, round beads, triangles, pyramids and double pyramids, square crosses (*Kreuzquader*), cones, rosettes, hubs (*Nabe*), paving stones (*Pflasterstein*), tops (*Kreisel*), honey-combs (*Wabe*), drops, olives (beveled, hexagonal, screw, bayonet, baroque, drill [*Bohreroliven*], Florentine olives), pears (screw, flat, beveled, and transverse pears), cylinders (round cylinders, bone cylinders [*Knochenwalzel*], grooved cylinders, S-cylinders [*S-walzel*]), clover-leaf, rose-beads, leaf, lentils, grapes, melons, berries, apples and pears (long pears, baroque pears), single-, big-, giant- and wide-hole beads, buttons (oval and faceted), pipes, bows (*Masche*), thimbles, arrowheads, bones, molars, blister beads (*Beulenperle*), wings, bells, and cogwheels. This list is by no means complete, but it does show the possibilities for giving names to shapes. With a few exceptions reserved for generally accepted terminology, the choices made by individual companies were certainly different.

Extrapolating the shape of a bead from its name can sometimes be compared with the difficulty in determining the technique of manufacture based on an examination of the surface of a bead: was the faceted surface cut or mold-pressed and then cut, or was it mold-pressed with an already polished surface through the use of polished molds? Neither is it always easy to differentiate beads with interior ribs from those with exterior ribs.

In the naming of colors, an added problem is the question of what technique was used to achieve them? Were

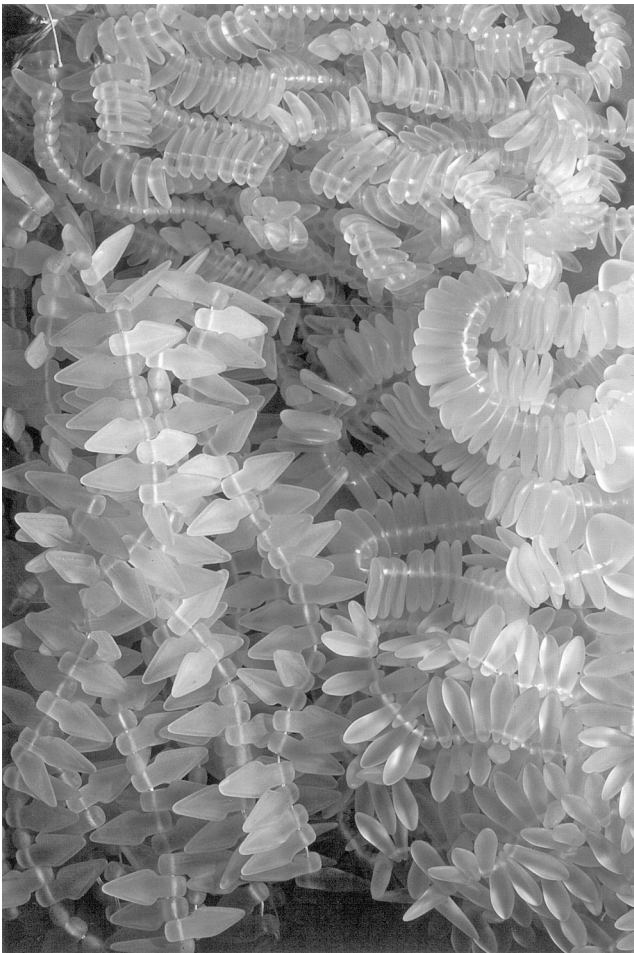


Figure 2. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

they colored in the batch, with overlays, colored linings, superficial etchings, or was the color painted on?

For a long time the opposites, “hollow/solid,” were the underlying criteria for classifying beads. We find this in many contemporary sources of the 19th century (encyclopedias and specialized literature on glass technology). Keess (1823:899) draws the difference between “2 main categories... solid or melted, and... hollow or blown.” Leng (1835:500) is satisfied with a list of “small glass products:” glass beads, glass corals, glass garnets, glass buttons, luster glass, knitting and embroidery beads, and seed beads. Altmütter (1841:87), like Keess, lists hollow and solid beads.

J. Loth draws a difference between beads made from glass rods and those made from glass tubes. Bohemian glass beads are made from glass canes which were “squeezed by means of a mold, pierced and strung.” The Venetian embroidery beads are made from thin glass tubes that are chopped up; they lose their sharp edges over the fire (Loth

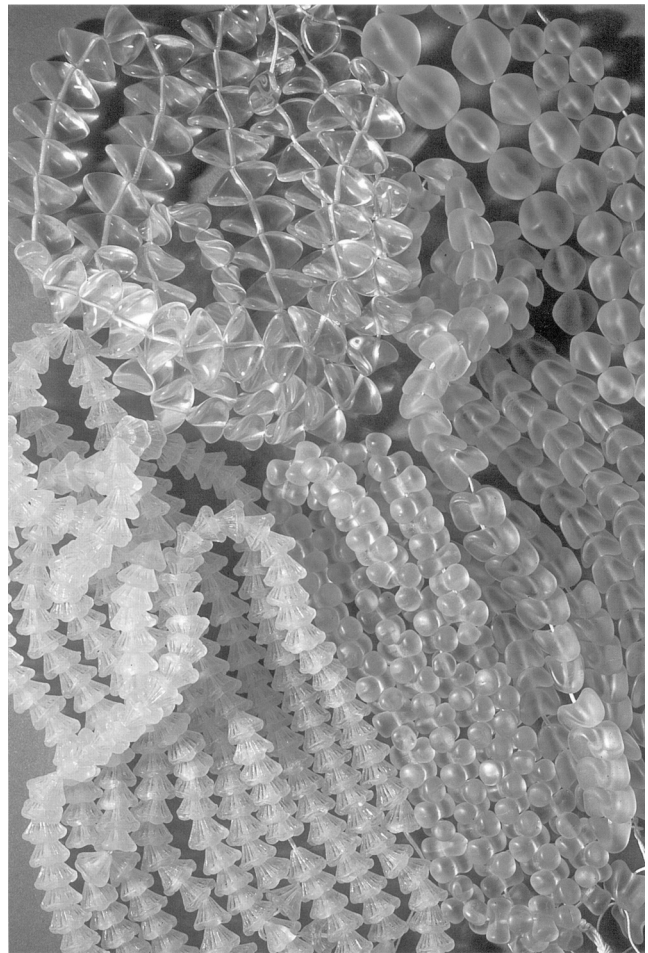


Figure 3. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

1859:72). The beads that imitate real pearls are the glass beads with shiny, silvery pearl essence (made of fish scales); glass corals are coated inside with colored wax and the silvered (*spiegelnden*) beads are given an inner coating of an easily fusible metal mixture (Loth 1859:73).

Benda pays more attention to the processing; he divides Gablonz beads into blown, snapped (drawn), and mold-pressed beads (Benda 1877:283, 284). Lilie (1895:165) also speaks of three “production methods:” lamp beads, mold-pressed, and snapped beads.

Finally, in 1911, Gustav E. Pazaurek decides on a division into four categories: 1) wound beads, 2) mold-pressed beads, 3) drawn-and-chopped beads, and 4) hollow beads. In regards to utilization, he establishes a difference between: 1) stringing, 2) sewing and embroidering, 3) braiding and weaving, 4) knitting and crocheting, 5) putting onto and into, and 6) mounting in metal (Pazaurek 1911:1, 2). With only minor differences, this basic division has proven to be

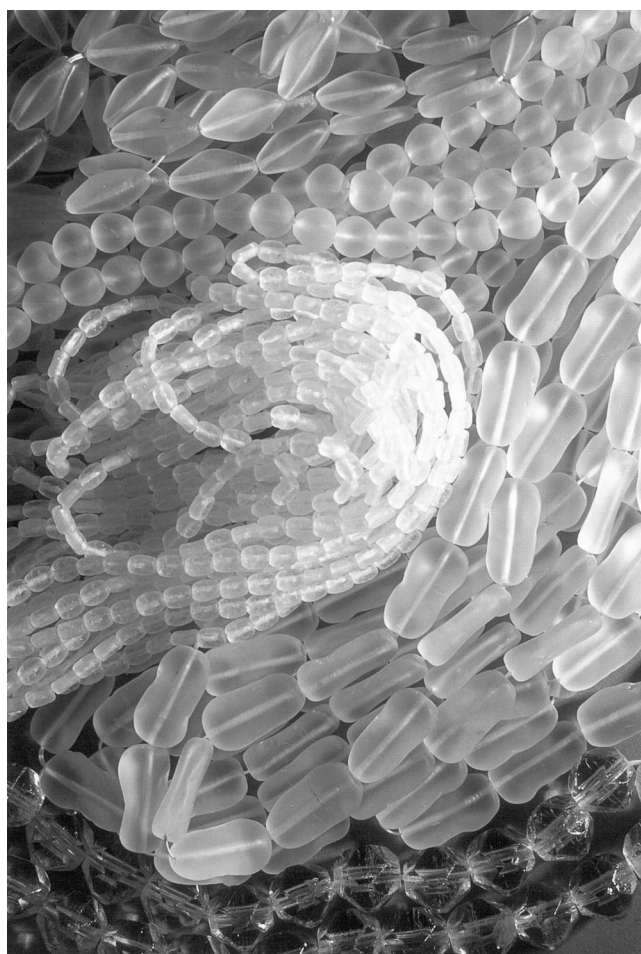


Figure 4. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

usable and has been accepted by most of the authors who came after him, with or without a source reference.

Parkert devotes a special chapter to the following bead categories: wound beads, chopped (*Hackeperle*) beads, snapped (*Sprengperle*) and seed beads, hollow glass beads, and mold-pressed beads (Parkert 1925:129, 206). His differentiation between snapped and chopped beads – which is technologically thoroughly justifiable – is noteworthy (Parkert 1925:139, 146). Pörner simply lists the categories of beads, although he does place the production methods at the beginning:

One differentiates glass beads according to their types and shapes. There are innumerable terms for them: snapped, mold-pressed, hollow, silvered, wound, fine gold, genuine gold, silver beads, etc.; those referring to shapes are acorns, toggles (*Knebel*), bottles (*Buttel*), pears, bugles (*Stiftel*), olives etc., those referring to production are



Figure 5. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

blown, mold-pressed (solid), wound, in regards to decoration there are cut, colored, lined, gold lined, silvered beads, etc.” (Pörner n.d.:2).

There is an extremely scarce sample collection from the first half of the 19th century that documents the most important terms, types of cut, colors, and sizes of Biedermeier beads from the Gablonz area. The terms are probably valid in general for the whole region. The system presented in the chart of Ferdinand Unger from Liebenau (Technical Museum Vienna, TH 43431) is very brief but all the more vivid. It includes both the shape (round = beads, oval = olives) and the color (coral) or the surface appearance or production method (satin): coral beads, coral olives; satin beads, satin olives; garnet olives (faceted dark red olives). Company sample cards with later dates are much more abundant. The terms they use are not universally valid, if only for the reason that in addition to the terms usually used in the business, such as “rocaille,” “oriental beads,”



Figure 6. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

etc., expressions used only by a specific company are also employed. Frequently a certain kind of bead is not listed by name but by an article number, and with few exceptions, colors around the turn of the 20th century are generally indicated by numbers. Systems for listing sizes also vary, depending on whether the sizes are based on the number system (starting point, the null bead [“0” bead]) or on the size in millimeters or in lines.

On the Redlhammer sample cards, to which this study devotes a special chapter, we often find article numbers as well as bead names in the export languages, English or French: Oriental Beads, Knebel-Beads, Rocailles, Scale-Beads, Ring-Beads, Shell-Beads, Snake-Beads, Link-Beads, Chain-Beads, Demie Olives, Feather Beads, *Perles à facettes*, Coraline-Beads, Molars, etc.

Sample cards from the company Glass Export (Section Beads, Jablonec), probably from the time after the Second World War, show “Rocailles and Seed Beads” and “Cut

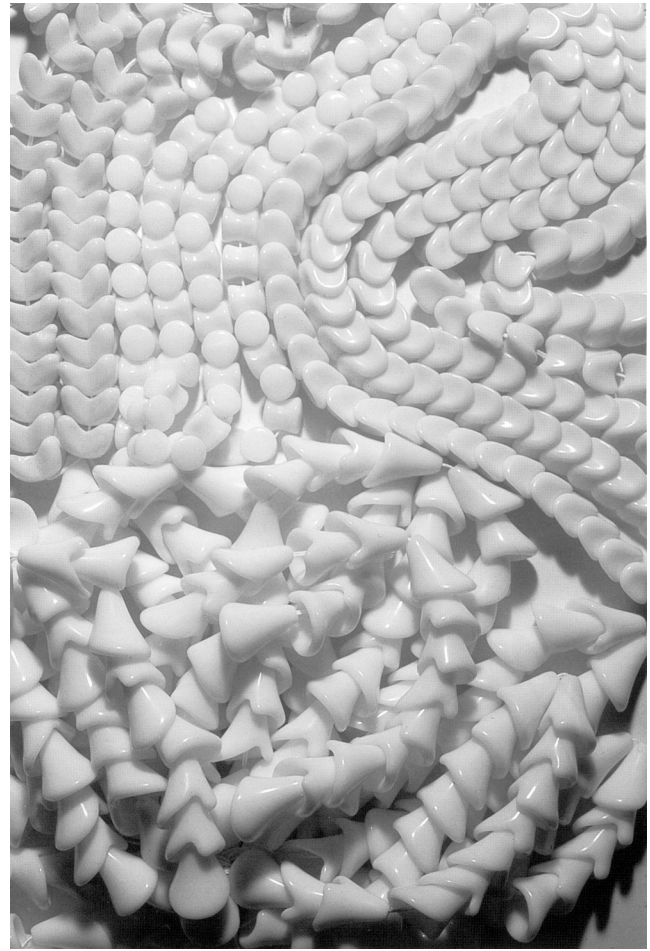


Figure 7. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

bugles” with many terms for the decoration.

The following names or types of beads are present on examples displayed at the Neugablonz Museum or are represented in the contemporary literature held there (Adressbuch 1924:27-38):

Ballotini, Boxer, Coulanze Beads, Coupe Beads, Diabolos, Double Capsules, Mold-pressed and Façon Beads, Real Gold and Silver Beads, Real Baroque Pearls, Real Pearl Formations and Shells, Ice Beads (Crackles), English Beads, Fantasy Beads, Color-lined Beads, Fine Imitation Pearls, River Pearls, Hollow Block Beads, Toggle Beads, Lamp Beads, Shiny Beads (Wax), Macca (Snapped Drawn Beads), Machine-cut Beads, Mass (*Masse*) Beads, Melon Beads, Mosaic Beads, New Beads, Oil Beads, Mother-of-pearl Hollow Beads, Platinum-colored and Genuine Platinum Beads, Passementerie, Rhombic Beads, Ring

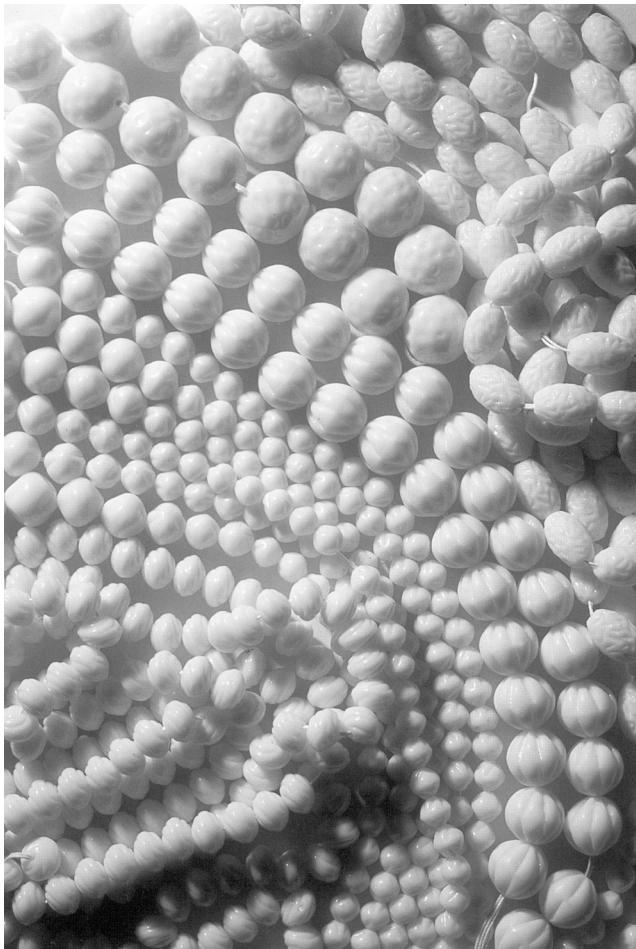


Figure 8. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

Beads (English), Rocailles, Rocaille Substitutes, Rumble Beads [*Rumpelperlen*], Round Beads, Cut Beads, Seed Beads, Pointed Olives, Pointed Ovals, Stick [Bugle] Beads [*Stiftperlen*], Scatter Beads [*Streuperlen*], Four-edged Cylinders, Four-edged Olives, Wax Beads, Molar Beads, etc. [not to mention beads made from other materials (wood, celluloid, Galalith)].

Verbal distortions like the “Coupe Bead” (presumably coupé) or “Crackles” (*craquelé*) sometimes disclose the origins of a bead, although occasionally the term remains a puzzle. We know that the so-called “real gold beads” are not made of gold, but of glass with a gold lining. It is likely that a similar situation applies to the “genuine platinum” beads and the “genuine baroque” pearls. In connection with glass beads, the meaning is clear; when the term is transferred to a different area (e.g., the metals sector), the door is wide open to misunderstandings.

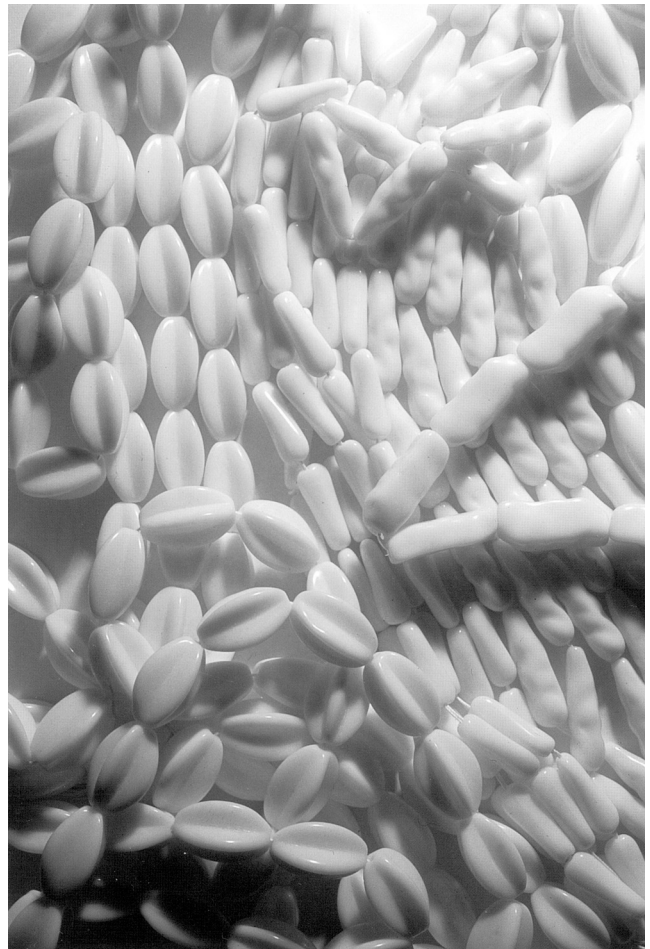


Figure 9. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

A mention of 19th-century needlework magazines (*Allgemeine Muster-Zeitung* and *Bazar*) also seems to me to be important. Here a bead terminology is found that probably corresponded more to general usage than that of glass technology. “Bohemian” beads were understood to be the short, cylindrical pieces of glass tubing that were snapped off and also known, somewhat mistakenly, by the name *Hackebissel* (“chopped bits”). “Spindles” were long, cylindrical tubes that tapered slightly towards either end; “gold spindles (long, yellow, silver-lined beads)” were mentioned in *Bazar*, as were “white-metalized spindles, crystal spindles (long beads).” Among the “seed beads” (probably small rounded beads and bugles) were “black, long, short white, and bronze-colored seed beads.”

“Pound beads (weighed beads)” and “big pound beads” were sold by weight; their quantities were often given in *Loths* (ca. half-ounce units). On the other hand, the amounts needed for a specific piece of work are given



Figure 10. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

in bunches or bundles, and the term *Maschperlen* (bundle bead), probably derives from this, just as the expression string beads (*Schnürperlen*) refers to the way they were sold commercially: “fine red string beads, bronze-colored string beads, small string beads in white,” the so-called “morning-ray beads” (*Morgenstrahl-Perlen*).

The term “foam beads [*Schaumperlen*] (oval foam beads, golden foam beads, black foam beads, bronzed foam beads)” remains unclear. Presumably, they were not glass beads, but the thin-walled, very lightweight metal beads known from jewelry-making in the Biedermeier period. “Foam beads which look like steel” are mentioned in the *Allgemeine Muster-Zeitung*. In one place all the aforementioned foam or copper beads are listed under metal beads (*Allgemeine Muster-Zeitung* 1864:13)

Also unclear are the many terms using words from the realm of metals: “steel beads, gold beads, copper beads, quicksilver beads (elongated quicksilver beads, tapering

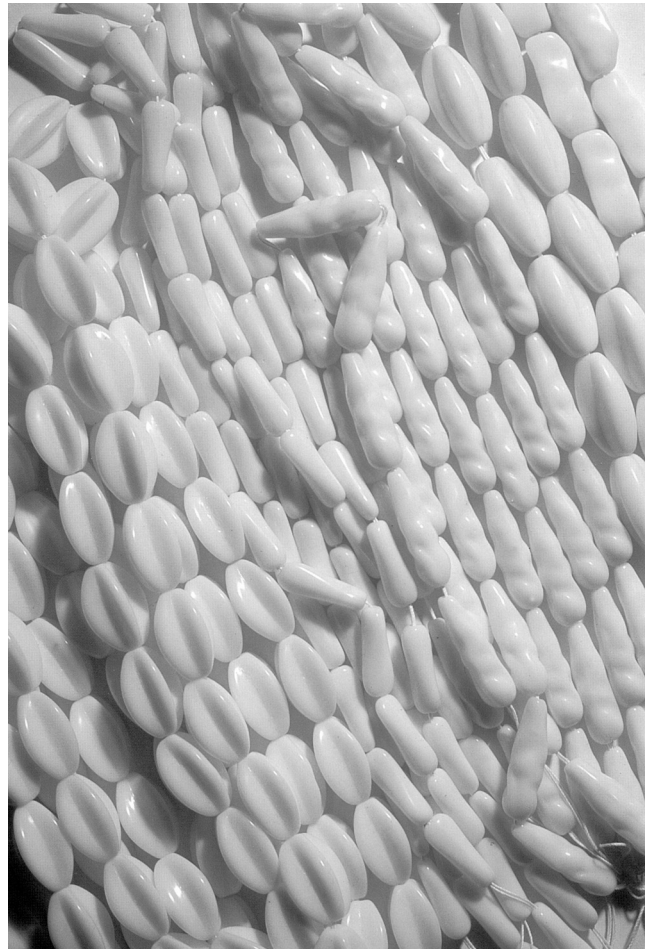


Figure 11. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

funnel-shaped quicksilver beads).” In the language of hollow-glass blowers, the gold bead is a gold-lined glass bead. With this in mind, it might be possible to connect the so-called quicksilver bead with the marcasite bead, whose “mirror-coating” may have consisted of mercury, among other things. We can never be entirely certain that in certain connections, “metal bead” actually means one made of metal or one of glass made to look like metal.

The *Allgemeine Muster-Zeitung* provides instructions for making a candle drip collar: “Bohemian beads” in three colors are required for it, “namely 4 strings of silver lined, 2 strings of gold lined,” which are later referred to as gold beads and silver beads (*Allgemeine Muster-Zeitung* 1864:13). Most likely, what was meant were silver- and gold-lined beads, although we most certainly may not carry this conclusion over to all other situations. We also find mention of metalized beads (silvered beads [*Spiegelperlen*]), metalized Bohemian beads, and bronze-colored glass beads.



Figure 12. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

Less frequently mentioned are “orange-yellow porcelain beads” (*Bazar* 1873), “white seed beads [*Emailleperlen*], blue iridized beads” (*Bazar* 1886), “faceted cut crystal discs (flat beads), pitted [*genarbte*] beads, trail-decorated (*überspinnene*) beads or façon beads;” very common, however, are “Atlas beads.” Two types come under the heading “bead mosaic:” staggered or lined up in straight rows.

Glass Corals, Glass Garnets, Garnet Beads, and Paternoster Beads

Some names for glass beads confront us again and again, albeit in a confusion of different meanings. Glass corals and glass garnets belong to these terms. Generally speaking, one understood a glass coral to be a round bead and glass garnets to be faceted beads, though the terms were sometimes narrowed. On the other hand, it is quite possible

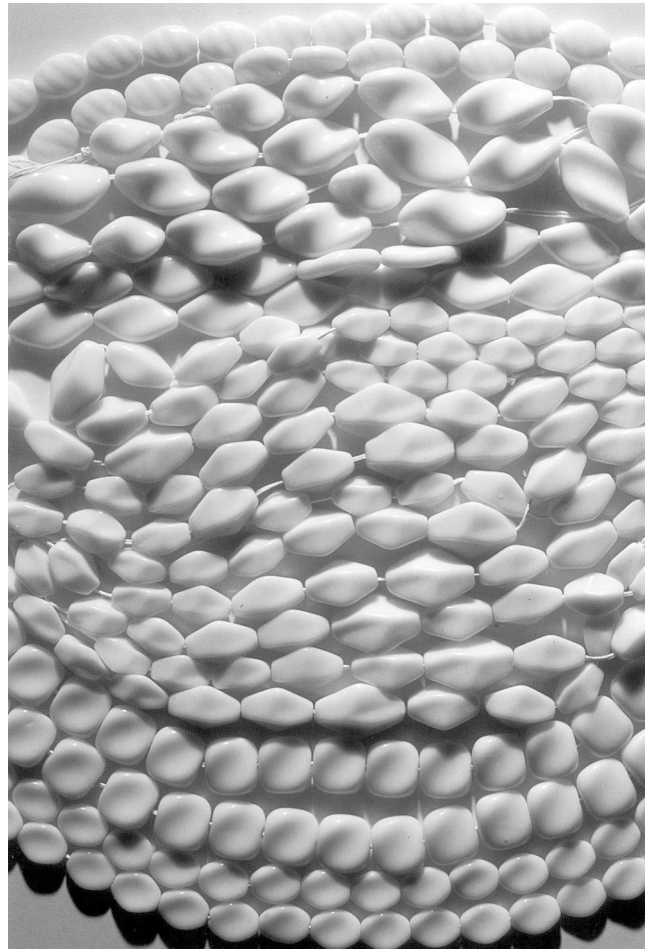


Figure 13. Façon beads; Heinz Fitschek & Co., Steyr-Gleink, Austria, after 1950.

to encounter a glass coral as a faceted bead (hollow or solid) or as a round bead or a paternoster bead intended for a rosary! And the coral bead does not always have to have a coral-red color as its most important characteristic; sometimes it is the shape or the finish (the cut), etc.

Let us look at several contemporary opinions from the 19th century in chronological order:

Sometimes the little beads look as though they were cut with sharp edges, like garnets,... (Loysel 1818:305).

In the red beads, which are supposed to imitate corals... varnish-like colors... are blown into them (Keess 1823:902).

The glass garnets are made from a molten glass that looks as much as possible like real garnets and acquire their shape through cutting.... Glass corals

can be had very easily. The worker sitting in front of the melting pot spears a gather of liquid glass onto a pointed piece of iron wire which simultaneously provides the coral with a hole and, through rapid turning, gives it its round shape, and then lets it fall into a cooling pot that stands at some distance from the fire (Leng 1835:503).

According to Altmütter, solid beads were “formerly often called glass corals” (Altmütter 1841:99):

Occasionally one can observe that not only solid, but also hollow beads blown from thicker glass, cut and faceted, are made to imitate genuine cut corals when they are blown from crystal glass, and finally coated on the inside with red-colored wax (Altmütter 1841:106).

Loth (1859:73) states: “Glass corals are made of blown beads, which one coats on the inside with colored wax.”

Karmarsch and Heeren (1880:44) add: “Glass corals are glass beads which are made from glass that gets the desired red color of corals through the addition of tin oxide, copper sulfide, and iron oxide.”

Even language researchers, the etymologists, have a great deal to offer us: Pierer says that “corals” means the same as “little glass beads” (Pierer 1851, 11:853) and, in addition to attributing the paternoster with the names “Our Father” and “rosary bead,” he also applies a third meaning: “necklaces of large and small beads or spheres or coins made into pendants or long tube beads” (Pierer 1851, 8:711).

The language dictionary compiled by the Grimm Brothers contains a flood of variations on the word “coral,” stemming from various languages and periods, such as “*coralle*, *corallus*, *koral*, *korall*, *koralle*, *coral*,” then “*kralle*, *chroll*, *kralen*, *kraal*, *koraal*, *grall*, *krall*, *korelle*, *korel*, *corelln*, *krellen*, *karellen*, *krelle*, *korällelein*, *krallel*” (Grimm 1873, 5:1795).

In a later Grimm volume we find under the keyword paternoster: “1) our father; 2) the larger round bead (representing the Lord’s prayer) in a rosary and also the latter itself; 3) a) in architecture, beaded molding, beaded frieze” (Grimm 1889, 7:1502, 1503). Consequently, “paternoster” confronts us as a bead in a rosary and the bead confronts us again in beaded molding. It only remains to add that the French *patenôtrier*, the German *Paterlmacher*, is sometimes used to mean the lamp blower and the bead winder.

COLORS AND COLORING, METALIZING, IRIDIZING, AND LUSTERING

The colors of “artificial” pearls are the result of the material used and the way it is handled, as well as the result of components which – like colored strings in colorless crystal beads (Plate 17B) – are not an integral element of the beads but influence their color all the same.

A complete color scheme would, of course, have to take into account all the possibilities of diaphaneity – from transparent to translucent to opaque in many stages – and also the technology of coloration, since this, too, brings about different effects: coloring in the batch, single and multiple overlays, colored linings, surface coloring, iridizing, lustering, and a great deal more. An objectively correct color nomenclature for beads is vastly more difficult to work out than norms for sizes. For that reason, many of the company sample cards list the colors mostly in numerical form (Plates 2B, 6B-C, 7B-C). The fact that every company had its own color scale with special number systems, goes without saying.

The “main colors” of the Biedermeier period are found on a chart compiled by Ferdinand Unger of Liebenau (Technical Museum Vienna, TH 34341). There are three categories:

Series B (for glass beads with 3 facets): sapphire blue, dark blue, crystal, topaz, pale green, dark green, amethyst, brown, black, opal white, opal blue, alabaster .

Series G (for fine composition beads): light ruby, dark ruby, light garnet, dark garnet, lemon yellow, chrysoprase, deep pink, opal, alabaster, opal blue, lapis lazuli.

Series I (for extra fine glass beads): crystal, sapphire, dark blue, chrysolite, aquamarine, emerald, amber, topaz, amethyst, dark ditto, brown, black.

The range of colors for beads is almost infinite; the color scale for a single company was able to include hundreds of colors, so that getting all the shadings of a single basic color together would also have resulted in hundreds of different gradations of hues. Extensive, if not complete, is a color card from the Redlhammer Company on which many color variations (Plate 3C) are shown for the 0-bead (ca. 4.5 mm in diameter). For the most part, the Redlhammer cards are constructed so that the shape of the bead is shown (usually at the top) in various sizes (Plates 1D, 2A), while the specific shades of color for that particular bead appear below (Plates 2D, 3B). Some bead-mosaics provide a kind of color chart by themselves (Plate 3A) and a mix of colors becomes a matter of principle in necklaces made from late Riedel beads (Plate 14D).