



ABSTRACTS

BOHEMIAN GARNET

HISTORY, IDENTIFICATION AND PROCESSING IN THE CONTEXT OF MUSEUM COLLECTIONS

PART I: MINING, PROCESSING AND IDENTIFICATION OF BOHEMIAN GARNET

GARNET GROUP

Jan Soumar

Garnets belong to nesosilicates – silicate minerals with insulated tetrahedrons. The empirical formula is $^{[8]}X_{3}^{2+}{}^{[6]}Y_{2}^{3+}{}^{[4]}Z_{4}O_{12}$, space group Ia3d, typical crystal forms rhombic dodecahedron and tetragonal trisoctahedron. Pyrope with the empirical formula $Mg_{3}Al_{2}[SiO_{4}]_{3}$ is a member of the garnet group. Pyropes from Bohemia are called Bohemian garnets. In case of Bohemian garnets, a part of the magnesium content is substituted by iron and calcium, a small part of aluminium with chromium, which gives the stone its “fire” – typical for Bohemian garnets.

Key words: mineral nomenclature / nesosilicates / garnet group / garnet formula / chemical formula of pyrope

LOCALITIES OF CHROME PYROPES IN THE WORLD AND THEIR DISCTINCTION POSSIBILITIES

Jaroslav Hyršl, Albert Gilg, Radek Hanus

Bohemian garnet and moldavite are Czech national precious stones. Bohemian garnet is common both in historical and in modern jewellery. The majority of old localities is already exhausted, so that big cut stones of a size more than 5 mm are increasingly rare. Cuts over 6 mm are a rarity and very expensive. Apart from cheap and different coloured almandines, also similarly coloured red garnets are used as central stones in modern jewellery. These garnets come from other world localities which have to be differentiated. This paper focuses on the mentioned problem and it also presents identical results of two independent studies.

Key words: world deposits of garnet / parameters of chrome pyropes / Tanzania / Arizona / Yakutia / gemological identification / optical spectrum of inclusion

GEMOLOGICAL IDENTIFICATION OF BOHEMIAN GARNET (CR-PYROPE) FROM CZECH LOCALITIES

Radek Hanus, Jaroslav Hyršl

Within the Czech Republic, Bohemian garnets occur in three isolated regions. These have different geology and do not border on each other (“České středohoří” – the Central Bohemian Uplands, the region under the Krkonoše mountains and a “Český ráj” – Bohemian Paradise and the wider surroundings of Kolín. Nowadays, the examined stone can be declared Bohemian garnet (Cr-pyrope) only if the following parameters are detected. The stone must have refractive index between 1,748–1,755, it must also contain Cr. The easiest way how to prove the presence of chromium is by means of the Raman spectrometer and by means of UV-VIS-NIR spectrometer, further on the basis of the presence of characteristic inclusions for the particular localities.

Key words: gemological identification / Central Bohemian Uplands / region under the Krkonoše mountains / Bohemian Paradise / Kolín region / parameters of Bohemian garnet / inclusion / analysis

THE HISTORY OF MINING AND PROCESSING OF BOHEMIAN GARNETS IN BOHEMIA

Jan Bubal

The most important centre of Bohemian garnets mining was always the Central Bohemian Uplands, although it occurs in other places in Bohemia. Garnets were mined for a relatively short time, and only in a few locations around Kolín, we can find just local deposits at the foothills of Krkonoše Mountains and more extensive mining around Hostinné is placed far to 1990s. Different archaeological finds show that mining was proceeded in the Central Bohemian Uplands most probably in 11th century and no later than 15th century. The first mining in the area was carried out by hand picking garnets from topsoil, or panning, which were little effective ways to obtain garnets. Much more effective appeared to hide topsoil and subsoil, and subsequent mining of pyrope-rich sites to a depth of several meters. This method of mining was used only in the richest parts of the deposit, where the layers with the pyrope came to the surface. A more advanced way of extracting garnets was excavating shafts and short gallery, which could be several tens of meters deep. It was a very high yielding process, but at the same time low safety. Extraction from primary rocks has proven ineffective, and since the 1960s garnets have been mined only in quarry. Originally, garnets were worn for processing in Prague, but at the latest at the beginning of the 18th century they were mainly cut in Turnov. Since then, with the exception of domestic and small cutters in mining sites, and in particular the 200-year-old tradition of grinding and processing garnets in Světlá nad Sázavou, which ended with the nationalization of enterprises in 1949, Turnov has remained as the most important center of grinding and processing garnets to this day.

Key words: History / mining, processing / Central Bohemian Uplands / Kolín / Turnov area / Svetla nad Sazavou

MINING AND PROCESSING OF BOHEMIAN GARNET TODAY

Pavel Tvrník, Jiří Boudný

The chapter focuses on the contemporary mining of Bohemian garnet in the Central Bohemian Uplands and in the region under the Krkonoše mountains. The contemporary quarry mining (block caving) follows on the historical mining ways which were usually less efficient and less safe. The quarry mining of Bohemian garnet takes place in two regions. From the 1960s until now it was near Podsedice and since the 1990s (with a longer break) in the region under the Krkonoše mountains. The quarry mining is quite simple and primarily, it has several advantages in comparison with all the preceding mining ways. After the overburden of the topsoil and of the subsoil layers is made, the mining can begin. During the mining, all the usable raw material of Bohemian garnet is obtained. The obtained gravel fraction of 2–8 mm size is concentrated and followingly is sorted manually on an illuminated table. Apart from Bohemian garnets, also other minerals in small amount are obtained (spinel, topaz, olivine, but also sapphires and rubies). All raw gemstones which are obtained by mining, are processed in company grinders and followingly, they are used for jewellery production. The legal mining of the raw material naturally precedes Environmental Impact Assessment (EIA) and a demanding legislative process. The result of the process is the so-called Plan of the Opening Work and Mining Preparation (in Czech: POPD). During the mining, the relevant authorities supervise if this plan is obeyed. The company takes care of the established procedures and the compliance with POPD. It seeks to save energy and fuels as well which results in a reduction of environmental impact on the surrounding area. The mining in Podsedice in the future is ensured in the long term in the current extraction area. However, the mining in the extraction area of Dolní Olešnice will take place only a couple of years. The mining in other localities is unlikely in the future.

Key words: mining / processing / Central Bohemian Uplands / region under the Krkonoše mountains / quarry mining / environment

PYROPE PLACER DEPOSITS IN THE CENTRAL BOHEMIAN UPLANDS AND THEIR MINERALOGICAL CONTENT

Zdeněk Dvořák, Jiří Svejkský

The chapter focuses on how the knowledge of pyrope placer deposits in the Central Bohemian Uplands developed. Source areas for quaternary placer deposits are characterized. Further, the development of knowledge is outlined about minerals contained in pyrope placer deposits. It follows a description of the particular significant minerals.

Key words: Central Bohemian Uplands / pyrope / pyrope placer deposits / diatreme

DEPOSITS OF BOHEMIAN GARNET IN THE KOLÍN REGION**Radek Hanus, Pavel Hladký**

In terms of industrial mining, the garnet deposits in the Kolín region are not perspective today anymore. Only a very small part of garnets from the Kolín region can be used for jewellery purposes. There is only an insignificant amount of Bohemian garnet from the Kolín region in old jewellery.

Key words: Kolín region / pyrope / deposits of Bohemian garnet / gemological identification / mining and processing of garnet

DEPOSITS OF BOHEMIAN GARNET IN THE REGION UNDER THE KRKONOŠE MOUNTAINS**Radek Hanus, Pavel Hladký**

Deposits of Bohemian garnet in the region under the Krkonoše mountains, specifics of its deposits in comparison with the garnet deposits in the Central Bohemian Uplands, its mining and possibilities of the differentiation between garnet obtained in the region under the Krkonoše mountains and Bohemian garnet from other deposits in the Czech Republic.

Key words: region under the Krkonoše mountains / pyrope / deposits of Bohemian garnet / gemological identification / mining and processing of garnet

IDENTIFICATION OF BOHEMIAN GARNET USING ELECTRON MICROANALYSIS METHODS (SEM-EDX/WDX)**Patricie Halodová**

Scanning electron microscopy combined with microanalytical system (EDS/WDS) is a fast and reliable tool for the determination of chemical composition of minerals. Minerals from the garnet group can be identified based on their characteristic EDS spectra. The analysis of garnets from different deposits and the comparison of acquired chemical composition has shown that electron microanalysis can help to distinguish between imitations and Bohemian garnet. Based on the presence of a different content of the main elements or the presence of characteristic admixtures (especially Cr_2O_3), the type of garnet and possibly its origin can be determined. However, if the garnets have identical chemical composition, the EDS spectrometry cannot clearly identify their origin, i.e. not uniquely distinguish Bohemian garnet from the pyrope originating from another deposit outside the Czech Republic.

Key words: Bohemian garnet / identification / electron microanalysis / EDS spectra / characteristic admixture of chromium

ANALYSIS OF GEMSTONES AND MINERALS VIA MOLECULAR SPECTROSCOPY METHODS**Karel Šec, František Kesner**

The most commonly used methods of molecular spectroscopy are infrared and Raman spectroscopy. These methods are complementary, their output is always the sample spectra. These spectra can be used for a very rapid qualitative and quantitative analysis of the substances and mixtures in solid, liquid and gaseous form. The chapter summarizes some of the main practical applications of these methods for the analysis of substances in the field of gemology and geology: Basic identification/analysis of gemstone authenticity, natural versus synthetic diamond, identification of diamonds, analysis of moldavite authenticity, measurements of inclusions (various states), authenticity of amber and analysis of Bohemian garnets. Both techniques can be used as laboratory, portable and handheld in the field.

Key words: analysis / molecular spectroscopy / gemological identification / gemstone authentication

POSSIBILITIES OF GARNET IDENTIFICATION BY XRF SPECTROMETER**Michal Mazík**

Garnet as a decorative component in jewellery, folk costumes or as an independent mineralogical object of natural scientific collections attracts attention both within processing and protection of cultural heritage. For this reason, there is a need to identify it. Not only its exact mineralogical definition (Bohemian garnet) is necessary but also its differentiation from glass or other gemstones. For these purposes the use of a quick and qualitatively reliable spectral method of X-ray fluorescence (XRF) is possible. A hand-held XRF spectrometer Innov-X Delta1 was used to identify and differentiate garnets. Garnets borrowed from Mgr. Radek Hanus, Ph.D. and objects provided by the Moravian Museum were used for experimental measurements.

Key words: XRF spectrometry / analysis / identification of Bohemian garnet

NATURAL AND SYNTHETIC IMITATION OF BOHEMIAN GARNET

Ján Štubňa

Red colour gemstones were named as carbuncles, at the beginning. Since the 14th century, Bohemian garnets have been distinguished from other species of carbuncles. In the paper, we present the most common imitations of Bohemian garnets. A suitable method for identification of them is optical microscopy. It is possible to distinguish natural and synthetic imitations of Bohemian garnets very precisely, by focusing external and internal characteristics. It is also possible to determine the origin of the Bohemian garnets. Other gemological methods such as refractive index and density detection are also suitable for resolution. There is a linear dependence between them. The Bohemian garnet has a low refractive index and a low density. Various types of spectroscopy, such as absorption spectroscopy (UV-VIS-NIR), Raman spectroscopy, and Fluorescent XRF spectroscopy are also suitable for identification. By means of these methods, also the chromium content can be detected, which is characteristic of the Bohemian garnet.

Key words: gemological identification / synthetic gemstones / spectroscopy / substitutes of Bohemian garnet

LEGAL PROTECTION OF THE DESIGNATION OF ORIGIN AND GEOGRAPHICAL INDICATIONS AT CZECH, EUROPEAN AND INTERNATIONAL LEVEL, WITH PARTICULAR REGARD TO THE DESIGNATION “BOHEMIAN GARNET” AND “BOHEMIAN GARNET JEWELLERY”

Tomáš Dobřichovský, Vojtěch Šmíd

The chapter deals with the institute of appellation of origin and institute of geographical indication and their importance same as brief introduction to legislation. The appellation of origin and geographical indication are a way of identifying goods with certain special characteristics attributable to natural or human factors in a particular territory. An important aspect of the appellation of origin and geographical indication as a designation is the intensity of the relation to a particular territory. If there is a higher degree of intensity of the relationship consisting in the fact that all phases of the production of goods take place in a particular territory, we refer to the appellation of origin. If only one of the phases of production takes place in a particular territory or if the goods are somehow related to the territory, we speak about geographical indication. Protection of designations of origin and geographical indications may be established either at national, European or international level. At national level, designations of origin are registered in the register of appellation of origin and geographical indications maintained by the Industrial Property Office for the Czech Republic. The appellation of origin “Bohemian garnet” and “ Bohemian garnet jewellery” is also registered in this register. The appellation of origin and geographical indication can be used by anyone who fulfils the conditions of designation that is registered. Protection against the abuse of the sign is also based on the registration. The fulfilment of the conditions of appellation of origin or geographical indication is carried out by the Czech Trade Inspection Authority together with the State Agriculture and Food Inspection Authority.

Key words: designation of origin / geographical indication / legal protection of Bohemian garnet / Bohemian garnet jewellery

IMITATIONS OF BOHEMIAN GARNET IN EXPERT PRACTICE IN THE INSTITUTE OF CRIMINALISTICS

Marek Kotrlý, Ivana Turková

The Institute of Criminalistics of Police of the Czech Republic (KU) relatively often analyses art objects and jewellery. The majority of analyses made in criminalistics deal with definition, description and comparisons of virtually any substances which are related to an event which is relevant from the criminalistic point of view. The central laboratories are thus usually well-equipped. Regarding the art objects or gemological objects, it is thus no problem to make the needed analyses. Several devices and techniques are used, the most important are optical microscopy methods in transmitted and reflected light and fluorescence, quantitative color measurement, electron microscopy and microanalysis, micro X-ray fluorescence analyses (directly in the chamber of electron microscope), cathodoluminescence, Raman spectroscopy (again, it can be done directly in the chamber of the SEM microscope) and others. In the expert practice of the Institute of Criminalistics, in the field of analyses of Bohemian garnet, most commonly imitations can be found which use cubic zirconia (ZrO₂), garnets from other localities which do not correspond with the record (definition) of Bohemian garnet and on rare occasions, also glass compositions.

Key words: imitation / authenticity of Bohemian garnet / analysis / criminalistics

PART II – BOHEMIAN GARNET IN THE CONTEXT OF MUSEUM COLLECTIONS

WORKS WITH BOHEMIAN GARNET IN THE NATIONAL MUSEUM IN PRAGUE IN THE CONTEXT OF EUROPEAN COLLECTING

Dana Stehlíková

The chapter summarizes information about evidence of Bohemian garnet in the collections of the National Museum. Raw and cut pyropes are a part of mineralogical collections of Natural History Museum. Artefacts in which Bohemian garnet is used are found in various funds of the Historical Museum or the Czech Museum of Music. Attention is also paid to iconographic evidence, to acquisition strategy changes over time and to the presentation of Bohemian garnet. An outline of historical development of use of Bohemian garnet in applied art and arts and crafts follows on from the part dedicated to museum documentation. To selected artefacts is attached information about their journey into museum collections or a comment explaining the conservation/restoration procedures and attitudes to Bohemian garnet applied in our most significant institution creating collections.

Key words: National Museum / Bohemian garnet in museum collections / mineralogical collections / collections of applied art / collections of arts and crafts / restoration

BOHEMIAN GARNET IN THE COLLECTIONS OF THE MUSEUM OF DECORATIVE ARTS IN PRAGUE

Světlana Spiwoková

A wide range of interesting objects with Bohemian garnet is found in the collections of the Museum of Decorative Arts in Prague. Primarily the jewellery from the 19th century is a constant motivation for examining. In 1984, the Museum of Decorative Arts in Prague organized the exhibition "Bohemian garnet". The curator and author of the catalogue was Mrs. Věra Vokáčová. Several research workers draw inspiration from her experience until today. Bohemian garnet has a unique color and a nearly symbolic value. Jewellery set with it has several specific qualities. Usually they are not made of precious metals, which means that they are not hall-marked. Many companies repeated their successful patterns even decades. In the following chapter, knowledge about the collection is summarized in the context of the conservation and restoration care for it. A special attention is paid to historical techniques and procedures of work with gemstones. The knowledge of the specific techniques can help to determine the time of creation. When composing the chapter, the method of comparison of historical objects was used. For illustrative purposes, fragments (from a private collection) were used and also unfinished works which have served as teaching aids for many years. The result of the documentation and comparison is a description of techniques, their time classification, their difficulties and specific colloquial names.

Key words: Museum of Decorative Arts in Prague / collections of applied art / collections of arts and crafts / conservation and restoration / jewellery making techniques

JEWELLERY COLLECTION WITH BOHEMIAN GARNET FROM FUNDS OF THE MORAVIAN GALLERY IN BRNO AND ITS RESTORATION

Alena Krkošková, Monika Zemanová

Bohemian garnet as a mineralogical symbol of Bohemia is represented in the fund of the Moravian Gallery in Brno in the jewellery subcollection. This subcollection is a part of the collection of precious and basic metals and varia. The collection of approximately 130 pieces of jewellery with Bohemian garnet includes especially townsman jewellery from the period after the 1850s which were made in the Turnov region, in Prague and in Vienna. Nearly the whole collection including several pieces of contemporary garnet jewellery was conserved and restored because of the planned placement of garnet jewellery in the permanent exhibition. The photodocumentation indicates the condition of the artefacts after the conservation. It presents typical kinds of townsman jewellery. In the 19th century, this type of jewellery was a widespread phenomenon on a mass scale and, according to the artistic depiction and expensiveness, it was also a symbol of social prestige.

Key words: Moravian Gallery in Brno / jewellery collections / townsman jewellery / conservation and restoration of garnet jewellery

BOHEMIAN GARNET AND ITS IMITATION IN FOLK CULTURE

Alena Křížová

In the folk milieu, a considerable emphasis was laid on magic and on symbolism of materials, things and colours. The red colour was a symbol of life, blood and love and that's why minerals with this colour took over its protective function. These minerals played a significant role in the protection of children who wore a necklace or a bracelet as a tool against evil forces and diseases. The use of Bohemian garnet in jewellery is documented since the Middle Ages in the town milieu. We have knowledge about conditions in the country only from the 18th and the 19th centuries. Written and picture sources show that garnet necklaces and rosaries were worn on the whole area of the Czech lands. The red stone or its imitation made of glass composition was set in rings, in clips for fastening women's chemises (the region of Chodsko, the Cheb region, the Broumov region, the Těšín region) and in hair pins (Eastern Bohemia). Pyropes were most applied as a part of decoration on chain necklaces with coins. The coins were set in filigree frames decorated with stones (Western Bohemia with German inhabitants and the Těšín region). In Central and Eastern Bohemia, Bohemian garnet or its imitations supplemented women's textile bonnets which were embroidered with golden and silver threads. In the first half of the 19th century, the series production of jewellery with Bohemian garnet expanded to the extent that these stones became more accessible also for lower social classes. They kept their popularity up to the 20th century.

Key words: folk culture / symbolism of Bohemian garnet / imitation of Bohemian garnet / iconographic references / series production

BOHEMIAN GARNETS AND THEIR GLASS IMITATIONS IN THE COLLECTIONS OF THE NORTH BOHEMIAN MUSEUM IN LIBEREC

Kateřina Nora Nováková

The collections of the North Bohemian Museum in Liberec contain several dozens of items containing Bohemian garnets or their glass imitations. These are mostly jewellery and small silverware items of the middle class and liturgical items, the oldest of which date back to the 18th century. In them, Bohemian garnets are set as individual stones, mostly in combination with stones of other colors or pearls. The most other Bohemian garnet jewellery and imitations come from the second half of the 19th century and are jewellery in the neo-renaissance and neo-baroque style, where most of the stones are planted with grain technology. Folk jewel of various types is also widely represented in the collection, further folk costume bonnets or the painting Last Supper and a reliquary of Saint Appolinaris. Bohemian garnets are also used in our collection of interesting Art Nouveau jewellery and in several pieces of jewellery from the 1930s – 1940s and also in student design from the early 21st century.

Key words: North Bohemian Museum in Liberec / townsman jewellery / liturgical jewellery and objects / folk jewellery / imitation of Bohemian garnet / contemporary jewellery and design

BOHEMIAN GARNET AND ITS IMITATIONS IN THE COLLECTION OF THE ETHNOGRAPHIC INSTITUTE OF THE MORAVIAN MUSEUM

Markéta Tobolová

The Textile fund of the Ethnographic Institute of the Moravian Museum in Brno has over 58,000 items. It mainly contains subjects of traditional folk clothing of Moravian provenance, but also to a lesser extent reflects the period style of the urban surroundings, as well as interior textiles, clothing accessories such as headgear, bags, handbags, shoes, umbrellas and, to a lesser extent, jewelry and bijouterie. Garnets or their imitations are found in the largest number of ladies' caps from the territory of Bohemia, which were worn by married women in towns, but also by the wealthier rural strata of the population, approximately until the mid-19th century. The collection contains two peasant jewels with embedded Bohemian garnets from the Cheb region, jewelry in the form of necklaces consists of several rows of commemorative coins hanging on chains, women wore it for festive clothing even at the end of the 19th century. Garnet decoration has also been preserved on the hairpin and bracelet. An interesting feature is the corselet from Bohemia, from the surroundings of Mladá Boleslav, which represents the women's traditional folk clothing from the first half of the 19th century, a hook with a garnet imitation is fixed on the back, which was used to attach the skirt. During the late 19th century, the market was filled with imitations of Bohemian garnets that were worn both on the caps/bonnet and on the neck in the form of a multi-row cord. However, most of the listed items are missing detailed passport data on the original owners, determining a more accurate location or at least an approximate date, and determining the authenticity of a Bohemian provenance garnet is also problematic.

Key words: Moravian museum / folk culture / traditional folk clothes / accessories / rural jewellery / imitation of Bohemian garnet

FORMS OF JEWELLERY WITH BOHEMIAN GARNET IN THE COLLECTION OF THE SLOVAK NATIONAL MUSEUM – MUSEUM OF HISTORY

Andrea Milanová

The largest part of the jewellery fund of the Slovak National Museum – Museum of History represents a collection from primarily the 19th and the beginning of the 20th century. However, the 16th and the 17th centuries are considered as a most significant period of jewellery making in Slovakia. The absence of these works was caused by a ban on Christian burial customs regarding placing gifts in the grave on the one hand. Another factor was the fact that the estate jewellery was left to churches in order to be used for the production of liturgical objects. A next factor was appreciation of property during wars and poverty and last, but not least, wear of the jewellery and its reworking to a new and more fashionable jewellery. The collection of jewellery with Bohemian garnet is relatively small-scale. It can be divided into two groups. The first one includes jewellery which was produced by the goldsmiths in Bohemia and bought directly from them or which was sold as imported goods in Slovakia. The second group includes the stones with which worked the goldsmiths in Slovakia and set them into the jewellery. The following jewellery pieces are considered to be Czech works: a set consisting of a ring, a brooch, a bracelet and earrings in an original casket, a bracelet with beads, two tie pins, a necklace made of punched gold and a butterfly-formed brooch which was created by means of the pave technique. In this technique, the garnets are set into frame constructions and the colour and the brightness of the gemstone can develop at full stretch. A goldsmith working in Slovakia uses Bohemian garnet in a different way from a goldsmith working in Bohemia. The first one sets the stone and works with it as with a small, very attractive central gemstone together with beads or diamond chips. This fact is documented by an oval locket, a silver brooch in form of a leaf and a golden pendant in form of a four-leaf clover in Art Nouveau style. *Key words:* Slovak National Museum – Museum of History / jewellery making in Slovakia / fond šperkov / Bohemian garnet / Tyrol garnet / almandine

OBJECTS DECORATED WITH GARNETS IN THE BRATISLAVA CITY MUSEUM COLLECTION

Zuzana Francová

The chapter presents a small set of objects from the collections of Bratislava City Museum. These objects are decorated with Bohemian garnets. Except for a baroque travel cutlery for one person, the set is primarily focused on different types of jewellery especially from the 19th century. The set of museum jewellery with Bohemian garnets, or more precisely almandines, can be divided into two basic groups. The first one consists of artefacts in which these gemstones of various sizes and quantity are applied individually, in a metal assembly. In several cases, apart from numerous garnets of a small size also bigger almandines of protuberant oval form are used. In the second smaller group can be put also the jewellery in which are set also gemstones of a different type and colouring besides garnets or almandines. Alternatively, garnets occur in this group in a combination with completely different materials (glass, miniature painting on China, sea or river pearls, aragonite). From the typological point of view, in the museum are represented: brooches, bracelets, earrings, necklaces, pendants and rings with coronets. For the most part, they are single items (solitaires). There is only one jewellery set made of Bohemian garnets in the collections. It consists of a ring, a small brooch and a necklace with a pendant. The most artefacts were created during the second half, alternatively the third quarter of the 19th century. Only a few items come from the 20th century.

Key words: Bratislava City Museum / garnet / almandine / jewels / cutlery / museum collections

GARNET JEWELLERY AS INSPIRATION FOR JEWELLERY PRODUCTION IN JABLONEC NAD NISOU

Kateřina Hrušková

The text is focused on an identification and description of the costume jewellery, which is based on shape of classical Bohemian garnet jewellery. Author is focuses on items that are part of the collection of the Museum of Glass and Jewellery in Jablonec nad Nisou. The researched collection contains items for which a visual analogy to garnet jewellery can be found not only because of the garnet glass is used, but also because of the effort to achieve the same design. Herewith, the author draws attention to the issue of various qualities in jewellery, which oscillates between very cheap and luxurious production. The quality depends on the quality of the material and the quality of the processing too. To find parallels between standard jewellery and fashion jewellery production, the author uses examples from literature and product catalogues of DUV Granát Turnov. However, she points out that a suitable comparative material is garnet jewellery in the collection of the Jablonec Museum. Particular parallels are presented on selected

subjects from the period between 1830–1989. In the period after 1948, the author also notes the subjects presented and awarded at international fairs. It follows from the text that despite the peculiarity of Jablonec fashion jewellery production, traditional jewellery production remains one of the possible sources of inspiration. In the case of Bohemian garnet jewellery, it is an inspiration generally popular and timeless jewellery. Garnet jewellery has no doubt influenced the appearance of the jewellery products presented here. However, they did not become mere imitations, but they were able to use the technological possibilities of fashion jewellery, which are denied to jewellery.

Key words: Museum of glass and jewellery in Jablonec nad Nisou / jewellery / garnet, glass / past / glass bead / cutting / Jablonec nad Nisou / jewellery industry / garnet glass

BOHEMIAN GARNET IN CONTEMPORARY JEWELLERY BASED ON EXAMPLE OF GARNET JEWELLERY FROM INTERNATIONAL SYMPOSIA IN TURNOV

Miroslav Cogan

Bohemian garnet, pyrope, if we use the correct mineralogical term, has been a phenomenon of the Czech and Central European culture for centuries. For Czechs, it is a symbol of their country, it was accepted and worn as a patriotic symbol in the 19th and the 20th centuries. From the technological point of view, it is also very specific. For this reason, the extent and development of the characteristic production techniques of garnet jewellery are relatively limited. Bohemian garnet is popular among the contemporary jewellers not only because of its very attractive fire-red colour and its brilliance, but also for its spiritual dimension. The Museum of Bohemian Paradise in Turnov, the Czech Republic, possesses more than 630 garnet jewellery pieces. Approximately one third of them are works by participants of international jewellery symposia which take place in Turnov since 1984. In this museum collection, we can find different ways of approach of Czech and international artists to this garnet heritage. Although it is not obligatory to use Bohemian garnets in their symposium works, many artists decide to use this extraordinary occasion. They can pick up this precious mineral by their own hands on the garnet field and they can see how the stones are cut, polished and set in the jewellery in some of commercial jewellery firms. Some artists try to explore the colour and the glamour of garnet in classical cuts but in new designed jewellery, sometimes using prefabricates for commercial jewellery and making the reinterpretation of traditional garnet jewellery (Bettina Speckner, Jivan Asfalck). Next possibility is to connect silver segments covered with conventionally set garnets with new or non-traditional materials. Other artists prefer to apply rough garnets even they are not really such beautiful uncut and unpolished. The reason is that they have found and picked the stones by themselves. The garnets become thus a document of the situation, an information about the experience of the landscape and a report of happy adventure of seeking. Another special attribute of pyrope is its resistance against high temperatures which offers other artistic ways based on casting the stones in silver or glass. An interesting reflection of the „nationality“ of the Bohemian garnets we can see in works where the garnets are used connecting to the home culture and handcraft traditions of some participants as in the jewellery made by Japanese artists Yutaca Minegishi or Takayoshi Terajima. Some of the guest artists reacted to the emotional background of the Bohemian garnet in an opposite, provocative way. They hid the stones in their art works (Christophe Burger, Vratislav Novák) ignoring the effort of the goldsmiths who wanted to use their optical parameters for hundreds of years. Ruudt Peters or Fabrizio Tridenti transformed them in a “new” mineral or material and Matej Bezúch presents garnet jewellery on a virtual level using to-day computer technologies.

Key words: Museum of the Bohemian Paradise in Turnov / International Jewellery Symposium Turnov / garnet jewellery / contemporary jewellery

JEWELLERY OF BARONESS ULRIKE VON LEVETZOW

Radek Hanus, Pavel Hladký

The jewellery of baroness Ulrike von Levetzow belongs to the most significant jewellery with Bohemian garnet. It is a very rare set of extraordinarily big Bohemian garnets. In 2018, a detailed historical/material analysis and restoration of the whole set took place. High gold fineness of the whole jewellery was confirmed by means of X-ray fluorescence analysis. The experts managed to discover that the paired bracelets were very likely not created in the same time, although they are visually practically identical. Further, the jewellery stones were examined which were identified as Bohemian garnets from the Central Bohemian Uplands.

Key words: Regional Museum and Gallery in Most / Ulrika von Levetzow / jewellery set with Bohemian garnet / gemological identification / analyses / conservation and restoration