Pricing Aspects of Amber: Consumer Characteristics and How They Determine the Value of Raw Materials

Petro Baranov *[a], Olena Slyvna **[b], Liudmyla Chernysh *[c]**

* D.G., Professor, Dnipropetrovsk Scientific Research Forensic Center of the MIA of Ukraine, Dnipro, Ukraine, ORCID: https://orcid.org/0000-0002-3367-4277, e-mail: pn2dsbaranov@gmail.com

** PhD (Geol.), Dnipropetrovsk Scientific Research Forensic Center of the MIA of Ukraine, Dnipro, Ukraine, ORCID: https://orcid.org/0000-0002-7063-1938, e-mail: e.slivna@gmail.com

*** Dnipropetrovsk Scientific Research Forensic Center of the MIA of Ukraine, Dnipro, Ukraine, ORCID: https://orcid.org/0009-0009-8958-8528, e-mail: super.ndkc@ukr.net

[a] Writing – original draft, project administration, methodology, supervision.
[b] Writing – original draft, resources.
[c] Writing – original draft, validation, visualization.

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This study aims to conduct an integrated analysis of the amber market and determine the aesthetic and economic relationship between the characteristics of raw amber, such as shape, color, clarity, impurities, cracks, and inclusions, as well as the characteristics of amber products as perceived by consumers. The topic is relevant since expert studies on determining the cost of raw amber have failed to consider its pricing consumer characteristics. This poses a risk of not complying with the basic principles of forensic examination: objectivity and completeness of research. The authors consider the mechanism for assessing the quality of raw amber and its cost, taking into account the active price lists of Ukraine, and also identify consumer characteristics affecting the cost of amber products. The validity of the results and conclusions is ensured by using a set of general scientific and special research methods. Existing difficulties in determining the cost and peculiarities of modern expert

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evaluation systems have been identified. The scientific novelty of this study lies in the discovery that, through experimental work and theoretical calculations, the characteristics of amber establish an aesthetic and economic connection with each type of product, enhancing the perceived value of each individual item. The qualitative characteristics of amber determine its cost in the market and become the main factors influencing pricing.

Keywords: *amber; raw materials; product; consumer characteristics; cost; price list; market.*

Research Problem Formulation

The modern amber market is split into two primary segments: products and raw materials. The first segment contains products that are actively advertised on commercial websites providing information on consumer characteristics of amber (color, clarity, impurities, cracks, and inclusions), geometric (dimensional) data, and price.

The second segment, raw materials, is less noticeable in advertising. It involves professionals forming pricing policies and strategies for future products. However, it is worth pointing out that there is a certain gap between these segments. This is because the price lists do not explain how the cost of raw materials is formed.

To resolve this issue, keep in mind that the cost of products equals the price of raw materials plus the production cost. Consumer characteristics of amber (aesthetic characteristics and optical effects) function as a bridge between raw materials and finished products. Therefore, by comparing prices and product characteristics, you can make an objective estimate of the cost of raw materials.

Analysis of Essential Researches and Publications

An important aspect of market relations between the mining, processing, and trade industries is how consumer characteristics significantly impact the cost formation of raw amber. This issue captures the interest of both Ukrainian [1] and foreign [2] researchers, indicating its relevance in the context of global economic processes.

Mining enterprises are primarily guided by price lists based on the costs linked to geological exploration, extraction, and sorting of amber. These price lists tend to be stable, undergoing minor adjustments only at the beginning or end of the calendar year. The main problem, however, is the lack of clear criteria for objectively determining amber grades [3]. This fact calls into question the fairness and transparency of pricing in the amber market.

1 Беліченко О. П., Ладжун Ю. І., Татарінцев К. В., Гаєвський Ю. Д., Максюта О. В., Кравченко М. О. Сучасний стан та динаміка розвитку ринку бурштину. *Коштовне та декоративне каміння*. 2021. № 1 (103). С. 20—26. URL: https://www.gems.org.ua/jurnal/archive/2021/N1(103)/image/stat4.pdf (date accessed: 10.03.2025).

2 Rippa A., Yang Y. The Amber Road: Cross-Border Trade and the Regulation of the Burmite Market in Tengchong, Yunnan. *TRaNS: Trans-Regional and National Studies of Southeast Asia*. 2017. Vol. 5. Is. 2. Pp. 243—267. DOI: 10.1017/trn.2017.7 (date accessed: 10.03.2025).

3 Баранов П. М., Шевченко С. В., Коротаєв В. М. Гемологія: діагностика, дизайн, обробка, оцінка самоцвітів : підручник. Вид. 2-ге, перероб. і допов. Дніпро, 2019. 210 с.

Research and commercial organizations analyzing the amber market record significant price fluctuations throughout the year and seek to identify factors leading to these changes. These factors include seasonal fluctuations, fashion trends, as well as political and economic upheavals [4]. Moreover, these studies often overlook consumer characteristics that can significantly influence product perception and, consequently, its cost.

For this reason, currently, there is a significant lack of understanding of how the consumer characteristics of particular products impact the cost of raw materials. This lack of a clear link between consumer characteristics and price fluctuations in the raw amber market requires further study and systematization of data, which will contribute to more informed pricing and improved market strategy, and will benefit both producers and consumers.

Article Purpose

The Article's Purpose is to comprehensively analyze the amber market and understand the aesthetic and economic ties between the characteristics of raw materials (shape, color, clarity, impurities, cracks, inclusions) and consumer characteristics of products. This will give you a complete idea of the cost of products and lay the groundwork for addressing practical and theoretical tasks. Specifically, analyzing factors influencing the cost of raw materials will positively impact the results of expert research, research work, and educational activities of students and postgraduate students.

Research Methods

General scientific and special methods of scientific cognition serve as the methodological foundation for the research.

Main Content Presentation

Throughout the history of human society, amber (due to its decorative characteristics and variety of colors) has earned a significant place in the market of precious and semi-precious stones.

Amber is an important resource for the Ukrainian economy, as it is used in various industries, from jewelry industry to medicine.

The ruling of the Cabinet of Ministers of Ukraine No. 827: *On Approval of the Lists of Minerals of National and Local Significance* [5] dated December 12, 1994, defines amber as minerals of national importance, raw material jewelry, and gem. As defined by the Law of Ukraine No. 637/97-BP: *On State Regulation of Mining, Production and Use of Precious Metals and Precious Stones and Control Over Operations With Them* dated November 11, 1997 [6], raw amber falls within the group of precious stones of organogenic origin (pearls and amber),

4 Kelly J. Amber growth turns red as oversupply knocks value. *Financial Times.* 30 May 2019. URL: https://www.ft.com/content/5217f05a-5f8d-11e9-9300-0becfc937c37 (date accessed: 10.03.2025).

5 Про затвердження переліків корисних копалин загальнодержавного та місцевого значення : постанова КМУ від 12.12.1994 р. № 827 (зі змін. та допов.). URL: https://zakon.rada.gov.ua/laws/show/827-94-%D0%BF#Text (date accessed: 10.03.2025).

6 Про державне регулювання видобутку, виробництва і використання дорогоцінних металів і дорогоцінного каміння та контроль за операціями з ними : Закон України від 18.11.1997 р. № 637/97-ВР (зі змін. та допов.). URL: https://zakon.rada.gov.ua/laws/show/637/97-%D0%B2%D1%80#Text (date accessed: 10.03.2025).

peculiarities of accounting, storage, and use of which are provided by the Ministry of Finance of Ukraine [7].

Accordingly, amber is a precious stone of organogenic origin and the only precious stone mined in Ukraine. Therefore, amber evaluation is one of the most common types of gemstone valuation in Ukraine today and requires modern techniques and methods.

A required component for determining the cost of a gem is the classification of its main consumer characteristics according to a quality grading scale. This procedure considers all essential factors, including historical, cultural, and aesthetic ones. Only by considering these factors can a reliable conclusion be made.

Thus, amber evaluation means defining consumer characteristics of stones as a product, its qualitative and quantitative characteristics, as well as verifying their adherence to established Ukrainian and international expert evaluation systems.

The cost of gems is determined by the price lists in effect at a specific point in time. The quality of amber in raw materials is assessed under ДСТУ 8847:2019 [8]. The cost of amber in raw materials and in products is assessed in compliance with the reference edition and bulletin: *Price Guide for Precious and Decorative Stone* [9], which issues the State Gemmological Centre of Ukraine (SGCU), established under the Ministry of Finance of Ukraine.

Amber is one of the oldest gemstones, which was used thousands of years ago to create women's jewelry. Although amber is not a natural stone, but rather an ancient resin, its jewelry characteristics do not diminish. On the contrary: amber has a huge range of shades. These are not only honey-yellow and brown, but also very dark colors up to black, milky white, and even rare green and blue. Its internal patterns, inclusions, bubbles, and various degrees of clarity give it extraordinary originality.

There is a huge number of amber species in the world. Their cost varies tenfold. Therefore, it is quite evident that the question arises: what are the criteria for assessing the cost of this amazing organic stone and products made from it?

The main feature of a stone made of hardened resin is the uniqueness of each specimen. There are no two identical amber stones in the world. They differ in color and pattern, and the color palette is represented by a variety of shades. Stones with a centuries-old history of existence that have acquired a unique matte texture are a real treasure attracting collectors. However, the value of the organic-origin mineral lies not only in its unique appearance and exclusivity of each specimen.

There are long-held principles of amber expert evaluation. They stem from the historical experience of using this stone by humans and encompass four main factors: *color, clarity, cut,* and *carat weight* [10].

7 Про Правила торгівлі дорогоцінними металами (крім банківських металів) і дорогоцінним камінням, дорогоцінним камінням органогенного утворення та напівдорогоцінним камінням у сирому та обробленому вигляді і виробами з них, що належать суб'єктам господарювання на праві власності : постанова КМУ від 04.06.1998 р. № 802. URL: https://zakon.rada.gov.ua/laws/show/802-98-%D0%BF#Text (date accessed: 10.03.2025).

8 ДСТУ 8847:2019 Бурштин-сировина. Загальні технічні умови. [Чинний від 01.07.2020]. Київ, 2020. 8 с.

9 Довідник цін коштовного та декоративного каміння : бюлетень / ред. А. М. Ткаленко. Київ, 2024. № 4 (63). 44 с.

10 Николаенко С. Критерии оценки изделий из янтаря: особенности и принципы / Новости Украины : вебсайт. 12-12-2018. URL: https://replyua.net/123453-kriterii-ocenki-izdeliy-

These factors are considered simultaneously:

- *natural stone color.* Blue amber is the most expensive one, which is not easy to find. The second most expensive is matte amber, light yellow. The darker the color, the lower the price of amber;
- *clarity. A* "pure" stone, through which the sun's rays make their way, will cost less than its matte "competitor";
- stones' *quality of cutting*. Smooth round beads without flaws can be sold at the highest price. Deformed ones with spalling or cracks diminish the cost of both raw materials and products.
- *carat weight:* the weight of a single bead or the product as a whole.

Another important factor in determining the cost of amber is the *presence of inclusions*. Fragments of plants or insects trapped in resin confirm the millennial age of the natural stone. Inclusions give the stone a sense of exclusivity and uniqueness, making it an exceptional piece to include in any collection of precious minerals.

Thus, the price of amber products is based on comprehensive research into all of the above factors.

In contrast, according to the current price lists [11] of the State Antimonopoly Committee of Ukraine (SACU), the color of amber is not given its proper consideration when determining its quality and cost. In such price lists, the amber quality criterion "color" is presented as "any coloring", greatly reducing its artistic value.

Moreover, the price lists outline the clarity of amber ambiguously ("from clear to opaque"). We observe similar ambiguity in the description of other characteristics (such as texture, shape, and surface of a sample: *see Table 1*).

This issue has already been discussed in more detail [12].

Table 1

Qualitative characteristics of amber as set forth in SACU price lists and consumer characteristics of amber

Parameters of price lists	Consumer characteristics
Carat weight (*determined)*	Shape and artistry
Shape (biphasic)	Color
Texture (biphasic)	Clarity
Impurities (biphasic)	Size
Cracks (*determined*)	Inclusions and their uniqueness
Surface (biphasic)	Aesthetic effects
Color (not determined)	Cracks
Clarity (not determined)	
Inclusions (not determined)	

iz-yantarya-osobennosti-i-principy.html (date accessed: 10.03.2025).

11 Довідник цін … .

12 Kirin R. S., Baranov P. M., Shevchenko S. V., Korotayev V. M. Method of price formation of amber samples on the basis of gemmological-consumer indicators. *Journal of Geology, Geography anf Geoecology*. 2022. Vol. 31. Is. 2. Pp. 321—332. DOI: 10.15421/112230 (date accessed: 10.03.2025) ; Баранов П. М., Сливна О. В., Коротаєв В. М. Прейскуранти на бурштин, їх значення в ринковому та плановому регулюванні економіки. *Криміналістичний вісник*. 2024. Т. 41. № 1. С. 32—43. DOI: 10.37025/1992-4437/2024-41-1-19 (date accessed: 10.03.2025).

An analysis of Table 1 has demonstrated that out of the entire list of consumer characteristics, only two parameters are well-defined in the price lists: carat weight and cracks. Gemologically speaking, these documents fail to include characteristics defining amber as a gem, let alone a precious stone. This shows that it is impossible to determine the cost of raw amber and amber products based on the available price, since they do not specify principal qualitative characteristics of raw amber: color, shape, and clarity.

The second column of Table 1 presents the consumer characteristics of amber in products. These characteristics are common to both raw materials and products, since there is a principle of characteristic inheritance (these characteristics affect the pricing of both raw materials and products) [13] between raw materials and finished products.

In natural conditions, the *shape* of amber usually has irregular outlines and can be isometric, flat, or slightly elongated. There are also samples of an indefinite (amoebic) shape.

The *surface* of natural amber is often uneven and covered with an oxidation crust. Various depressions or even holes are not uncommon. Therefore, when a perfectly symmetrical shape is required, it is logical that the cutting process will result in considerable material loss. The more rounded the future product's shape, the higher the requirements for the size and thickness of the raw amber. Two samples of the same weight but different shapes will be offered at varying prices. Beads demand the highest requirements for the shape and size of the raw stone, so round parts are always more expensive than flat or thin ones.

Experimentally proven results show that the shape of samples plays a pivotal role in choosing a technological (design) solution [14], for instance:

- isometric samples (ratio of dimensions: 1:1:1) are used to make balls, beads, and figurines;
- flat samples (ratio of dimensions: 0.3:0.3:1) are used for cameos, healing beads, mosaics, intaglios;
- elongated samples (ratio of dimensions: 0.3:1:1): for figurines and healing beads;
- amoeboid samples: for original works;
- specimens in the form of droplets within a natural crust and without mechanical damage are considered collector's items.

The above varieties in shapes and their applications are typical for small samples (5–10 g). Large samples (weighing more than 50 g) can be used to produce smaller roughs for specific products. This method is usually employed by technologists for the manufacture of beads when it is necessary to ensure the consistency of color, shades, pattern, and clarity for all beads.

To illustrate the above, let's consider one isometrically shaped amber sample weighing 500 g, which can be used to

13 Баранов П. М., Сливна О. В., Шевченко С. В., Кірін Р. С. Критерії оцінки якості бурштину на основі принципу порівняння зі споживчими властивостями. *Збірник наукових праць Національного гірничого університету*. 2021. № 67. С. 125—135. DOI: 10.33271/crpnmu/67.125 (date accessed: 10.03.2025).

14 Баранов П., Сливна О. Роль дизайнерських рішень при експертизі бурштину. *Сучасні напрямки розвитку судової експертизи та криміналістики* : зб. Всеукр. наук.-практ. конф. з нагоди 110-річ. діяльн. ОНДІСЕ Мін'юсту Укр. (Одеса, 05.09.2024). Одеса, 2024. С. 47—51. URL: http://ndekc.lviv.ua/pdf/311020242.pdf (date accessed: 10.03.2025).

make a ball with a diameter of 6.45 cm (weight 149.88 g). In the second case, the 8K principle is applied. This means that each cube is sliced along three mutually perpendicular planes. The same sample is used. From this, 8 amber blanks can be obtained. 8 balls with a diameter of 3.2 cm can be made of them. Alternatively, you can apply the 8K principle to eight finished cubes. As a result, you will have 64 cubes that can be used to make 64 balls, each with a diameter of 1.6 cm. Applying the 8K principle to these 64 cubes again will produce 512 balls, each with a diameter of 0.8 cm.

In this case, the forecasted cost of finished products will be equal to the amount shown in Table 2.

Table 2

The cost of products that can be made from one amber sample weighing 500 g

Quantity of balls	Diameter, cm	Product, pcs.	Cost, $
1	6,45	Ball	590
8	3,20	8 balls	167 × 8 = 1336
64	1,60	3 necklaces with 21 beads in each	2326 × 3 = 6978
512	0,80	10 necklaces with 21 beads in each	1079 × 10 = 10 790

The above examples of shaping the described amber sample do not represent all possible options. In addition to those listed, one can also create quadrangular prisms, plates, etc., from an isometric-shaped sample.

The flat shape and dimensional-weight values of natural amber specimens also directly affect the choice of the future product. For instance, small fractions (starting from 0.4 g) are used to make Pompeii necklaces (polished and unpolished), healing necklaces, brooches, cameos, and cabochons. Samples of amber with a thickness of more than 1 cm are suitable for making cubic blanks for balls.

The *size of amber* is a characteristic that is fundamental to the formation of a technological project for jewelry production. Although weight and shape are of paramount importance, especially for isometric specimens, it is the size of amber that determines many aspects of its classification and pricing [15].

If you know the ratio of dimensions (1:1:1) and the weight of a sample, you can accurately calculate its dimensions. For example, an isometric cube weighing 4.9 g will measure 1.65×1.65×1.65 cm. However, this method is inappropriate for other shapes, such as flat, elongated, or amoeboid, since their ratio of dimensions is often inconsistent. Knowledge of the exact size of the samples is therefore critically important because it directly affects the scope and type of products.

From an economic perspective, the key factor is the yield of a usable product. Yield is calculated as the ratio of the weight of finished products to the weight of used samples, expressed as a percentage. For example, for the production of balls, an isometric mold with a yield of more than 30% is the most profitable. If this figure is less than 30%, the production of balls becomes economically unfeasible.

Accordingly, determining the shape and size of amber samples affects both the

15 Класифікація бурштину / Янтар Полісся : вебсайт. URL: https://yantar.ua/ua/klasifikatsiya-yantarya-.html (date accessed: 10.03.2025).

quality of the final product and its subsequent economic efficiency.

The *color of amber* has a wide spectral range from white to black. Experts estimate that there are nearly 350 color shades of amber. The absolute leaders in this spectrum of colors are yellow, golden yellow, and golden orange. This color range contributed to the emergence of the *amber color* concept ("amber hair", "amber honey", "amber fruit"). Amber is known as the "sun stone" due to the warm tones of the stone and its ability to radiate warming light [16].

The cost of amber is mainly estimated by its color, according to the current market research.

In fact, the price of amber depends on its color, clarity, and how it refracts light. The brighter the color, the purer the amber, and the higher the light refraction, the more valuable it is. This is unaffected by its clarity and milkiness. Conversely, cracks, inclusions, or other imperfections, such as uneven surfaces or visible bubbles, reduce the value of amber. The most expensive and rarest is blue-green amber. However, it is important to acknowledge that this perspective is held by collectors, connoisseurs, and museum staff.

The domestic market analysis of beaded necklaces demonstrates that the most expensive are those made of landscape amber, followed by honey amber (with a clear lead) and lemon, cognac, and black amber (*see Figure*).

Let us point out that this conclusion applies only to ball beads and does not apply to other types of jewelry. To illustrate the above, research findings revealed that cognac and black amber are the most favored choices for the "diamond facet" necklace.

Lemon amber looks even better in such a necklace, as it has a more pronounced *"diamond facet"* effect. The cost of the necklace is also distributed in the same way: the most expensive necklaces are those made of lemon-colored amber, followed by cognac and black amber.

Hence, when discussing the price of amber, we should take into account what products it is intended for (or if it will become a collector's item).

Another advantage for designers and lapidaries is *amber's clarity*. The clarity of amber can vary widely: from almost opaque to extremely clear. It depends on how much light passes through this stone of organogenic origin, substantially determining its visual appeal. Amber lapidaries have long made use of its clarity to create an aesthetic effect through an internal design (pattern). For the first time, the technique of in-depth relief (counter-relief) was used in crafting flat intaglio cabochons and intaglio frames for the creation of the Amber Room.

Later, amber's clarity made it ideal for crafting intaglios. The perfect clarity combined with the cognac or lemon color gives amber products a special artistic quality and a sense of mystery. Such products remain among the most expensive.

Therefore, amber's demand and value are determined by its clarity. Clear amber is highly appreciated because it transmits light, demonstrating any inclusions inside. This characteristic enhances the visual appeal of amber and makes it more desirable for buyers. Although opaque amber is less valuable than the clear one, it has its own charm: it is frequently used in carvings and in larger decorative products. Such an opaque, cloudy kind of amber emphasizes

16 Забарвлення та прозорість бурштину : блог / Янтар Полісся : вебсайт. 29.09.2017. URL: https://ukrburshtyn.com/ua/blog/rastsvetka_i_prozrachnosts_yantarya.html (date accessed: 10.03.2025).

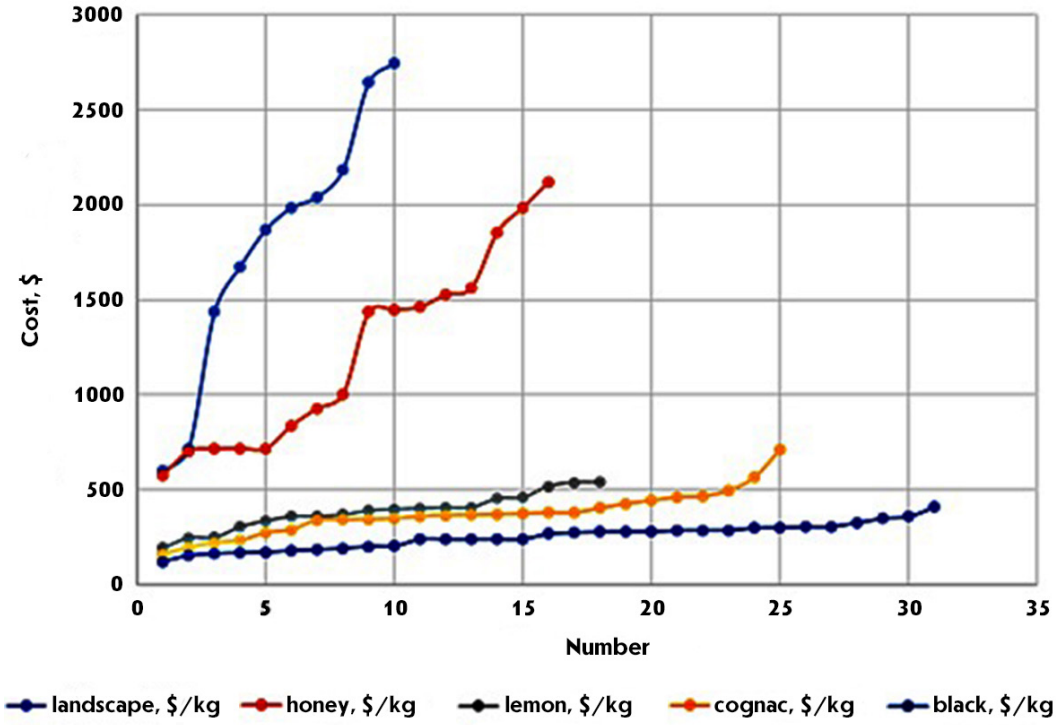

Fig. Chart showing the cost of raw amber for beads and balls.

the uniqueness of the jewelry's texture and the rest of objects.

As an example, the price of white Baltic amber (landscape amber) is also influenced by whether it is clear, semi-matte, or matte. It is the rarest and therefore the most valuable type. Overall, milky amber is more expensive than clear amber: it is almost 10 times more expensive than its yellow counterpart, but its quality is also important.

Amber's clarity depends on the number of air bubbles and various inclusions in a stone. Currently, there is a system of evaluation based on this criterion: a fractional grading system [17]. In the East, opaque varieties of gem have always been appreciated. In European countries, another opinion is prevalent: the fewer extraneous inclusions, the more expensive amber. The exception is clear stones containing fossilized insects that are clearly visible. These stones can cost several times more than amber of the same quality.

Research findings on calculating the cost of one gram of amber in products indicate that product cost depends on the cost of raw materials and the specific type of product (*see Table 3*).

17 Sedawie R. Amber Gemstone: Properties, Meanings, Value & More / Gem Rock Auctions : web. 8 May 2018. URL: https://www.gemrockauctions.com/learn/a-z-of-gemstones/amber-information?srsltid=Afm BOooJjM4rnHowip-GKyIXlVwM-tiNi8cKY7l9y2_cOXUs8qlJz3Yp (date accessed: 10.03.2025).

Table 3

Amber's cost in products

No.	Product	Cost, $/g	Feature
1	Balls	2,8–4,1	Honey color
2	Ball bead necklace	10–25	Honey color
3	Ball bead necklace	2,4–4,9	Cognac color
4	Cameos, figurines	17–24	Honey color
5	Intaglios	30–60	Cognac color, clear
6	Souvenir specimens	2,4–41,9	Natural drop shape
7	Samples with inclusions	12,1–205,8	Rare, unique inclusions
8	Healing necklace	0,28–0,73	Raw
9	Pebble Necklace	0,83–2,21	Lemon, cognac color

The aforementioned results demonstrate that each type of amber is evaluated comprehensively because it represents a specific future product.

Cracks are an essential quality criterion for amber because they significantly impact the manufacturing process and, consequently, the value of the final product.

Based on their origin, they are classified into three types: mechanical cracks, interlayer cracks, and stress cracks (umbrella cracks).

Mechanical cracks are formed as a result of dynamic geological processes (compression of layers, collapses, tectonic shifts), extraction, and enrichment. These cracks are divided into ancient and young. Cracks can be either open or tight-closed. Cracks formed by natural processes are most often filled and marked by mechanical material (dirt). Young cracks are not like those described above because they do not have any inclusions or craquelure.

Interlayer (interbond) cracks are essentially the boundary between two resin layers. They are often marked by foreign impurities. Such cracks penetrate the sample to a considerable depth, reducing its quality characteristics. This type of crack is characterized by its sinuous shape. The deeper the cracks are, the more often they pinch out and turn into barely noticeable lines.

Mechanical and interlayer cracks in samples significantly reduce the quality and value of amber and negatively affect its cutting.

Stress cracks (also called *umbrella cracks*) are rounded formations that do not extend to the surface of the sample. Sometimes they are formed around foreign bodies (inclusions, organic substances) as a result of internal local stress of amber. Such "umbrellas" are to a certain extent decorative and in large quantities create the effect of sparkling amber, increasing the stone's cost.

Thus, the presence or absence of cracks in amber samples affects the cost of the future product and determines its specific appearance. Nevertheless, the final outcome depends entirely on the artist's imagination and skill.

Impurities in amber are organic substances which became trapped in the liquid resin at the moment it was exuded from the tree and during its subsequent accumulation [18]. Excessive number of organic impurities in amber makes it dark

18 Amber: A window to the past / Amber-fossils : web. URL: https://www.amber-fossils.com (date accessed: 10.03.2025).

gray, more often: black with a yellowish-green hue [19]. In products such amber is called "meteorite".

Gaseous impurities (depending on the size and quantity) result in stone cloudiness. Due to numerous microscopic impurities of fluid and amber gas, it becomes opaque and milky white.

Inclusions are whole insects, arthropods or shellfish or their fragments, as well as birds' feathers in amber [20]. Hence, following technical guidelines, amber's inclusion is foreign bodies (substances) that adversely affect the quality of raw materials. Meanwhile, the presence of inclusion in amber multiplies its cost several times [21].

Rare or unique inclusions are especially popular. Amber with such inclusions is considered a collector's item: it is sold as a rarity at special auctions and forums. Moreover, pyrite mineral inclusions form a kind of sparkling amber. This aesthetic (optical) effect is also in great demand among connoisseurs of exotic jewelry.

Let us pinpoint that inclusions in amber serve as a source of knowledge for scientists in many areas.

Considering the points discussed, it is clear that when examining amber, characteristics such as shape, color, clarity, size, and the presence of inclusions cannot be ignored, as these are the key criteria used to determine its market price (whether raw or processed).

Conclusions

This research has shown that consumer characteristics of raw amber (shape, color, clarity, impurities, cracks, inclusions) form an aesthetic and economic relationship with each type of product. These characteristics emphasize the advantages of a specific product and play a pivotal role in its perception. Qualitative characteristics of amber determine its cost in the market and become principal factors influencing its pricing.

The principle of inheritance dictates that consumer characteristics of amber not only affect the cost of finished products: they are crucial for the price of raw amber [22]. This circumstance should be necessarily considered when assessing raw material costs.

Цінові аспекти бурштину: споживчі характеристики та їхнє значення для визначення вартості сировини

Петро Баранов, Олена Сливна, Людмила Черниш

Мета статті — провести комплексний аналіз ринку бурштину та з'ясувати естетико-економічний зв'язок між характеристиками сировини (форма, колір, прозорість, включення, тріщини, інклюзи) і споживчими характеристиками виробів. Доцільність теми обумовлено

19 Sedawie R. Op. cit. URL: https://www.gemrockauctions.com/learn/a-z-of-gemstones/amber-information?srsltid=AfmBOooJjM4rnHowip-GKyIXlVwM-tiNi8cKY7l9y2_cOXUs8qlJz3Yp (date accessed: 10.03.2025).

20 Amber Inclusions / Baltic Amber SOS : web. URL: https://ambersos.com/collections/amber-inclusions?srsltid=AfmBOooenAN0nC_nQzR7ajQvoXZ9NOq2ZhfFO_NFZER2uaRUve2DNnKL (date accessed: 10.03.2025).

21 What is the Price of Natural Amber / Phoenix Amber : web. URL: https://www.phoenixamber.cz/en/blog/price-of-natural-amber/?srsltid=AfmBOorPZliqDuYqhRyvAeOxJNuybICjQZy0QLGxASriWnfN73VJLSvS (date accessed: 10.03.2025).

22 Amber Prices / Natural Baltic Amber : web. URL: https://natural-baltic-amber.com/amber-prices/ (date accessed: 10.03.2025).

неврахуванням ціноутворювальних споживчих характеристик бурштину-сирцю під час експертних досліджень із визначення його вартості, унаслідок чого є ризик не дотримати основних принципів судової експертизи — об'єктивності й повноти досліджень. Розглянуто механізм визначення якості бурштину-сирцю та його вартості з урахуванням прейскурантів, що діють на території України, виявлено споживчі характеристики, що впливають на вартість виробів з бурштину. Достовірність отриманих результатів і висновків забезпечено застосуванням комплексу загальнонаукових та спеціальних методів дослідження. Виявлено наявні труднощі у визначенні вартості й особливості сучасних систем експертного оцінювання. Наукова новизна дослідження полягає в тому, що під час експериментальних робіт і теоретичних розрахунків з'ясовано, що характеристики бурштину створюють естетико-економічний зв'язок із кожним видом виробів та увиразнюють цінність кожного конкретного виробу. Якісні характеристики бурштину зумовлюють його вартість на ринку та стають основними чинниками, що впливають на ціноутворення.

Ключові слова: *бурштин; сировина; виріб; споживчі характеристики; вартість; прейскурант; ринок.*

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The authors declare no conflict of interest.

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