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BAS-RELIEF AS A DECORATIVE ART TECHNIQUE: TECHNOLOGY, MATERIALS, AND ITS ROLE IN CONTEMPORARY INTERIOR DESIGN

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ABSTRACT

This article examines bas-relief (barelyef) as a decorative-sculptural technique used to create three-dimensional compositions on interior walls. The study describes the materials, tools, and the step-by-step technological process required to produce a gypsum-based bas-relief, from surface preparation to the final varnishing stage. Practical recommendations for beginners are provided, including material selection, small-detail modelling, and lighting design that enhances the visual perception of the finished relief. The findings indicate that gypsum-based putty compositions, combined with appropriate primers and sculpting tools, allow even inexperienced practitioners to create durable and expressive wall reliefs, confirming the technique's continuing relevance in modern interior art.

Keywords

bas-relief, barelyef, decorative sculpture, gypsum putty, wall relief, interior design, sculptural modelling technique.

INTRODUCTION

Bas-relief is a sculptural technique in which a raised image is formed on a flat background, so that the depicted forms project only slightly from the surface while remaining physically attached to it [1, 4, 6]. Since antiquity, bas-relief has been used to decorate temples, palaces, and public buildings; surviving examples from ancient Rome and Greece, the carved ornamentation of mosques and religious complexes across Central Asia, and the refined stone reliefs of Spain demonstrate the enduring artistic and cultural value of the technique [4, 6]. In present-day interior design, bas-relief has regained popularity as a means of creating an original and expressive wall surface

without relying on painted or printed imagery. Unlike flat decoration, a relief composition interacts with light and shadow, producing a dynamic visual effect that changes throughout the day depending on the direction and intensity of illumination [5]. Since independence, Uzbek sculptors have also devoted considerable attention to embodying elements of national ornament and imagery within bas-relief compositions, which may be regarded as one of the achievements of contemporary Uzbek sculptural art [10]. The purpose of this study is to describe, in a systematic and reproducible manner, the materials, tools, and technological sequence required to create a gypsum-based bas-relief on an interior wall, and to outline the methodological value of this technique for teaching decorative and applied art.

MATERIALS AND METHODS

Materials for bas-relief modelling. Gypsum (calcium sulphate dihydrate) is a lightweight, fast-setting mineral binder that has been used as a sculptural and finishing material since antiquity; when mixed with water it hardens into a smooth, workable mass that reproduces fine surface detail and takes paint evenly, which makes it particularly suitable for wall-relief modelling [9]. A wide range of gypsum-based finishing putties may be used to model a bas-relief. Each craftsman tends to favour a particular brand according to working properties, drying time, and cost. The most commonly recommended materials are the following [2, 3]:

Knauf Uniflot - highly durable and plastic; allows deep relief to be modelled and sets relatively quickly, which speeds up the completion of the work.

Fugen - a lower-strength, more economical alternative (approximately three times cheaper than Knauf Uniflot), though more prone to defects when cut.

PUFAS - a cellulose-fibre gypsum putty with a working time of approximately sixty minutes; it can be applied in any layer thickness, cuts cleanly, and sands smoothly.

Rotband - used for the base layers, combined with Shitrok for the finishing layers.

Akril Putz (Poland) - a ready-mixed acrylic putty applied in gradual layers; detailing requires about an hour or more depending on ambient humidity.

Satentek - convenient for finishing, producing a smooth surface; suitable for reliefs projecting three to five centimetres.

Volma sloy - a durable, smooth-setting putty suitable for reliefs projecting seven to nine centimetres.

For attaching and reinforcing the relief layers, deep-penetration primers and adhesive concentrates are required. A moisture-resistant primer concentrate (such as the PUFAS range) is compatible with all mineral substrates, including plywood and fibreboard panels, while a damp-protective primer (Aquastop) is used for surfaces with weakened structural strength. These bonding formulations serve three purposes: improving the adhesion of the substrate before work begins; creating a rough surface for building up deep relief layers over previously dried material; and evening out surface absorbency prior to painting so that the applied colour lies uniformly.

Gluing the backing (lining) for the bas-relief



Tools. The tools required for bas-relief work fall into two categories: those used to apply the modelling compound and remove excess material, and those used for fine detailing and correction:

Stainless-steel metal trowel (molga) - used for smoothing and forming shallow relief across large surfaces.

Plastic trowel (mastixin) - used for building up deeper or broader relief areas, since the compound slides more easily along a plastic surface than a metal one.

Spatulas (shpatel) - the primary technical tool for applying the base layer of compound to the wall, removing excess material, and filling areas requiring additional depth.

Palette knives of various shapes and sizes - used to shape the composition, remove excess compound, and form the required relief.

Sculpting tool sets - assorted small knives and a double-ended professional

sculpting tool used for fine detailing and drawing precise contours; recommended for anyone planning several relief compositions.

Medical scalpel - provides highly precise cuts; professional sculptors typically keep several scalpels of different sizes and blade shapes.

Wood-carving chisels - used to cut freshly applied gypsum, available in a range of blade shapes and sizes matched to the required cut.

A confectionery (icing) syringe - useful for adding small amounts of compound to areas that require extra material after the main shape has been cut; several syringes should be kept on hand, as they wear out quickly.

Mastixin



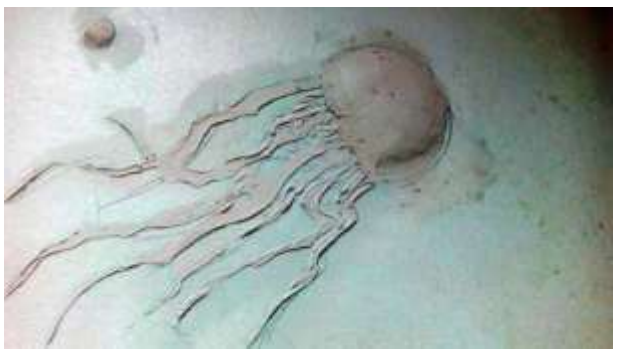
General technological procedure. Before beginning work, the wall must be cleaned and levelled, and the surface must be completely dry. For larger compositions, priming the wall beforehand improves adhesion of the relief layer. The overall procedure comprises the following steps [2, 3, 5]: Select and print the image to be reproduced on the wall, using a durable, moisture-resistant material such as plastic or thick cardboard so that the template can be reused if necessary. Mix the gypsum putty to a firm, workable consistency comparable to the base layer; it must be neither runny nor prone to cracking. Fix the template to the wall (double-sided tape may be used) and, with a spatula, fill the outline with the mixed compound (the base ingredient of the mixture being gypsum powder). After thirty minutes to one hour, remove the template and trim away any



broken or uneven edges. Where deeper relief is required, add further compound in layers matching the intended composition. Allow the work to set for one hour or more, depending on the composition of the material; while it remains sufficiently plastic, refine the shape using a knife, chisel, or similar tool, removing excess material. Once the relief has fully dried, sand it with various grades of sandpaper to achieve the desired smoothness. After drying, the finished relief may be coated with varnish for protection and visual finish.

Modelling small details. It is technically easier for beginners to start a composition with a shallow relief and build it up gradually in layers, since this approach allows greater control over the final result. To model a small detail, a limited amount of compound is taken onto the plastic trowel, applied to the required area, and pressed firmly so that it adheres well to the primed wall surface (the primer leaving the surface slightly rough and tacky). Where details are especially fine, such as the tentacles of a jellyfish, it is more convenient to apply the compound with a palette knife than with a trowel. Small elements are worked with 100–200 grams of freshly mixed compound at a time, applied and shaped while it is still workable, since large batches are unnecessary for detailed work. Once the wall-mounted elements have fully dried, which may take several days for thicker relief, sanding may begin. Coarse sandpaper is used first to achieve the required smoothness, followed by fine sandpaper for the final polish. Two days or more may be needed for deeper relief elements such as waves or jellyfish. Dust is then removed with a stiff brush, or by vacuuming if preferred, before applying a deep-penetration primer to the finished gypsum relief in preparation for painting. For reliefs that project no more than two centimetres from the wall, no reinforcing structures are required. Where the projection exceeds two centimetres, screws should be inserted at the planned thickest points; when working with gypsum, these can be manipulated to hold the compound firmly in place and prevent it from sagging. Large-volume elements, such










as fish or shells, which in some areas exceed two centimetres in depth, require screw reinforcement at these points.

Finishing and lighting considerations. The final stage of creating a wall relief is painting. Each practitioner may choose an individual colouring method; a simple water-based emulsion paint (suitable for water-based pigments) is commonly used, allowing the relief to be completed by hand. In this way, a larger composition can be produced by combining reliefs across two adjoining walls. A bas-relief mounted on a wall is shown to greater advantage when illuminated by dedicated, purpose-installed lighting. It is therefore advisable to route the necessary wiring, leaving the cable ends accessible, before levelling and priming the wall. Once the surface has been levelled and primed, lighting fixtures designed to illuminate the relief image can be installed so that the fine detail of the moulded panel becomes visible. This lighting should be considered when planning standard fixtures, since a relief examined under different lighting will not read correctly if this step is neglected.



RESULTS

Applying the described technology, several gypsum-based wall reliefs on a marine theme were produced as practical examples, incorporating fish, an octopus, jellyfish, aquatic plants, and shell motifs. These elements were selected because they combine both large-volume forms (fish, shells) and delicate, thin details (jellyfish tentacles, seaweed), making the composition well suited as a first practical exercise for beginners. The resulting reliefs demonstrate that gypsum putty compositions retain fine surface detail - scales, contours, and textural nuances, after sanding and varnishing, while remaining structurally stable when screw reinforcement is used at points of greater depth. A published example of a comparable composition, the bas-relief panel



“Zhemchuzhina” (“The Pearl”) by the sculptor A. Plyushchev (Krasnoyarsk), illustrates how a themed marine composition can achieve a coherent decorative effect across an entire wall surface. Observation of the completed panels under dedicated lighting confirmed that illumination positioned to graze the relief surface substantially increases the visibility of fine detail compared with standard ambient room lighting, supporting the recommendation that lighting be planned prior to the final wall-levelling stage.

DISCUSSION

The results confirm that bas-relief remains a technically accessible yet artistically expressive method of wall decoration, provided that material selection and sequencing are followed correctly. For inexperienced practitioners, beginning with a shallow relief and progressively layering the composition markedly reduces the difficulty of the work,

since it removes the need to control large volumes of material at once. The choice of gypsum putty brand affects working time and cost rather than the feasibility of the technique itself: faster-setting compositions such as Knauf Uniflot suit time-limited work, whereas more economical materials such as Fugen may be preferred for practice pieces or educational exercises. From a pedagogical perspective, the modelling process closely resembles working with sculptor's plasticine, which suggests that bas-relief can serve as an effective bridge between two-dimensional decorative drawing and three-dimensional sculptural modelling in art education. Its combination of drafting (transferring a template or drawing to the wall), material science (selecting and mixing compounds), and manual sculptural skill (shaping, cutting, sanding) makes it a suitable practical activity for demonstrating an integrated, STEAM-oriented approach to teaching decorative and applied art, in which artistic, technical, and material-based competencies are developed simultaneously [7, 8]. A limitation of the technique lies in its dependence on drying and curing times, which extend the overall duration of a project and require careful planning, particularly for compositions with variable relief depth. Further research could usefully compare the durability and educational effectiveness of different gypsum-based compounds when applied specifically within school or university art-education settings.

CONCLUSION

Bas-relief is a decorative-sculptural technique with deep historical roots that continues to hold clear relevance in contemporary interior art. The technology described in this article - surface preparation, material selection, layered modelling, detailing, sanding, and finishing, combined with carefully planned lighting - provides a reproducible framework through which even inexperienced practitioners can create durable and visually expressive wall compositions. Owing to its combination of technical procedure and artistic modelling, bas-relief also holds considerable value as an integrated practical exercise in art education, bridging drawing, material technology, and sculptural skill.

REFERENCES

1. Barelyef // Vikipediya - erkin ensiklopediya. - URL: https://uz.wikipedia.org/wiki/Barelyef (Bas-relief // Wikipedia - the free encyclopedia)

2. Отливка из гипса на занятиях скульптурой: методическая разработка // Урок.1сентябрь образовательный портал. - 2020. - URL: https://urok.1sept.ru/publication/183279 (Plaster casting in sculpture classes: methodological development // Urok.1sentyabr educational portal)

3. Картины из гипса и художественная штукатурка стен: как сделать своими руками объёмные панно и барельефы // сайт ProDekorSten. - 2024. - URL: https://prodekorsten.com/hudozhestvennaya-shtukaturka/barelef-panno.html (Plaster paintings and decorative wall plastering: how to make three-dimensional panels and bas-reliefs by hand // ProDekorSten website)

4. Когда камень оживает: техника создания скульптуры от гипса к камню // сайт GessoStar. - 2018. - URL: https://www.gessostar.ru/skulptura-ot-gipsa-k-kamnyu/ (When stone comes to life: the technique of creating sculpture from plaster to stone // GessoStar website)

5. Как сделать барельеф самостоятельно: материалы и инструкция // сайт GessoStar. - 2023. - URL: https://www.gessostar.ru/kak-sdelat-barelef/ (How to make a bas-relief yourself: materials and instructions // GessoStar website)

6. Ермилова, Е. Барельеф: от античности до современности. Отличие барельефа от скульптурной живописи // авторский блог. - 2025. - URL: https://www.evgenia-ermilova.ru/blog/basrelief/ (Yermilova, Ye. Bas-relief: from antiquity to modernity. The difference between bas-relief and sculptural painting // author's blog)

7. The STEAM approach: Implementation and educational, social and economic consequences // Taylor & Francis Online. - 2021. - URL: https://www.tandfonline.com/doi/full/10.1080/10632913.2021.1974997

8. Enriching STEAM education with visual art: education benefits, teaching examples, and trends // ResearchGate. - 2024. - URL: https://www.researchgate.net/publication/386066214_Enriching_STEAM_education_with_visual_art_education_benefits_teaching_examples_and_trends

9. Gypsum Plaster - an overview // ScienceDirect Topics. - URL: https://www.sciencedirect.com/topics/engineering/gypsum-plaster

10. Qoraqalpog'iston haykaltaroshligining shakllanishi va rivojlanish bosqichlari: san'atshunoslik fanlari bo'yicha falsafa doktori (PhD) dissertatsiyasi avtoreferati // O'zbekiston Respublikasi San'atshunoslik instituti huzuridagi Ilmiy darajalar beruvchi kengash sayti. - URL: https://ndpi.uz/wp-content/uploads/2018/11/Mambetkadirov_Gavrat_qoraqalpogi.pdf (Formation and development stages of sculpture in Karakalpakstan: abstract of PhD dissertation in art studies // Website of the Scientific Degrees Awarding Council under the Institute of Art Studies of the Republic of Uzbekistan)