

Future Perspectives

With increasing energy demands and environmental concerns, the future of EOR lies in hybrid approaches combining multiple recovery techniques. Digitalization, machine learning, and AI-driven reservoir modeling further optimize EOR strategies, reducing costs and environmental footprints.

Conclusion

The continuous development of EOR techniques is essential for sustaining global oil production. Integrating advanced materials, digital technologies, and environmentally friendly solutions will shape the future of hydrocarbon extraction.

References:

1. <https://www.dnv.com/article/ai-spells-opportunity-and-manageable-risk-for-the-oil-and-gas-industry/>

MURALS AND GRAFFITY IN THE ARCHITECTURE OF A MODERN CITY. ART, FUN OR VANDALISM

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It is hard to imagine the structure of a modern city today without murals – large vivid images decorating the blank walls of architectural facades. The history of murals is essentially the history of monumental painting, since muralism is a type of monumental art that represents painting on architectural structures and other stationary bases. The name itself comes from the Spanish word "Mural", which means "wall painting". As for graffiti, it is practically a modern direction of wall painting, filled with signs and symbols of subcultures. The purpose of graffiti is a kind of graphic expression of an artistically meaningful marking effect - "I was here".

Monumental painting is the oldest form of painting, known since the Paleolithic era for paintings in caves and today used for decoration or to achieve a certain optical effect in modern architectural structures. Numerous examples in almost all cultures that have created developed architecture in combination with sculpture and painting today preserve for descendants the special atmosphere of a particular period. The images display a unique description of scenes from the life of the corresponding period or create an optical effect that complicates or complements the spatial solution due to the perspective image. Examples of such solutions can be found both in the ancient periods of development of Eastern and Western civilizations, and throughout all known styles from Antiquity to modern times. Each period supplemented and developed technology, and also "grew" with

new branches. For example, frescoes, mosaics, and later stained glass appeared, when the role of light in the medieval period in the structure of the temple was the most important.

In modern monumental painting new materials and directions are actively mastered. Murals, graffiti, street art, as well as advertising on banners and any other surfaces in the city structure, have firmly entered the life of a modern person, becoming a kind of decor against the background of architectural structures striving for minimalism and simplicity of forms. Modern architectural objects have gradually lost sculptures, stucco and other plastic elements.

Today, the attitude towards murals and graffiti on the "city's body" is ambiguous, comparable perhaps to the attitude towards tattoos on the human body. It should be noted that for European culture, tattoos were used mainly for branding cattle or marking criminals (outcasts of society), unlike the cultures of southern and western people, where, in this way, belonging to a tribe or clan was designated, as well as a person's place in it.

Graffiti and murals as a new urban anthropological layer have become rich material for sociological and ethnographic research. Experts believe that graffiti is not so much an exchange of symbolic signs within subcultural communities, but a product of globalized culture, an expression of the desire to join the mainstream. Graffiti and muralism have been successfully commercialized and are often used as one of the tools of creative development – to attract tourists, activate squares, neighborhoods and entire districts.

IMPROVING THE DECODING EFFICIENCY OF LUBY TRANSFORMATION CODES BASED ON OPTIMIZED GRAPH REPRESENTATION

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The continuous development of digital technologies necessitates ensuring efficient information exchange between elements of telecommunication systems and networks. Information encoding methods play an important role in these operations. Therefore, it is advisable to use error-correcting codes designed to ensure the reliable transmission and storage of information. A modern example of such coding is Luby Transform (LT) codes [1].

LT codes are based on a graph model, where encoded symbols are formed by combining source symbols, and each encoded symbol is connected to a random number of source symbols (according to the Soliton distribution). The decoding process starts with symbols of degree 1 (i.e., those connected to only one source symbol) and proceeds through the gradual elimination of known values, similar to solving a system of linear equations. The efficiency of this process depends on the