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Sustainable Integration of Religious and Monastic Architecture in Rural and Forest Environments: The Nechit Village Project, Romania

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Abstract

This study presents a sustainable architectural project focusing on the construction of an Orthodox Christian Church and Monastic House in Nechit Village, Borlesti Commune, Neamt County, Romania. The development integrates new construction with the adaptive reuse of existing household annexes, transforming them into functional church facilities while preserving the natural and cultural landscape. Located in a forested area outside the built-up zone, the project emphasizes ecological harmony and efficient land use, with a total built area of 657 sqm on a 5400 sqm site. The architectural solution employs reinforced concrete, hollow brick masonry, and wooden roofing structures—balancing traditional craftsmanship with modern engineering. Energy-efficient systems include localized water supply extensions, controlled wastewater management, and a hybrid heating solution combining electric and solid-fuel systems. The design prioritizes minimal environmental impact and long-term sustainability. This project exemplifies how religious and monastic architecture can serve as a model for sustainable rural development—preserving cultural heritage while redefining planning and design practices within natural ecosystems.