Use of Bivalve Mollusc Residues as Aggregate for the Manufacture of Concrete

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This project aims to reduce environmental pollution and consolidate a proposal that generates short-term income, justified by the current health situation and the ease of obtaining the raw material, through the development of concrete blocks enriched with shells of bivalve molluscs obtained in the province of Sechura. In fact, the shells were collected in the main municipal dump, located outside the province; and, subsequently washed to separate organic and inorganic waste, then in a mixing process of cement, water and calcareous waste, to later develop a drying phase, a block was obtained with optimal characteristics of humidity, density and resistance for use in civil construction processes. Therefore, it is confirmed that the elaboration of concrete blocks enriched with calcareous waste does not damage the strength of the final concrete, because the shells are petrified and adhere to cement and water, resulting in rocks with long-lasting resistance. Finally, it is recommended that, in order to make such blocks, adequate protective equipment should be used and direct contact with the crushed shells should be avoided, as they can cause skin lesions.

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