

Sedimentary rock topic

[Science](#), [Geography](#)



Sedimentary Rocks To the CBRM Council Definition of the Problem The CBRM Council has been experiencing a number of challenges when it comes to the erection of new buildings. Our city is expanding and there is a need for new buildings in order to contain new offices and d residential buildings. The greatest challenge CBRM City council is currently facing is the use of non-durable materials for construction. As such, most buildings collapse within a short time. Moreover, materials that are used for construction are difficult to work with and this has increased the cost of making new constructions. The threats of terrorism in the global world have also necessitated engineers to come up with terrorism resistant buildings. Materials for such projects must therefore be blast resistant. Description of Sandstone In lieu of the above problem, it is quite possible that sandstone, a sedimentary rock, can help CBRM City Council to overcome its construction challenges. This rock is thick-bedded suggesting that it is strong enough to overcome seismic waves . Additionally, the rock can easily be shaped in order to fit different construction needs due to its uneven surface (Takahashi and Tanaka 4). Because of the multitude of its grains, the rock cannot crystallize when it is being shaped into its desired shape. More importantly is the fact that sandstone contains a cementing material which binds the sand grains together. This attribute definitely makes it to lower the cost of using cement when joining different materials together. Although other construction materials have been suffering depletion, sandstone is quite common, and is found in sedimentary basins located throughout the world (Geology 2). In most building and construction sites, it is common to find engineers ordering of tones of sand in order to supplement constructions. However, sandstone

contains sand as its basic particles. This signifies that the overall cost of making a construction will reduce greatly. Sandstone comes in different colors and this makes it easy to decorate buildings without the need to apply paint (Pettijohn 417). Unlike other material, Sandstone comes in colors of yellow, red, orange and brown and this makes it quite easy to make decorations. Case Study As has been said, weak buildings within the CBRM City Council have been constructed from materials that never withstand the test of time. This creates a danger to humanity. This challenge can easily be mitigated by the use of sandstone. Looking at desert architecture like the pyramids of Egypt, one can be able to marvel at the sandstone's ability to withstand so much heat. These enormous buildings have withstood centuries in hot places and have never experienced any cracks. If CBRM City Council can be able to use sandstone as a construction material, then our buildings will stand the test of time. A unique attribute of desert architecture, which makes sandstone to be highly celebrated, is that it is blast resistant. In contemporary times, there is necessity to shield buildings from terrorism and sandstone is the best alternative . Considering the pyramids of Egypt; they are never affected by gravity. In this sense, they never fall even if they are not supported by a block underneath. This resistance to gravity is what makes sandstone to be effective without cement. The decorative aspect of sandstone as visualized in the pyramids of Egypt has made working with the material to be easy (Dott 625). It is quite acknowledged that decoration is normally seen as the final stage of any construction. Decorations cost a lot of money. However, sandstone is easy to work with and one does not need to incur extra expenses to decorate a building. Egyptians only needed to get

excellent artists to draw beautiful pictures on the surface of the sandstone. The decorative aspect can also be visible in the distinct colors that limestone comes through. Suggested Remedies/Mitigation Strategies The challenge that CBRM City Council is facing due to construction problems may be mitigated by the use of alternatives, if the sandstone is not forthcoming. Mining of limestone may be an expensive affair. In this sense, the city council may invest in strategies that can be used to manufacture building materials that bear semblance with limestone. For instance, limestone is composed of iron oxide; calcium carbonate and silica (Chan 104). These are naturally occurring substances. It is quite possible that the city council can invest in a technology that can ensure the artificial manufacture of a construction material that bear semblance with limestone. Due to the fact that cement is available in great volumes, quartz, sand and other substances mentioned above can be cemented in order to come up with a durable construction material. By being innovative in this sense, it is quite possible for the city council to come up with numerous buildings that can last for many years. However, the CBRM City Council does not need to just come up with many buildings in order to overcome the pressure of city life. These buildings have to be strong enough to resist global terrorism. This is the reason as to why an alternative to sandstone can only be its artificial equivalent. Works Cited Chan. Sandstone. Sydney: University of Sydney, 2010. Dott, Robert. " Wacke, graywacke and matrix; what approach to immature sandstone classification? ". SEPM Journal of Sedimentary Research 34 . 3 (2008): 625–632. Geology. Sandstone. 2013. 13 November 2013 . Pettijohn, Francis John. Sand and Sandstone. New York: Springer, 2007.

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