

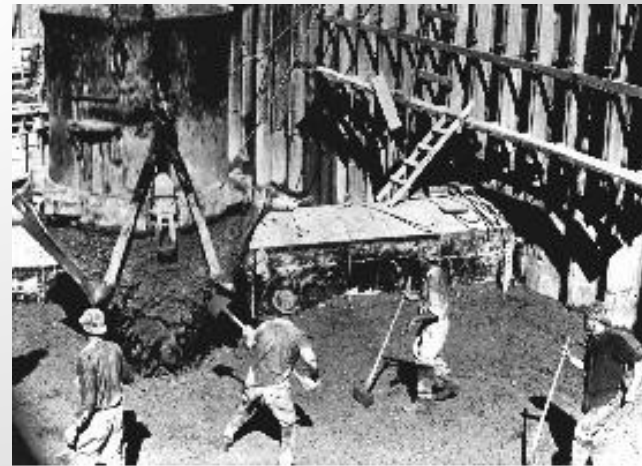


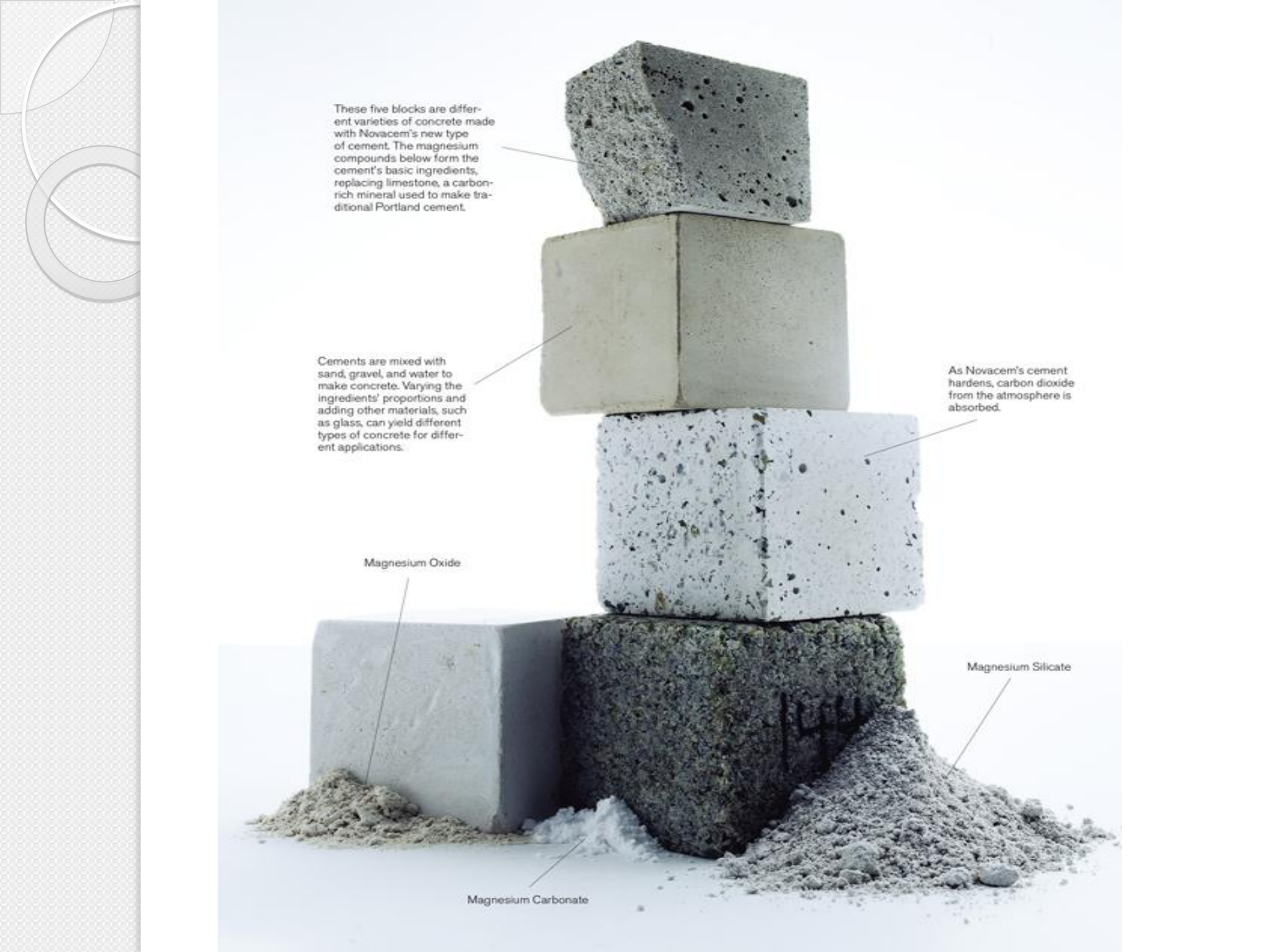
**Concrete** is a composite material composed of coarse aggregate bonded together with a fluid cement that hardens over time



## History

The word concrete comes from the Latin word "*concretus*" (meaning compact or condensed), the perfect passive participle of "*concrecere*", from "*con-*" (together) and "*crescere*" (to grow).





These five blocks are different varieties of concrete made with Novacem's new type of cement. The magnesium compounds below form the cement's basic ingredients, replacing limestone, a carbon-rich mineral used to make traditional Portland cement.

Cements are mixed with sand, gravel, and water to make concrete. Varying the ingredients' proportions and adding other materials, such as glass, can yield different types of concrete for different applications.

As Novacem's cement hardens, carbon dioxide from the atmosphere is absorbed.

Magnesium Oxide

Magnesium Silicate

Magnesium Carbonate





Most concretes used are lime-based concretes such as Portland cement concrete or concretes made with other hydraulic cements, such as ciment fondu.

However, asphalt concrete, which is frequently used for road surfaces, is also a type of concrete, where the cement material is bitumen, and polymer concretes are sometimes used where the cementing material is a polymer.



# Liquid Concrete





When aggregate is mixed together with dry Portland cement and water, the mixture forms a fluid slurry that is easily poured and molded into shape. The cement reacts chemically with the water and other ingredients to form a hard matrix that binds the materials together into a durable stone-like material that has many uses. Often, additives (such as pozzolans or superplasticizers) are included in the mixture to improve the physical properties of the wet mix or the finished material. Most concrete is poured with reinforcing materials (such as rebar) embedded to provide tensile strength, yielding reinforced concrete.





Famous concrete structures include the Hoover Dam, the Panama Canal, and the Roman Pantheon. The earliest large-scale users of concrete technology were the ancient Romans, and concrete was widely used in the Roman Empire. The Colosseum in Rome was built largely of concrete, and the concrete dome of the Pantheon is the world's largest unreinforced concrete dome. Today, large concrete structures (for example, dams and multi-storey car parks) are usually made with reinforced concrete.



# Hard Concrete



***Thank you for your  
attention!!!***