Lithification of sediments to form sedimentary rocks, Part II: Possible pathways

Part I of this series listed some of the processes of diagenesis, the post-depositional alteration of sediments. The sketches on this page illustrate how two of those processes, compaction and cementation, can lithify loose porous sediment into less porous solid rock.

Starting point: loose sediment

Compaction

Grains

Cementation

Newly formed crystal of cementing mineral

Intergranular pores

More compaction

Sutured contact

Tangential intergranular contact

Cementation

Flattened contact

Newly formed crystal of cementing mineral

More cementation

Second generation of cement

Newly formed crystal of cementing mineral