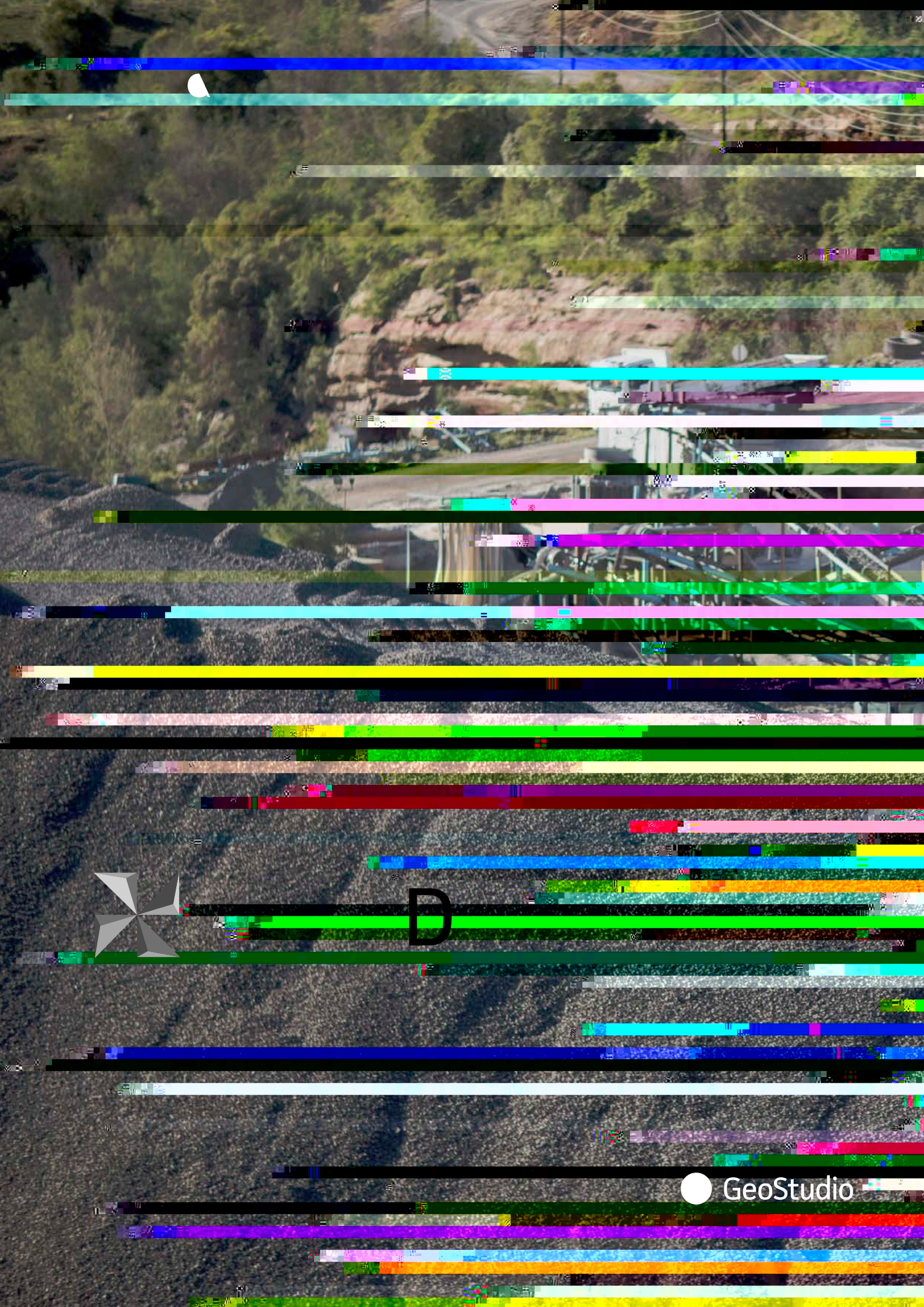
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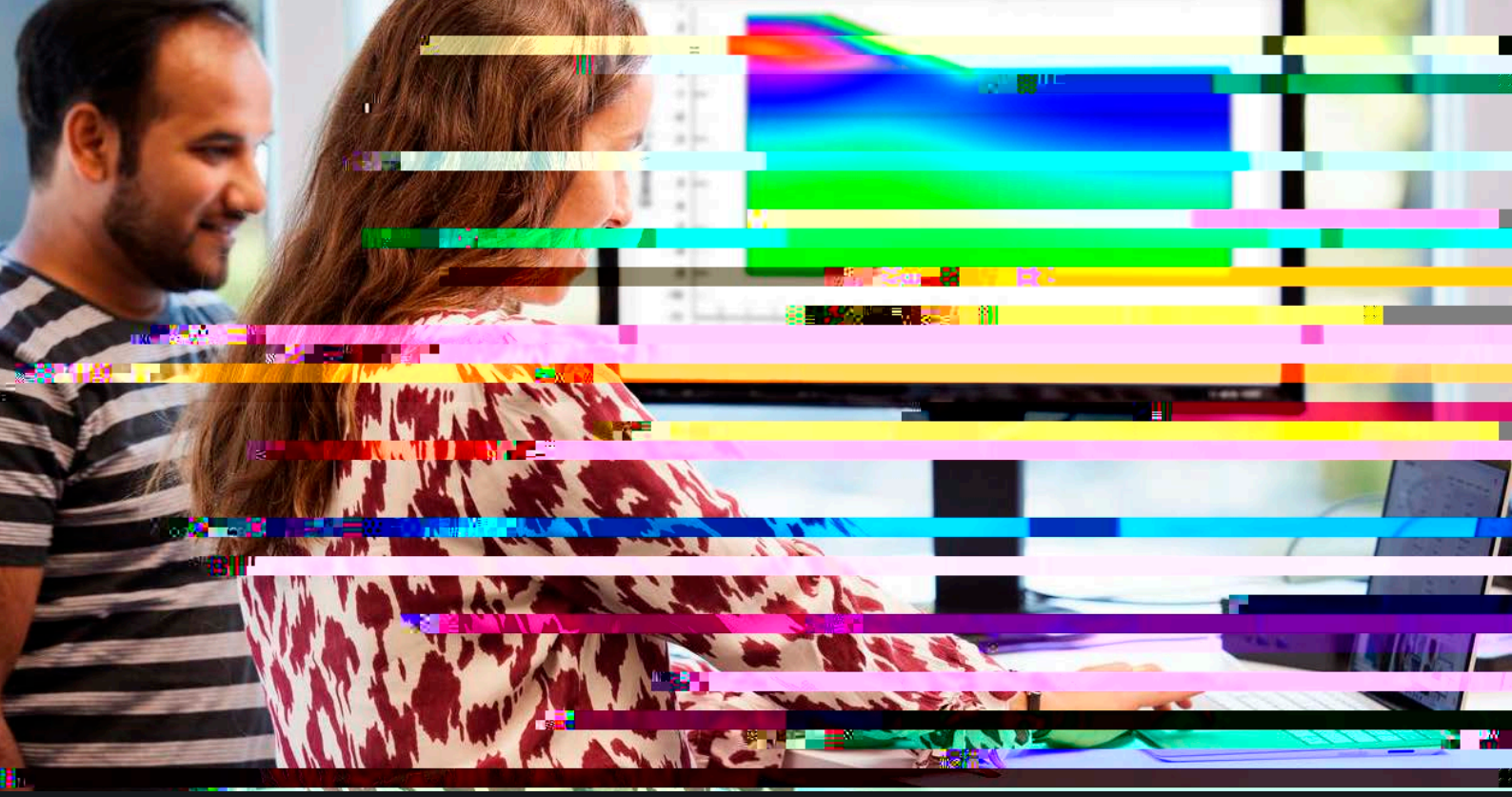


AIR/W is a powerful □nite element software product for modeling air transfer in mine waste and other porous media.

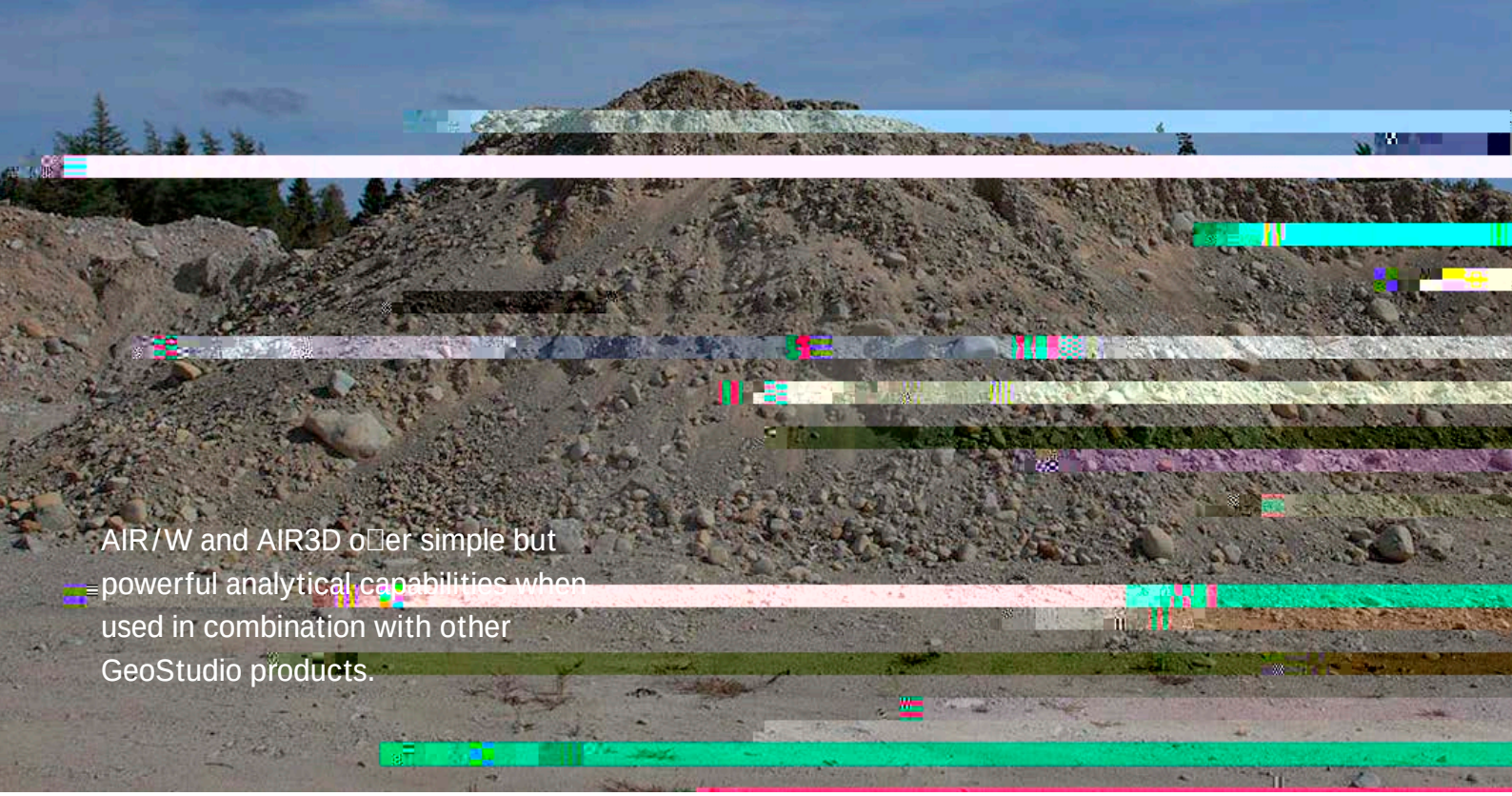
Add AIR3D to unlock the power of 3D air transfer in porous media. AIR3D provides the tools to quickly create 3D geometry, apply materials and boundary conditions to 3D objects, generate □nite element mesh, and solve and interpret 3D results.

AIR/W and AIR3D can be integrated with TEMP/W and TEMP3D to model air transfer via free convection. Density-driven air transfer is often a dominant mechanism in systems subjected to seasonal ground temperature variations.

The air conductivity function can be generated based on the dry-soil air conductivity, a user-selected volumetric water content function, and basic soil properties, such as soil classi□cation or grain size distribution.

Combine AIR/W and AIR3D with TEMP/W and TEMP3D to model forced-convection heat transfer. This process often governs the thermal regime in coarse-grain materials such as waste rock piles, rip-rap, and layered embankments.

Air transfer analyses can be conducted using a single phase material model that only considers pressure and gravity-driven air □ow. Alternatively, a dual phase material model can be used by coupling air □ow and water transfer.



AIR/W and AIR3D o□er simple but powerful analytical capabilities when used in combination with other GeoStudio products.

Thermal response of gravel embankments

Forced convective heat transfer through coarse grain embankments may occur as a resultent

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