Some soft marbles can be easily "granulated," even by light impact forces such as pelting wind and rain. In addition to environmental problems, marble may bow naturally after it is quarried, and the thinner it is cut, the greater the tendency. Each time the thickness of marble is halved, the stresses are quadrupled. Marble can be a very non-uniform and unpredictable material, and preconstruction testing is critical to assure adequate performance.

Limestone and marble are both vulnerable to attack by sulfurous and sulfuric acids, and to a lesser extent, by carbonic acid and ammonium salts. Rainwater is a weak carbonic acid that dissolves the calcite or lime component, causing stones to flake, crumble, and eventually disintegrate. Sulfur-based acids form gypsum which is eventually washed from the stone matrix. Urban environments which produce stronger acid rain also produce accelerated disintegration. Chloride ions, such as those derived from de-icing salts like sodium chloride or calcium chloride, do not chemically react directly with stone. However, chloride can cause physical distress from the forces of crystal growth caused by calcium chloride salts precipitating from solutions within the stone, and by osmotic forces created by cyclic wetting. Porosity/permeability relationships and macro- and micro-fracturing influence these types of chemical weathering. Permeability is of increased significance in thin veneers. It is likely that water will penetrate thin stone veneers in greater amounts and at faster rates than would normally be expected.

Polished marble is not recommended for commercial floors. Polished finishes wear off rapidly, becoming dull and showing traffic patterns. Honed finishes are less slippery, require less maintenance, and look better with wear, becoming more polished from normal foot traffic. Granite is normally a better choice for floors. Porous stones require commercial sealers to protect them from stains. Food, grease, and sugared drinks readily penetrate porous stone faces, leaving unsightly stains that are difficult, if not impossible, to remove. Sealers not only protect these floors, but also enhance their natural colors.

Abrasion resistance of the stone must also be considered. If two or more varieties of stone are used, the abrasion resistance should be approximately the same, or uneven wear will result. Only stones highly resistant to wear should be used on stair treads.

Polished marble is also a very poor choice for bar and table tops. Acidic fruit juices, sugared drinks, and cola products can etch polished marble finishes, leaving spots and rings. Honed marble makes good bar and table tops, but polished granite is virtually impervious to damage from drink and food spills.

The costs of various stones will depend on the proximity of the quarry to the building site, the abundance of the material, and its workability. In general, stone from a local source will be less expensive than stone that must be imported; stone produced on a large scale will be less expensive than scarce varieties; and stone quarried and dressed with ease will be less expensive than stone requiring excessive time and labor.