

# Meteorite Impact

[DOWNLOAD HERE](#)

1;Contents ;6 2;Foreword ;10 3;Part I;13 3.1;Chapter 1: The early history of Earth;15 3.1.1;Introduction ;16 3.1.2;Geological change ;18 3.1.3;Man on the Moon ;24 3.1.4;Back to the beginning ;29 3.1.5;Impact ;31 3.1.6;The oldest rocks ;32 3.1.7;Time to cool ;35 3.1.8;Old crust in the Vredefort Dome ;37 3.1.9;Rifting, oceans, volcanism ;38 3.1.10;Mountains, fire and ice ;44 3.1.11;The unique Bushveld magmatic event ;46 3.2;Chapter 2: Chaos and catastrophe;49 3.2.1;Introduction ;50 3.2.2;Extinction or survival ;53 3.2.3;Meteorite-impact catastrophes ;67 3.2.4;Normal (background) versus mass extinctions ;72 3.2.4.1;The Smoking gun! ;74 3.2.4.2;Vredefort ;75 3.2.5;A brief look at the impact record in the Solar System ;76 3.2.5.1;How did impact science get started?;76 3.2.5.2;Craters on the Moon;82 3.2.5.3;From the Moon to the Earth-Moon system;82 3.2.5.4;The impact record on Earth;83 3.2.5.5;The wealth within;86 3.2.6;What are the projectiles capable of causing an impact catastrophe? ;87 3.2.6.1;Meteors and meteorites ;87 3.2.6.2;Large asteroids and comets;89 3.2.7;What is an impact crater? ;90 3.2.8;How can we identify impact structures? ;92 3.2.9;Shock metamorphism ;97 3.3;Chapter 3: The impact heritage of southern Africa;101 3.3.1;Tswaing meteorite crater ;102 3.3.1.1;Solving the riddle of the origin of Tswaing;103 3.3.1.2;The search for the meteoritic projectile;105 3.3.1.3;What do we know about the landscape in the Tswaing area prior to the impact?;105 3.3.1.4;What would the catastrophe have been like?;106 3.3.1.5;Were there any witnesses of the catastrophic impact at Tswaing?;107 3.3.2;Does Tswaing have a twin? ;108 3.3.3;South Africa's other giant impact ;109 3.3.4;Our southern African neighbours ;111 3.3.5;Testimony of earlier impact catastrophes ;113 3.3.6;Traces of catastrophe in the Karoo? ;115 3.4;Chapter 4: Vredefort: the largest and oldest impact structure in the World ;117 3.4.1;The Vredefort Structure revealed ;118 3.4.2;Getting to know the giant ;120 3.4.3;Traversing the outer parts of the Vredefort Dome ;125 3.4.4;The Geology of the Vredefort Dome ;130 3.4.5;The unique rock formations and deformation in the Vredefort Dome ;134 3.4.6;The findings of the early Vredefort geologists ;138 3.4.7;The second phase ;141 3.4.7.1;Craters and breccias;144 3.4.8;Shock metamorphism;145 3.4.9;The vredefort structure in the 1970s and 1980s ;148 3.4.10;What do dead elephants in Leningrad have to do with the Vredefort Structure?;151 3.4.11;The third phase ;153 3.4.11.1;Shocked zircon and a

precise age for the impact event;155 3.4.11.2;How big is 'big'?;157 3.4.12;Vredefort research in the 21st century ;159 3.4.13;Vredefort ;161 3.5;Chapter 5: The recent history of the Vredefort Dome area;163 3.5.1;Section 1: Travelling through time ;164 3.5.1.1;Introduction;164 3.5.1.2;Stone Age Vredefort Dome;165 3.5.1.3;The Iron Age;168 3.5.1.4;Archaeological research on the Askoppies Late Iron Age site;170 3.5.1.5;Archaeology of the historical period on the dome;175 3.5.2;Section 2: Beyond the frontier history of the Vredefort Dome area ;179 3.5.2.1;The geographic setting;181 3.5.2.2;Development of towns;183 3.5.2.3;Treading on territorial toes;185 3.5.2.4;Mineral resources;187 3.5.2.5;The Second Anglo-Boer War (1899 1902);189 3.5.2.6;After the war;195 3.5.2.7;20th Century development and growth;196 3.5.2.8;Development of infrastructure;198 3.5.2.9;Development of tourism;199 3.5.2.10;Workers and forced removals;199 3.5.3;Section 3: Flora and fauna of the Vredefort dome ;201 3.5.3.1;The Vredefort Dome plants (flora) in a geographical context;201 3.5.3.2;The composition of the flora;201 3.5.3.3;Which biome occurs on the Vredefort Dome?;203 3.5.3.4;Veld types on the Vredefort Dome;203 3.5.3.5;Factors that affect the vegetation;205 3.5.3.6;The habitats on the Vredefort Dome;207 3.5.3.7;The effect of geology on EAN/ISBN : 9783642104640 Publisher(s): Springer, Berlin Discussed keywords: Meteorit Format: ePub/PDF Author(s): Reimold, Wolf U. - Gibson, Roger L.

[DOWNLOAD HERE](#)

Similar manuals: