The imposing cliffs of the Glamorgan coast show a story of tropical seas and desert environments as Britain drifted across the Equator and sea levels changed. The rocks of Dunraven Bay contain the fossils and structures that reveal this history. Some of the exposures that would help to understand the geology of this place are high on eroding cliffs and can’t be accessed safely.

LiDAR equipped drones can be used to create digital models of sites that geologists cannot access. We built a digital 3D model of the cliffs to explore some of the geological structures that formed Trwyn y Witch. We assessed key geological evidence to investigate whether a catastrophic flood event in 1607 around the Bristol Channel coastline could be attributed to a tsunami event.