

The story of my noon gun

Built in 2008

While visiting Schloss Ludwigsburg in Germany, I saw a “Mittagskanone”, a miniature cannon which was fitted with a magnifying glass so that when the sun is at the highest, a shot is fired to announce to everybody at the castle that it is midday. The cannon was constructed in 1815 by a watchmaker as a novelty for the king.



It could not have been very accurate time wise, because it had a longish powder tray and when the magnified sunrays went over it, it ignited the black powder and the cannon fired. I thought it would be a nice project to make. I chose one of my cannon, with a navy type carriage which was mounted on a large wooden base, so the cannon did not jump off at recoil. The barrel had a 9.5mm bore rifled on my lathe for an experiment, (to fire bullets accurate into a target)



The magnifying glass was no problem, the one I used belonged to my Grandfather and as a kid I played with it, (burning patterns into wood or set paper alight). I had to make a holder which could be adjusted for the different angles and the right focus length. The next step was to make an incorporated sundial, on which 12.00 hours was in the middle of the priming vent hole of the barrel. I studied sundials on the internet for whatever I could find. Sundials do not show the correct time and must be made different for every location on earth. Also depending on the day of the month during the year it changes a lot. Taken the analemma (looks like a figure 8) in consideration, which is caused by the earth axis being tilted when she moves around the sun. With the help of a CAD program and coordinates of the internet I draw a graph which had to be coordinated for Cape Town and for a specific day of a month, with North and South and the deviation for the location, so I can make use of a compass to set it up. Everything must be perfectly level, to be accurate. In the summer months the rays must go through a 2mm hole to get to the priming powder.



That's how the cannon looked after the modifications

The wood used is Rhodesian teak. For loading the powder any time and not disturbing the setup, special loading tools had to be manufactured. By the way, I only fire blanks (no bullets) with a soft board as a ward, so it is quite safe. I usually use 50 grains of Black Powder.

The results you saw at V&A Waterfront and the Castle, in competition with Cape Town's Noon Gun.

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