Parroċċa Santa Marija
Qrendi

Lill-Eċċellenza Tiegħu Reverendissima
Mons. Charles J. Scicluna
Arċisqof Metropolita ta' Malta

95/2025

Rikors ta' Dun Mario Said
Kappillan tal-Parroċċa tal-Qrendi
2164 9395 / 7957 4849

6 ta' Marzu 2024

Jesponi bir-rispett,

illi l-qanpiena l-kbira tal-knisja parrokkjali għandha ħsarat konsiderevoli, għalhekk madwar tlett snin ilu, fuq il-parir tal-kampanoloġista Kenneth Cauchi, ittieħdet id-deċiżjoni li ma tintużax iktar sabiex ma ssirilix iktar ħsara.

illi sar rapport dettaljat mill-kampanoloġista Kenneth Cauchi dwar il-kundizzjoni ta' din il-qanpiena flimkien ma' dak li hemm bżonn isir sabiex din titranġa, inkluż l-istima tal-ispejjeż involuti, liema rapport qiegħed nippreżentah ma' dan ir-rikors.

illi l-fondi meħtieġa għal dan ix-xogħol ser jinġabru permezz ta' ġbir apposta mingħand ir-resdienti tal-parroċċa.

Għaldaqstant it-talba tar-Reverendu Kappillan rikorrenti hija li l-Eċċellenza Tiegħek Rev.ma tawtorizzah sabiex ikun jista' jimplimenta l-proġett ta' manutenzjoni tal-qanpiena l-kbira tal-knisja parrokkjali.

Nitlob il-Barka Pastorali Tiegħek,

Dun Mario Said
Kappillan

Preżentat fil-Kurja Arċiveskovili
Illum 11 ta' Marzu 2025
Charles Buggeja, Kanċillier

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KENNETH CAUCHI

Campanologist, Conservator and Restorer

06th March, 2025

The Parish Priest,
The Very Rev'd
Fr. M. Said
Domus Curialis
Parish Church of the Assumption of the Virgin
QRENDI

Parish Church of the Assumption QRENDI

The bells installed at the site in caption were inspected on Friday 31st January. It is here being reported as follows: The church is a fine 18th Century building comprising two belfries which are attached to each of the transepts. The church originally had one belfry (the north-west belfry) and this still contains 4 bells. The south-west belfry was a later addition and is still devoid of bells. The 4 bells form no set but are a collection of bells from different 17th, 18th and 19th Century bellfounders. Beyond any doubt the bells replace earlier bells that must have cracked and were recast in the process. Each of the bells hang in the arches of the same campanile. All bells are fitted stationary to their headstocks which comprise solid forged steel iron bars.

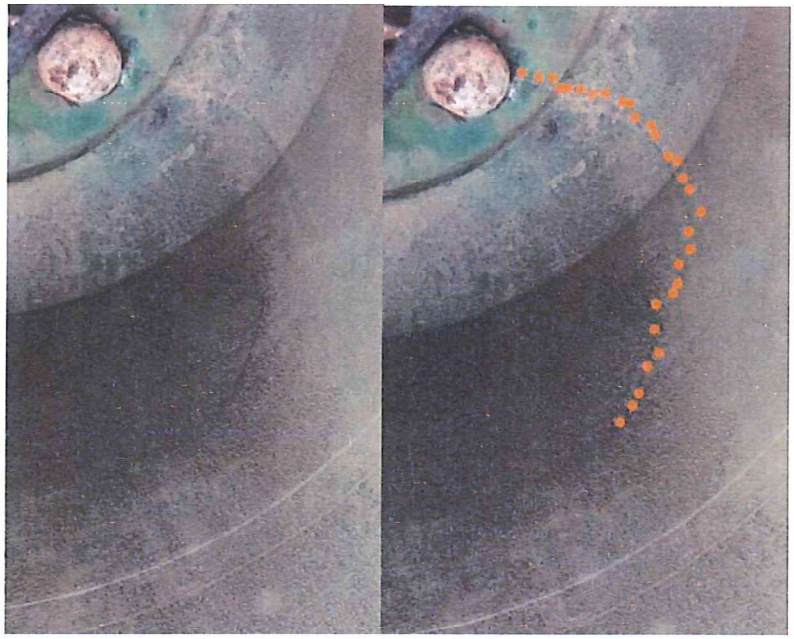
Bell no	Founder	Year	Diameter	Location
1	Trigance brothers	1788	1440mm	East
2	Gioacchino Trigance	1794	1220mm	North
3	Antonino Guierrera	1663	n/a	South
4	unknown	1852	n/a	West

For the scope of this report the focus is on bell no 1 which has serious damage which requires that it is lowered from the belfry and shipped overseas.

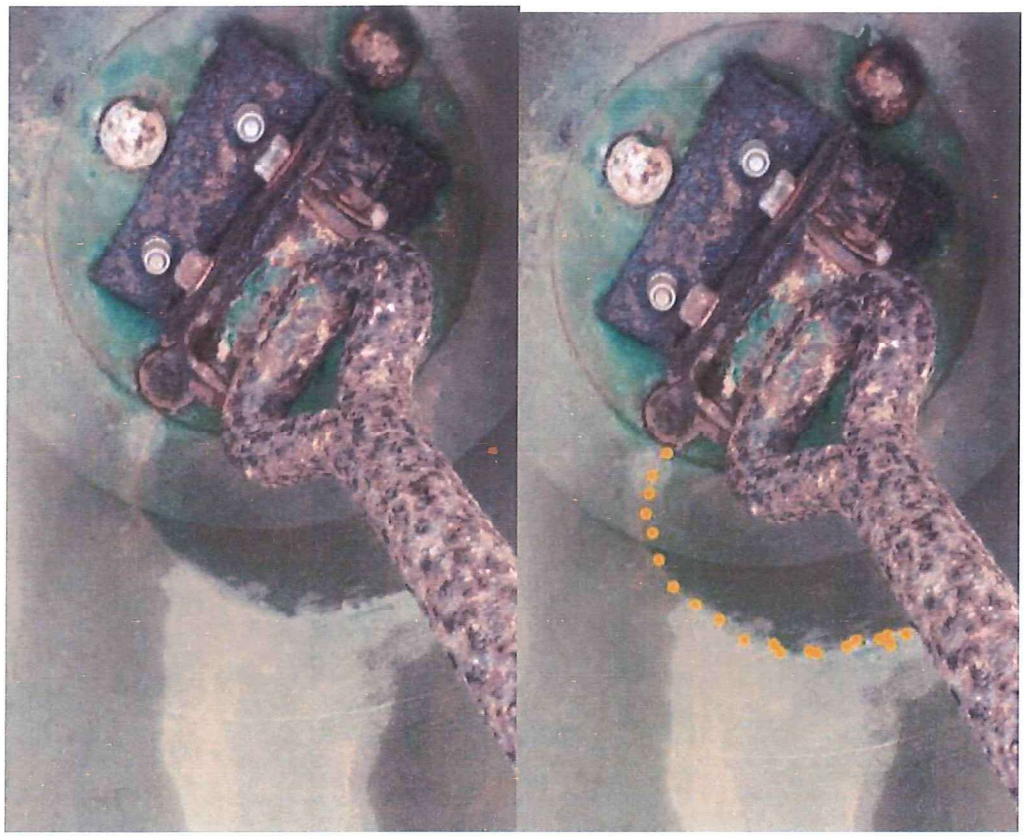
Bell no 1 – Inscription:

FRATRES TRIGANCE FECERVNT ANNO DNI:1788

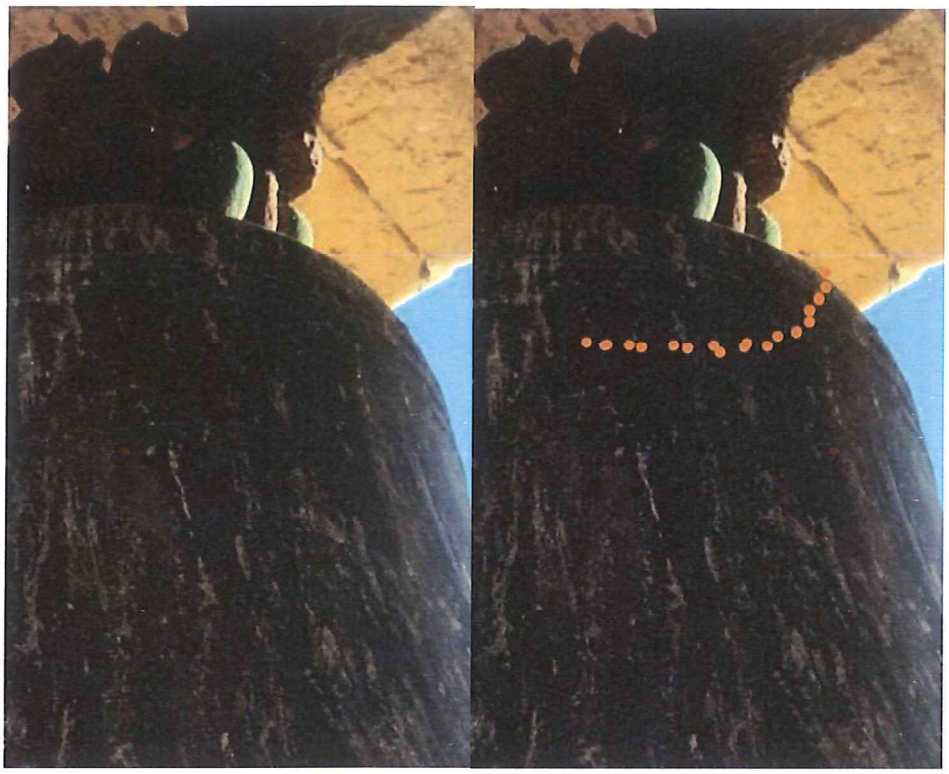
The bell is only adorned by a crucifix and is a typical bell cast by the Trigances. It seems to have a problem in its suspending crown however this could not be examined at close range. The bell has been drilled throughout its lifetime and suspended by what appears to be four ferrous bolts. These have rusted in due course and two of these appear to have cracked the bell – at this moment in time without significant loss of sound. It is not known whether the other two bolts have done the same. Images hereunder referred.



Images above indicate the crack coming from the first bolt, spanning over the shoulder of the bell and down the waist and right, the same crack highlighted for the scope of this report.



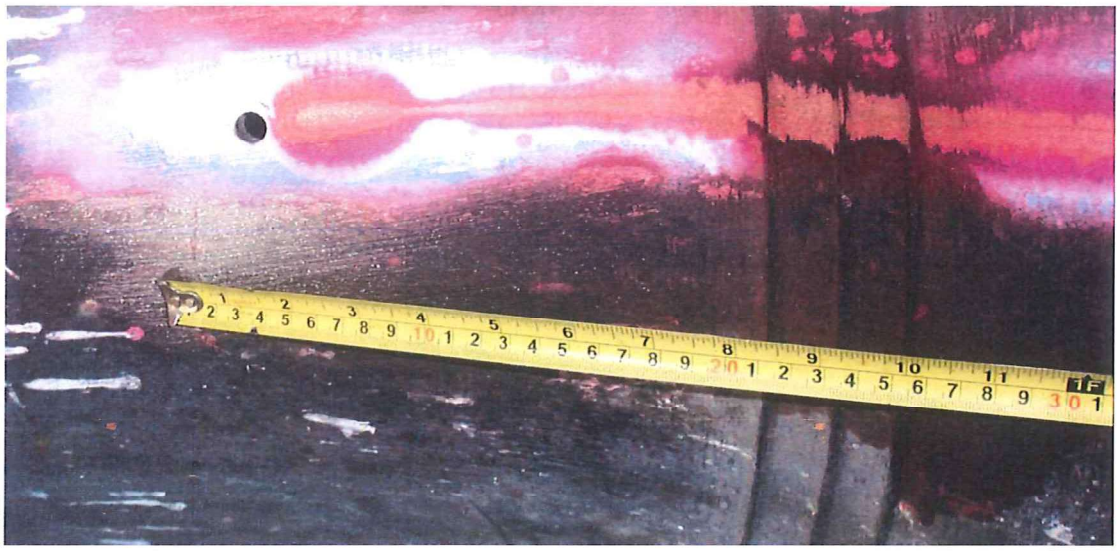
Images above indicate the crack coming from the second bolt, spanning over the shoulder of the bell and across the waist and right, the same crack highlighted for the scope of this report. Note the whitened area below the crack indicating surface change due to what is presumably a change in the surface deposits due to moisture penetrating through the crack.



Images above indicate the crack coming from the second bolt, spanning over the shoulder of the bell and across the waist and right, the same crack highlighted for the scope of this report. Note that these images show the same crack in the two images before these however this time from the outside of the bell.

Proposal

It is here being proposed that bell is underpinned on a sturdy timber pallet and extending beams (travetti) to shift the weight of the bell from the suspending fittings onto its soundbow. The bell is to be released from its ferrous fittings cautiously to ensure that the cracks are not propagated further during handling. The bell is to lifted and lowered by crane from the belfry. Shipping of the bell to an appropriate and specialized bell welding company to be diagnosed further for any further cracks through non-invasive dye penetrating techniques. This will either confirm what we know already or worse, establish that the cracking is deeper and more extensive. Assuming that the cracks are those detected and exhibited above, a crack arresting bore is drilled ahead of the end of each crack as a precaution against further crack propagation (see image hereunder).

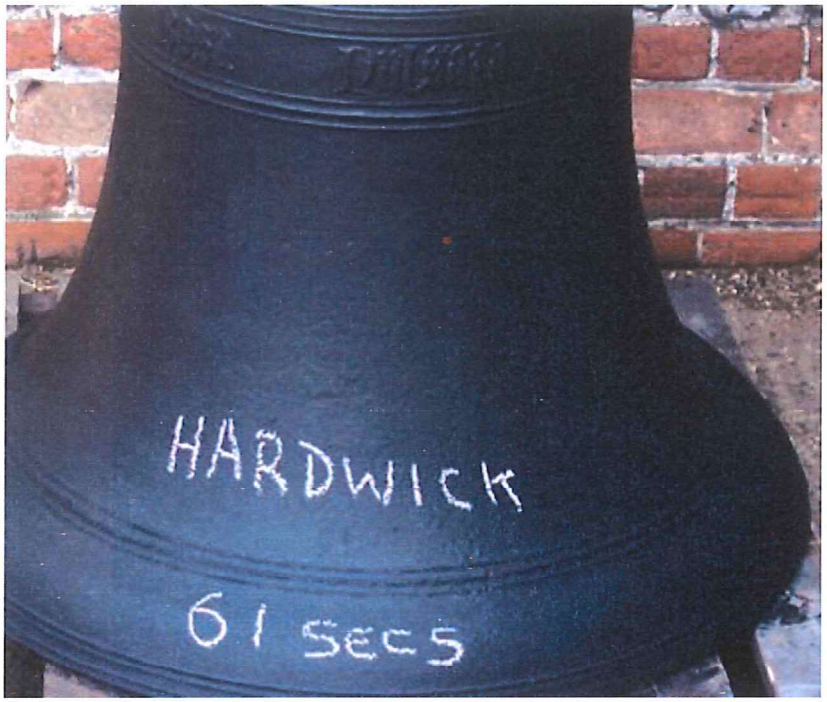


Dye penetrating non-invasive testing and crack arresting.

The cracks will then be literally cut out at an angle of 45 degrees from the external side of the bell (see hereunder).

A backing for the weld is placed on the inside of the bell in order to ensure that the weld does not fall through in the initial stages (see hereunder).

The bell is then placed in a lagged jig were it is then heated in preparation for the weld and exposing only the crack which is to be welded (see both images hereunder).



After welding. The reverberation time is recorded on the bell.

The clapper suspension has to be modified to accommodate a correctly designed new forged clapper. At this point it is recommended to turn the bell through an angle of 90° to start fresh striking points. The clapper tail has to be modified to have a solid eye to which the chiming rope is attached to eliminate the raucous rattling during ringing.

a) Costings for Bell no 1 (largest bell)

It is unclear if the cracks propagate towards the centre of the bell, but assuming they are not, the cost of welding both cracks will be € 9060, while that of a new forged clapper with clapper plate and eye is here being proposed to bring out the harmonic content of the bell's tone which is currently inaudible. The damage in the crown cannot be ascertained at this stage therefore no specific cost can be given for this. Since the crown is already bypassed, there is no intention to make use of it as a load-bearing unit, and the bell will be supported by independent insulated stainless steel bolts, the cost of which at the moment still cannot be given as the their dimensions are not yet established.

b) Cost for on-site dismantling of the bell in the belfry

Bell is to be freed from all rusting elements before being lowered safely from its beam in the bell-chamber as per proposal given further above for the sum of €3,300.

General comment on the existent 4 bells

Given their sizes, it is sensible to use the existent largest bells (1 and 2) as a musical base around which to build a proposed scale. The existent smallest bells (3 and 4) are out of tune with the two largest bells. It is here being recommended to set these aside for the use of the quarter and hour strike respectively by the church tower clock and cast two new replacement bells sounding the notes G# and A# respectively. These will be sympathetically tuned with the idiosyncrasies of bells 1 and 2 and produce a harmonious and much needed musical result. This will be enhanced by a new forged clapper for bell no 2 to bring out the harmonic content of the bell's tone which is currently inaudible and compliment bell no 1 with sweetness and purity of tone.

Details of the two new bells and four forged clappers are being included in a separate document

c) Exclusions

- VAT
- Shipping of bell no 1 to the Netherlands and back
- Drilling of bell no 2 for clapper suspension
- Suspending bolts for Bell no 1
- Crane services to lower bell no 1 from the belfry to go to the Netherlands
- Square bars and ferrous hanging fittings that may need replacement (this to be determined during dismantling)
- Suspending fittings for smallest two existent bells in their new position to accommodate the tower clock.

Sincerely,

Kenneth CAUCHI MA. (Bar. Std.) Melit; B. Cons. (Hons.) Melit.

Campanologist and Conservator

Warrant no 048.

References

Cassar R. 2003, ***The decoration of the bells of Malta (1370-1900) - An art historical consideration,*** Unpublished Masters Thesis, University of Malta.

Cauchi K. 2005, ***A study of the post 18th century interventions on a number of bells in the Maltese Islands,*** Unpublished Bachelor Thesis, University of Malta.