The objective of opening IS-1 is to identify the characteristics of the foundation. After removing the brick floor and some compacted soil, at a depth of 0.25 m we found rocky soil corresponding to the slope of the hill where the church is situated. Taking advantage of the partial loss of the banquette, we were able to extend the opening to the lateral wall of the church and see that on top of the rocky base rests a “sobrecimiento” consisting of angled stones with a clay-rich mortar to a height of 1.20 m. On top of this “sobrecimiento” there is the adobe wall. The mud brick banquette is constructed adjacent, but not connected, to the wall.
This opening is located at the floor at the corner of the front façade and west lateral wall, and its objective is to identify the foundation characteristics in this sector. There is an "L"-shaped mud brick banquette, 0.40 m high by 0.40 m wide, which is adjacent, but not connected, to both walls. Unlike prospection IS-1, there are no bricks at the floor, only loose earth. At a depth of 0.50 m, human remains were found. Below this, the soil is more compacted, and the compaction increased as we descended. By extending the opening under the mud brick banquette adjacent to the main façade, we were able to see the foundation. It is composed of angled stones and a clay mud mortar, and it has a depth of 1.00 m as measured from the floor level in the church. Under this foundation there is compacted soil.

As compared to prospection IS-1, this foundation is deeper and has a higher level of soil compaction, which was difficult to excavate with the tools used for the investigations. Therefore, we can deduce that the church sits on a hill, with the highest part in the zone of the altar, which has a rocky base (as seen in prospection IS-2); and at the lower slope of the hill is the façade wall, which has a deeper foundation. The level floor inside the church was created with a highly compacted, clay-rich soil.
THE OBJECTIVE OF THIS OPENING IS TO IDENTIFY THE CHARACTERISTICS OF THE BASE OF THE WALL. THE "SOBRECIMIENTO" CONSISTS OF ANGLED STONES WITH A CLAY-RICH MUD MORTAR TO A HEIGHT OF 1.80 m, AND IT RESTS ON A VERY HARD CLAY MATERIAL. OVER THE "SOBRECIMIENTO" IS THE ADOBE WALL. THE EXTERNAL FACE OF THE WALL IS PROTECTED BY A CLAY BASE OR PLINTH, WHICH IS 1.00 m HIGH AND 0.25 m THICK.
IW-5

This opening is located at the exterior of the east lateral wall. There is a stone "Sobrecimiento" or base course bonded with a mud mortar to a height of 1.65 m. Under it there is very hard clay soil that prevented us from digging deeper.
Structural System of "Parr Y Nuddllo" Truss

Title:
Phase:
Sheet:
Scale:
Date:

References:
- "Parr Y Nuddllo" Truss
- Clay Tile
- Spanish Style
- Rafter from Willow
- Canvas and Straw
- Layer of Mud

Dimensions:
- Tile: 8" x 60 m
- Collar Tie (Q'ususuar in Quechua)
- Ridge Beam
- No Scale
IR-1

This roof detail illustrates the highest part of the "Par y Nudillo"-trussed roof. The rafters are joined by half lap cuts and are tied together with leather straps and wrought iron nails. The rafters are made of wood from the willow tree and are 8" (0.20 m) in diameter. At the top is a ridge beam.

The collar tie is nailed and strapped with leather, similar to the rafters, but it is not joined by half lap cuts.

Above the rafters are the "Kur Kur" canes (thin canes, without voids in the center, woven and tied together rope, and also tied to the rafters with rope. Above this is a layer of mud and straw that supports and adheres the clay roof tiles.

It is important to mention there is no transverse bracing, except for the wood wall plate, the "Kur Kur" canes, and the ridge beam.
THIS STRUCTURAL DETAIL SHOWS THE CONNECTION BETWEEN THE EAST AND WEST LATERAL WALLS AND THE "PAR Y NUDILLO" TRUSSES, ON TOP OF THE ADOBE WALLS THERE ARE PIECES OF WOOD (WALL PLATES). NEITHER CONTINUOUS NOR TIED TOGETHER, WITH HORIZONTAL AND VERTICAL GAPS BETWEEN THEM. THIS, THEY ARE NOT REALLY BOND BEAMS - THEIR ONLY FUNCTION IS TO SUPPORT THE ENDS OF THE ROOF RAFTERS. THE ENDS OF THE RAFTERS HAVE A 90 DEGREE CUT, ALLOWING THEM TO REST ON THE WALL PLATES.


PAIRS OF TIE BEAMS RUN TRANSVERSALLY ACROSS THE NAVE. THEY ARE EMBEDDED APPROXIMATELY 0.60 m INTO THE EAST AND WEST WALLS AND ARE SUPPORTED BY CORBELS PROJECTING 0.40 m INTO THE NAVE. IN THE SPACE BETWEEN EACH PAIR OF TIE BEAMS, THERE IS AN INCLINED RAFTER WHICH RESTS DIRECTLY ON THE ADOBE WALL.
IW-3
IN THIS SECTOR THERE ARE TWO BUTTRESSES CONSTRUCTED OVER A STONE MASONRY AND MUD MORTAR BASE, ONE OF THESE IS CONNECTED TO THE EAST WALL. THE OTHER ONE IS NOT CONNECTED TO THE EAST WALL - IT IS JUST CONSTRUCTED ADJACENT TO IT. THE STONE BASE AT THIS SECOND BUTTRESS IS DETERIORATING AND LACKS STABILITY.
NEXT TO THESE BUTTRESSES IS AN OPENING WHICH HAD BEEN COVERED WITH AN ADOBE WALL. CURRENTLY THIS WALL IS INSTABLE AND EXHIBITS VERTICAL DISPLACEMENT. AND AS A RESULT IT HAS BEEN SHORED UP.

IW-3
TWO BUTTRESSES ARE LOCATED IN THIS SECTOR - BOTH ORIGINALLY HAD STONE BASES BONDED WITH A MUD MORTAR. ONE OF THEM IS ON A STABLE CONDITION AND THE OTHER ONE HAS COMPLETELY COLLAPSED. IT IS IMPORTANT TO MENTION THAT THE REMAINING BUTTRESSES IS CONNECTED TO THE EAST WALL, WHILE THE OTHER (COLLAPSED) ONE WAS NOT.

IW-4
APPROXIMATELY 80% OF THIS BUTTRESS HAS BEEN DESTROYED, WITH ONLY THE STONE BASE AND THOSE MUD BRICKS THAT WERE CONNECTED TO THE LATERAL WALL REMAINING. THEREFORE WE WERE ABLE TO DEDUCT THAT THIS BUTTRESS WAS CONNECTED TO THE WALL IN THE PAST, AND THAT ITS COLLAPSE MAY HAVE BEEN CAUSED BY THE INSTABILITY OF THE STONE BASE SET WITH MUD MORTAR. THE REMAINING STONE BASE IS CURRENTLY COVERED BY BRUSH AND GRASS.

IW-6
THIS OPENING IS LOCATED IN BETWEEN THE EAST LATERAL WALL AND SACRISTY WALL. THESE WALLS ARE CONNECTED, PROVIDING BRACING FOR THE CHURCH WALLS.

IW-7
THIS OPENING IS LOCATED AT THE INTERSECTION OF THE WEST AND NORTH WALLS. ONE CAN SEE THAT THE BUTTRESSES AND WALLS ARE CONNECTED. IT IS IMPORTANT TO MENTION THAT THIS BUTTRESSES IS IN GOOD CONDITION, AS COMPARED TO THE OTHERS.

IW-8

IW-9
THIS OPENING IS LOCATED AT THE SECOND BUTTRESSES NEXT TO THE INFILLED LATERAL DOOR OPENING ON THE WEST WALL. IT HAS TOTALLY COLLAPSED, WITH ONLY THE STONE BASE REMAINING. THIS GIVES AN INDICATION OF HOW THE REMAINING BUTTRESSES WILL CONTINUE TO DETERIORATE IN THE FUTURE IF THEY ARE NOT MAINTAINED.
IW-1
THIS OPENING IS LOCATED BETWEEN THE BAPTISTERY AND EAST LATERAL WALL AND SHOWS THERE IS NOT A CONNECTION BETWEEN THOSE ELEMENTS. THIS MEANS THAT THE BAPTISTERY WALL IS SIMPLY CONSTRUCTED ADJACENT TO THE CHURCH.

IW-10
THIS OPENING IS LOCATED IN BETWEEN THE BAPTISTERY AND FRONT FACADE WALLS AND SHOWS THE LACK OF CONNECTION BETWEEN THOSE ELEMENTS. IT CONFIRMS THAT THE BAPTISTERY IS CONSTRUCTED ADJACENT TO THE CHURCH.