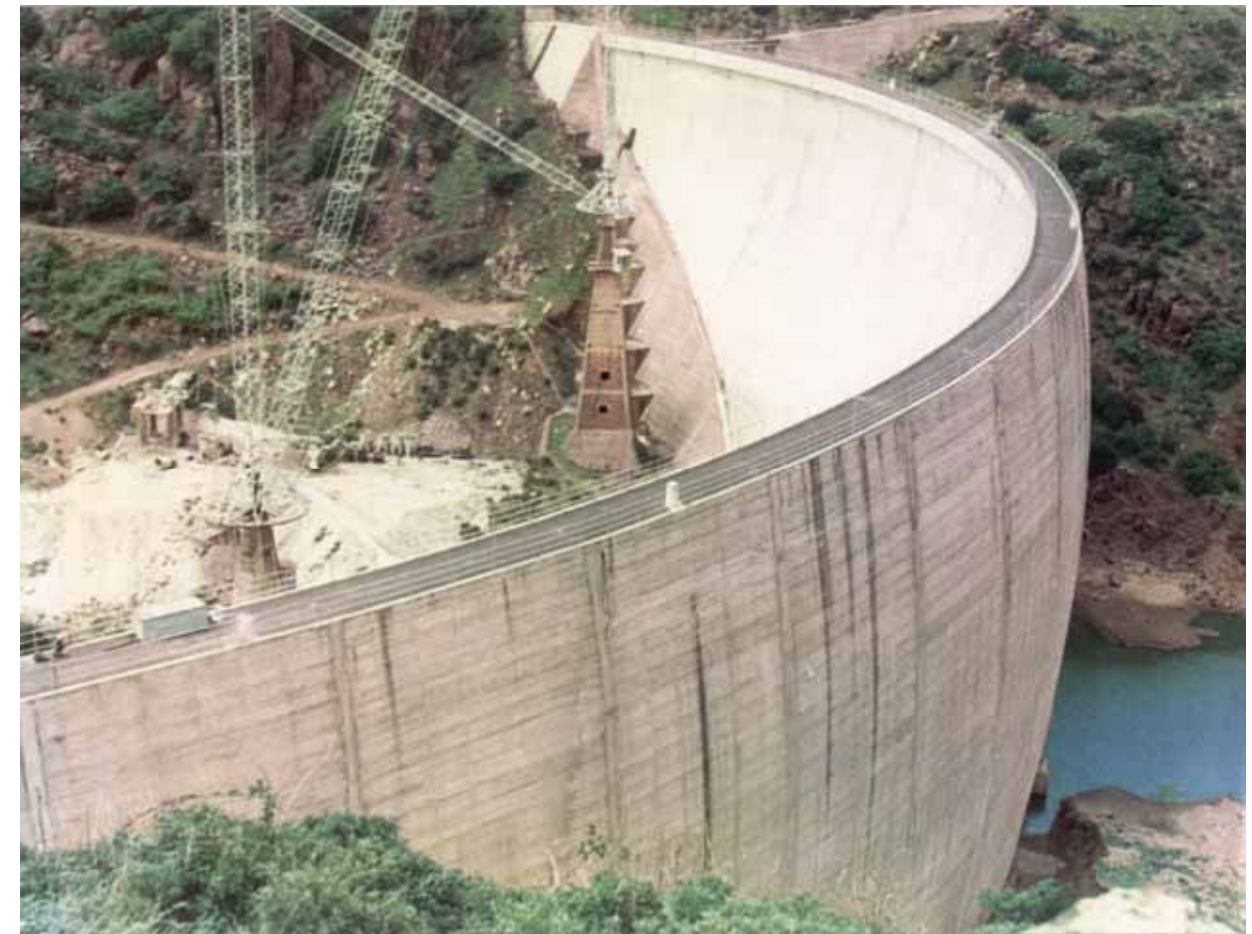




ARCH-GRAVITY DAM CHANGE IN THE DESTINATION OF USE

ITALY



BOSA

LOCATION : Bosa (Sardinia) - ITALY

PROJECT : Reservoir for flood control of Temo River for the protection of the town of Bosa

Monte Crispu Dam static testing and change in the destination of use (from flood control dam to reservoir for drinking water supply and irrigation).

WORKS :

• **Reservoir**

- Total Storage.....30 Mm³
- Useful capacity for water supply and irrigation5 Mm³

• **Dam**

- Type..... arch- gravity
- Height 57 m
- Crest Length 325 m

• **Bottom outlet tunnel**

- Tunnel Diameter 6 m
- Length..... 280 m
- Design discharge flow 600 m³ / s

• **Intermediate outlet tunnel**

- Tunnel Diameter 5 m
- Length..... 360 m

• **Spillway**

- Type..... shaft
- Tunnel Diameter 5 m

• **Change of destination works (under construction)**

Installation of regulating gates on the existing unregulated bottom outlet

- Gates No. 4 (No. 2 x 2 in series, No.1 roller and No 1 sliding) dimensions5 x 3.5 m

• **Dam rehabilitation works (under construction)**

Dam abutments protection and stabilization

- Protective shotcrete and/or steel mesh 1700 m²
- Anchor bolts1150 m

COST S:

- Phase 1 1965-1968
- Amount 1 MUSS

- Phase 2 (rehabilitation, change of destination) 1996-2004
- Amount 6 MUSS

STUDIO PIETRANGELI SERVICES :

- Detailed flood regulation studies..... 1965-1967
- Final design..... 1967-1968
(in collaboration with Prof. Lamberto Canali)
- Topography , geological studies.....1996-1997
- Statical model , dambreak studies1996-1999
- Preliminary and final design of change of destination works and dam stabilization.....1994-2003
- Supervision of the works 2004-in progress

CLIENT :

- Regione Autonoma della Sardegna
Assessorato ai LL.PP
- Ministry of Public Works - Dam Division

