

### TECHNOLOGY TRANSFER TO TANZANIA

Satprem Maini, director of the Auroville Earth Institute, was invited as the Keynote speaker for an international conference for the promotion of earth architecture in Tanzania. This conference "Advancing the structural use of earth based bricks" was held at Dar Es Salam on the 21<sup>st</sup> and 22<sup>nd</sup> July 2009. It was financed by the National Science foundation / USA and it was organised by the University of Florida / USA in partnership with Ardhi University at Dar Es Salam and the Tanzanian National Housing Board and Research Agency.

After the conference, Satprem went to the north of Tanzania, at Karatu, till the 4<sup>th</sup> August. He conducted a training course on the production of CSEB. This training course was sponsored by the project "Bricks for Life" created and financed by Mr. Alberto Navarro, a Spanish citizen, resident in USA. Besides training the block makers, Satprem designed the first project to be built with CSEB: the library of Ganako School. This 200 m<sup>2</sup> library has been designed with the earthquake resistant technology developed by the Auroville earth Institute, as this zone of the Rift is earthquake prone. The local partners and authorities were very enthusiastic with the project and they are looking forward to the construction of the library as the first step of a technology transfer in earth architecture to Karatu: the local authorities imagine using this material and technology to build their 2 new townships for a total of 2,000 houses. Satprem will go again to Karatu end of the year 2009 to train local masons and built the library in 6 weeks.

Mr. Alberto Navarro is a dedicated man who wants to help the development of Karatu and in order to achieve his goal he came first to the Auroville Earth Institute, to get trained in June / July 2008. The project "Bricks for Life" that he crated, aims at poverty reduction in Karatu district through the achievement of access to vocational training for youth out of the standard education system, SES (primary, secondary, high school) and the creation of a Community, Cultural and Learning Centre as a vocational training centre for youth and entertainment centre for local population and visitors. The construction of the library of Ganako School will be the first step in the creation of the vocational training centre in earth construction as twelve people have been trained for block making.



*Introduction to soil identification*



*Shifting the soil with 150 students*



*Students volunteering for sieving the soil*



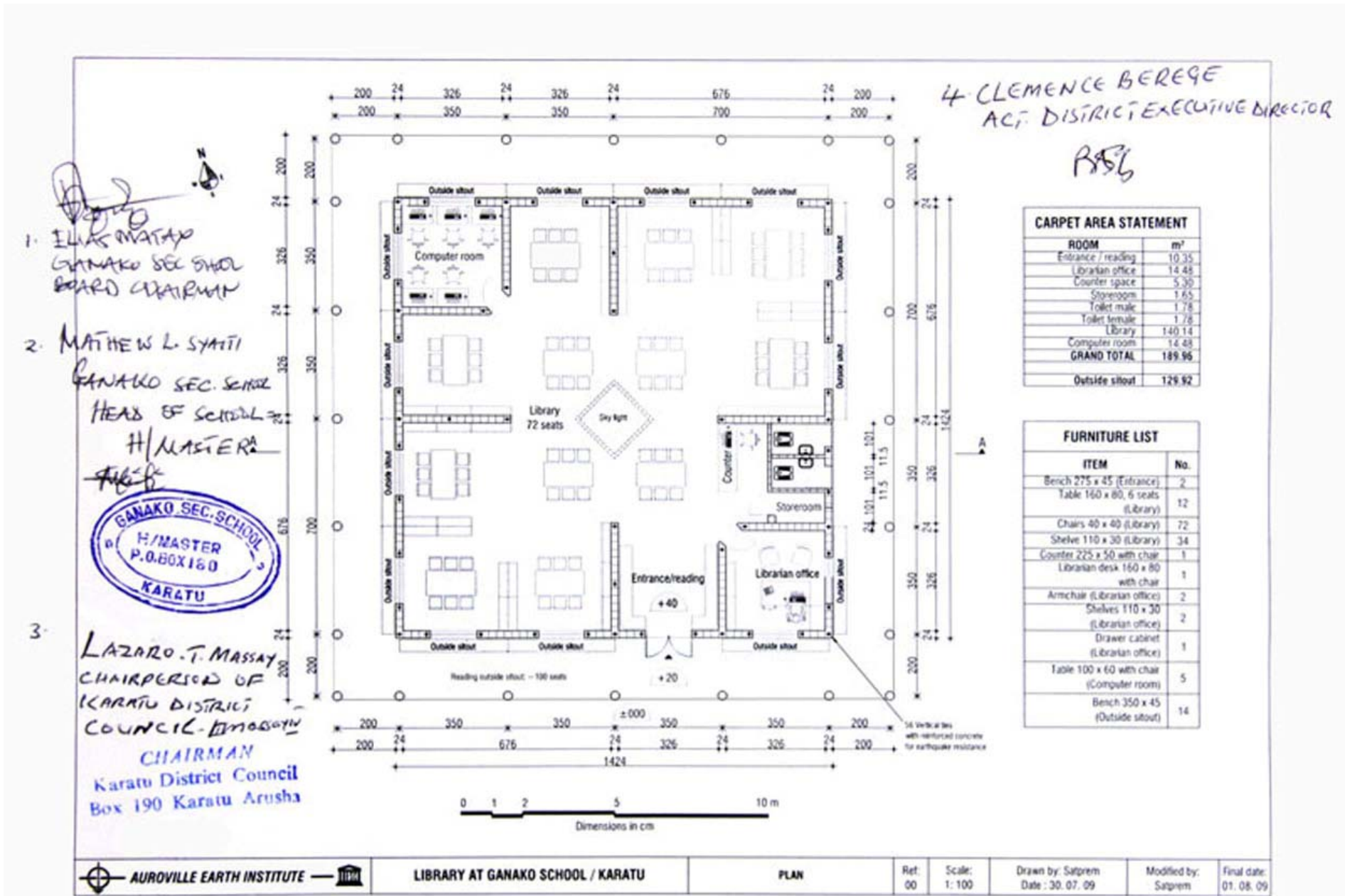
*Starting block making*



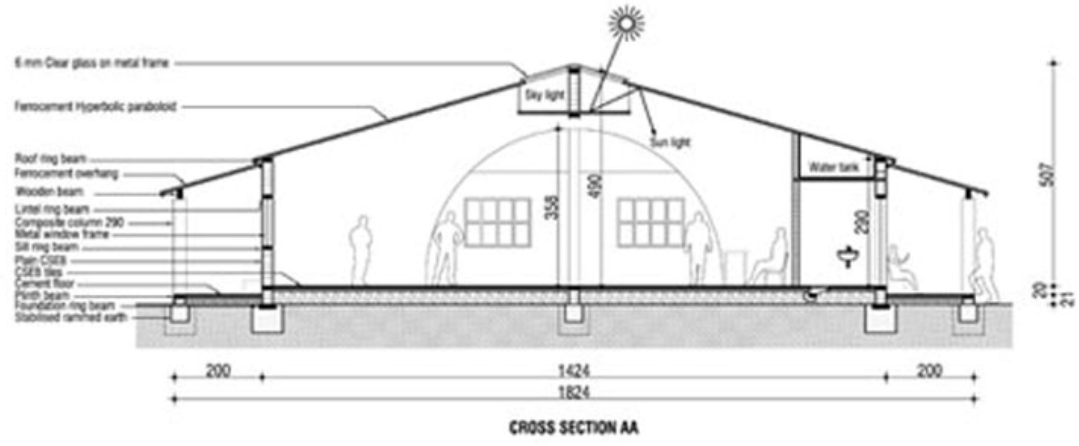
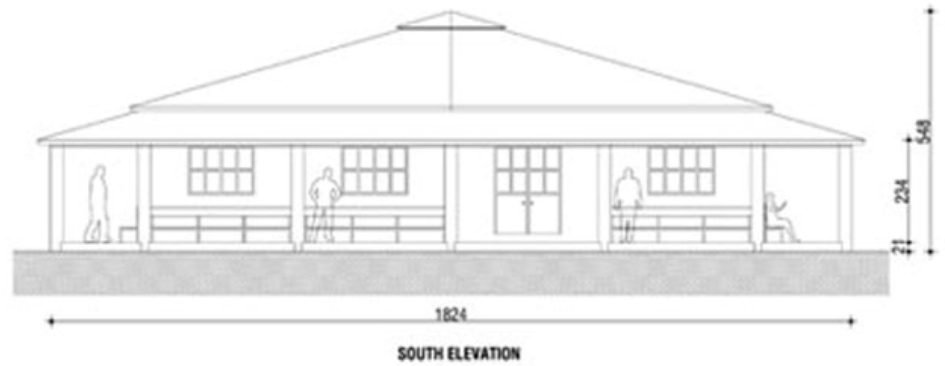
*Producing U blocks*



*Final stacking of the block and curing below plastic sheets*



Plan of the library with the approval signatures of the local authorities



- 6 mm Clear glass in metal frame
- Ferrocement Hyperbolic paraboloid
- Roof ring beam
- Ferrocement overhang
- Wooden beam
- Lintel ring beam
- Composite column 290
- Metal window frame
- Sill ring beam
- Pipe-Clack
- CSEB Slab
- Cement floor
- Hand beam
- Foundation ring beam
- Stabilised rammed earth

Section and elevation of the library