

## CONSTRUCTION OF KARIAKOO MARKET

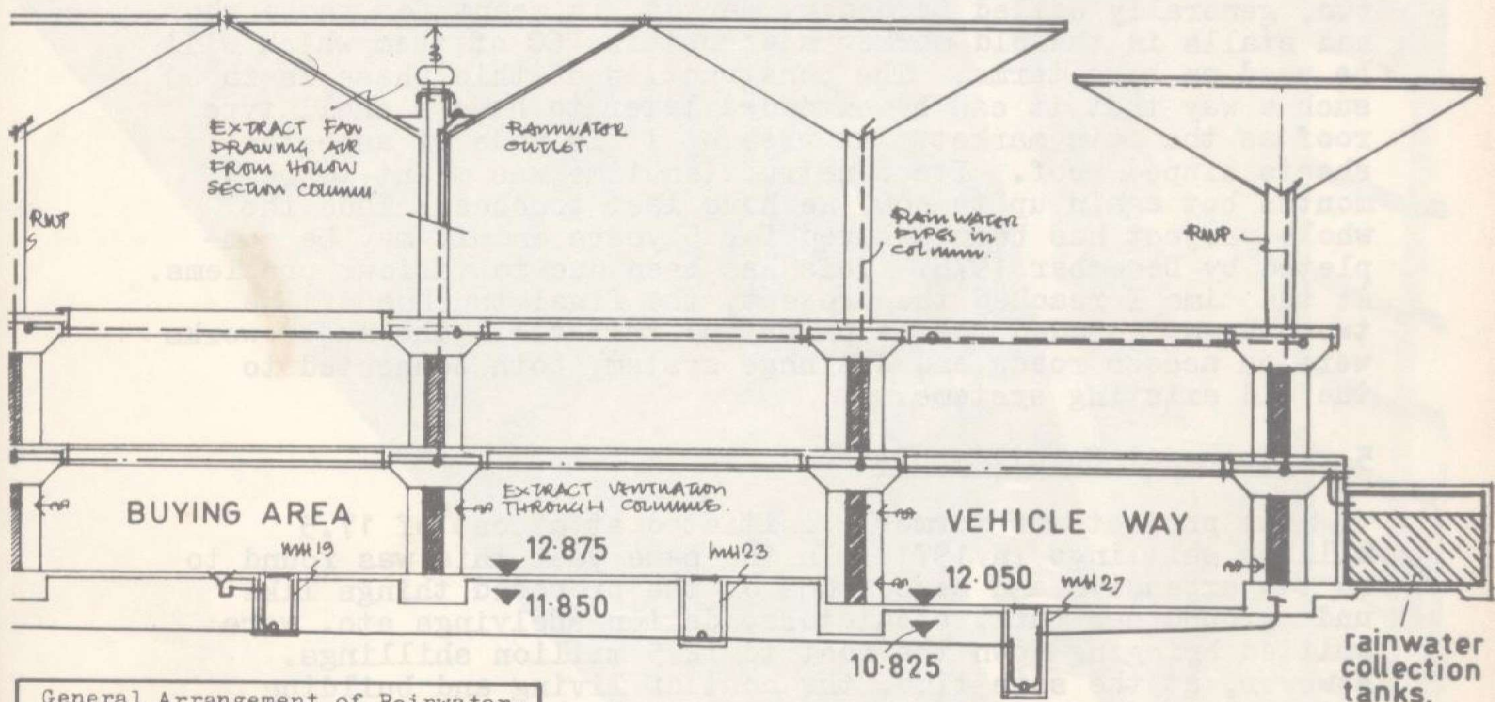
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### 1. Introduction

The project, situated where the old Kariakoo market used to stand, was initiated by the former Dar es Salaam City Council in 1971. The aim was to have a multi-purpose market for all Dar es Salaam residents under a new name of Kariakoo Market Corporation. It is anticipated that, once this has gone into full swing, there will be built branches at Ilala, Kinondoni, and Temeke replacing all old ones but essentially leaving almost all former compartment owners who will be able to pay the rent to the corporation. The market will provide people with fresh fish and meat (Dar es Salaam Development Corporation, D.D.C.); all non-perishable goods, live chicken, and also with compartments for a number of national institutions, such as Tanzania Elimu Supplies, Bora Shoes Company, Natex, and UFI.

### 2. Type of Construction

The building consists of a basement floor, ground floor and first floor with an impressive roof made of hyperbolic paraboloid shells to collect rain water which is in turn directed to a tank through hollow columns. An underground tunnel passes through the basement where all goods brought in are deposited and taken to respective floors by hydraulic lifts. This lift, the only one of its kind in Tanzania was made by the OTIS Lift Co. and the rams housed in a borehole drilled by the Mowlem Construction Company.



General Arrangement of Rainwater,  
Drainage and Ventilation

June 1971

Gordon Melvin & Partners  
Consulting Engineers

section thro main market

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### 3. Contractors

The main contractors are Messrs. Mwananchi Engineering and Contracting Company (MECCO). This is a parastatal construction company responsible for most government and parastatals projects. It has sites in many parts of the country and branches at Tanga, Arusha, Mwanza and Mbeya while Dar es Salaam is the headquarters. The sub-contractors responsible to MECCO include Thornton and Turpin - plumbers, Barkeley Electrical for electrical installations, AISCO for air conditioning, etc. Others involved in this market include:

- (a) B.J. Amuli - Architects - This is a privately owned company stationed in Dar es Salaam.
- (b) Gordon Melvin & Partners - Consulting Engineers. An East Africa firm with branches in Arusha and Mombasa while Dar es Salaam is the headquarters.
- (c) Armstrong and Duncan - Quantity Surveyors - This is also an E.A. Company with a branch in Dar es Salaam.

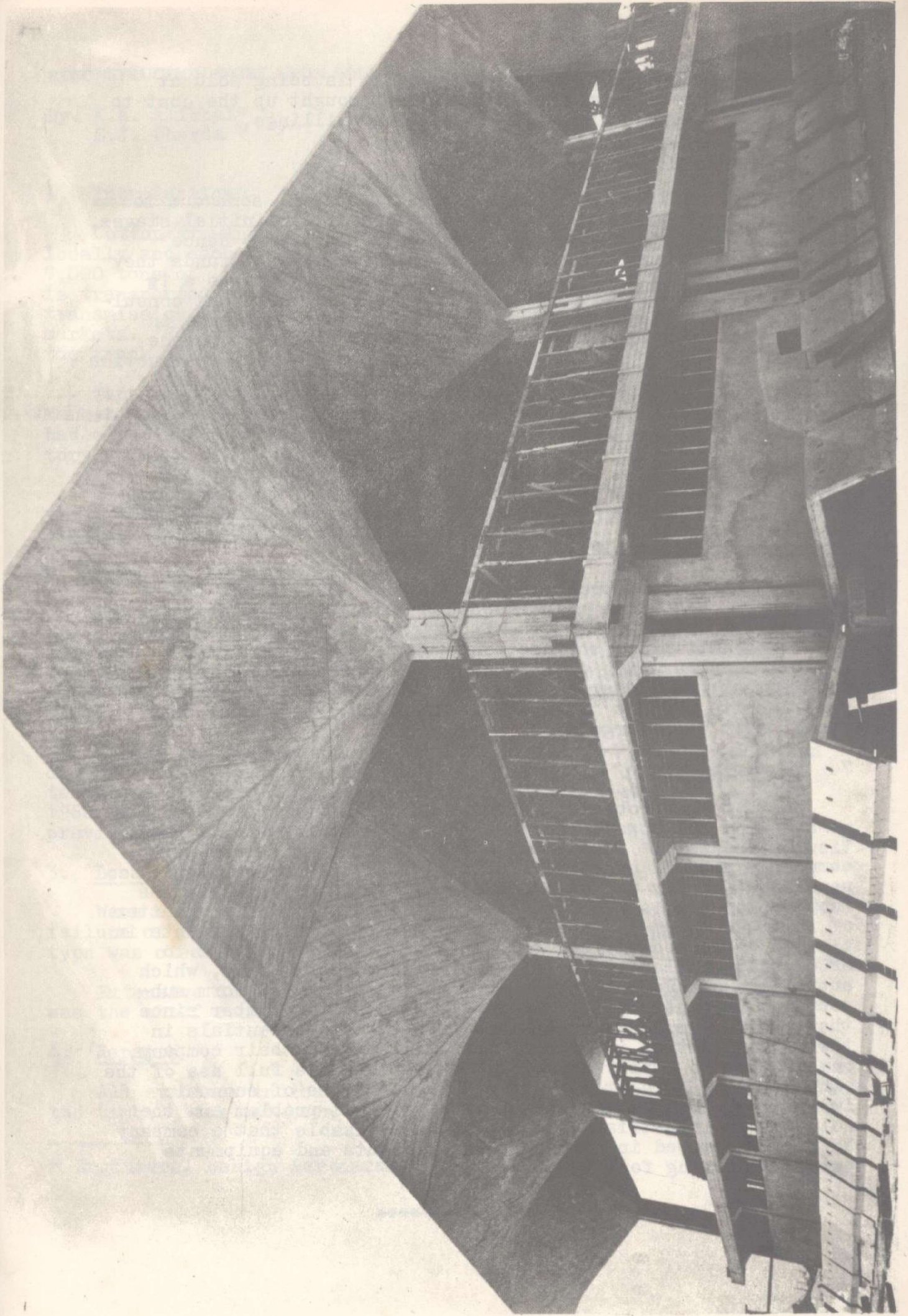
### 4. Construction Process

The project was divided into two phases. The first one (Phase I) generally called Main Market includes the basement floor where we have all cold rooms for D.D.C. auction mart, water tank, live chicken cages, stores and the Link Block. When the project was started, it was anticipated that this Phase would last 6 months but up to now (5 years later), the phase is still at its final touches. The Link Block, having a basement floor only, links Phase one and Phase two. Phase two, generally called Secondary market, is meant for those who had stalls in the old market and contains 60 of them which will be used on hire terms. The construction of this phase is in such a way that it can be extended later to have a shell type roof as the main market. At present it is made of asbestos sheets hipped roof. Its construction time was meant to be 3 months but again up to now, we have last touches. Thus the whole project has been delayed for 5 years and it may be completed by December 1975. This has been due to various problems. At the time I reached the project, the final touches of the two phases included mostly paint and terrazzo. The major works were on access roads and drainage system, both connected to the old existing systems.

### 5. Financial Commitments

The project was formerly initiated at a cost of 17.5 million shillings in 1971. In the same year this was found to be too expensive and hence some of the proposed things like underground car park, escalators, dexion shelvings etc. were omitted bringing down the cost to 12.5 million shillings. However, at the same time, the cost of living and building materials went up daily. In 1971 a labourer was getting Shs. 9/00 a day, now he gets Shs. 17/00; a bag of cement was being sold at Shs. 9/20 now it is being sold at Shs. 18/00; 1 Kg of







steel was being sold at Shs. 3/20, now it is being sold at 6/60, etc. These dramatic changes have brought up the cost to an estimated amount of Shs. 17.5 million shillings.

## 6. Problems Encountered

The contractors have faced various problems, some due to themselves and some due to others concerned. At initial stages, the client was not paying the contractors in time. Hence MECCO had financial difficulties and due to lack of funds they failed to fulfill some of the commitments; there was a 1½ months stand still early this year. The architects and consultants sometimes fail to deliver the drawings to the site in time. Variation drawings are delivered up to now and hence demolitions and reconstructions are going on. Road construction was not in the 9 months period set at the beginning of the contract. In other cases, contractors and sub-contractors delay each other, e.g. concrete cannot be placed before electrical conduits are laid.

Smooth supply of building materials is another problem. Steel required at any particular time may not be available, cement factory broke down sometimes in 1974, sand and timber suppliers are not reliable, bank transactions for import of materials are a problem.

The contractors problems also include their plant and machinery. MECCO has not had enough vehicles and plants for all its projects. Their crushing machine at Kunduchi Quarry is at standstill for the past one year - hence MECCO has hired a small machine which cannot meet their demands, not to forget the weather; all external works stop during rainy seasons. Thus despite MECCO's trained and experienced personnel they cannot meet time targets.

## 7. Recommendations

Most of the problems are not repetitive and bankruptcy has no solution. I however suggest that all drawings for a particular project be submitted to the contractors before work commences and all concerned (client or architect) be highly penalised for any variation orders. Pushing up both parties (contractors and sub-contractors) could help if it is a matter of negligence and as to suppliers negotiations and payments in time to be respected. At this point, I want to suggest to MECCO that similar to their owning of Kunduchi Quarry, which supplied crushed rock aggregates, they can as well form subsections responsible for the supply of sand and timber since they are very much aware that these are basic essentials in their construction industry. This will extend their company, enable them to employ a variety of people, make full use of the manpower they have at present and will also be of economic importance. Bank transactions is a national problem and the solution is industrialization. It is advisable that a company be fully equipped in both personnel, plants and equipments before tendering for any project.

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