

DESIGN ENGINEERING ASPECT OF LOCAL HOUSING CONSTRUCTIONS:
RELIABILITY, DURABILITY AND VULNERABILITY CONSIDERATION

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1000 stabilised soil blocks needed for a 50 m² dwelling in about 10 working days.

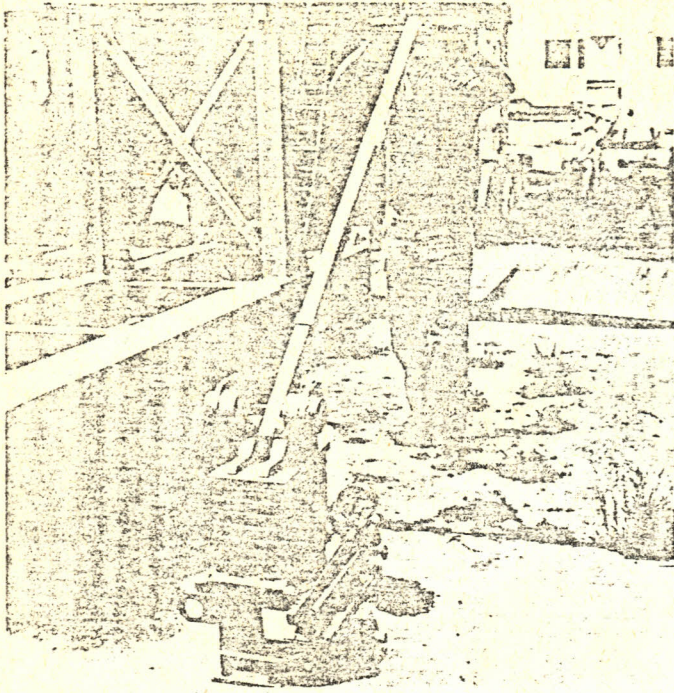


Figure 2 The BREPAK block making machine

Overseas Development Administration (ODA) supported the first overseas field trial in Kenya of the BREPAK block making machine,

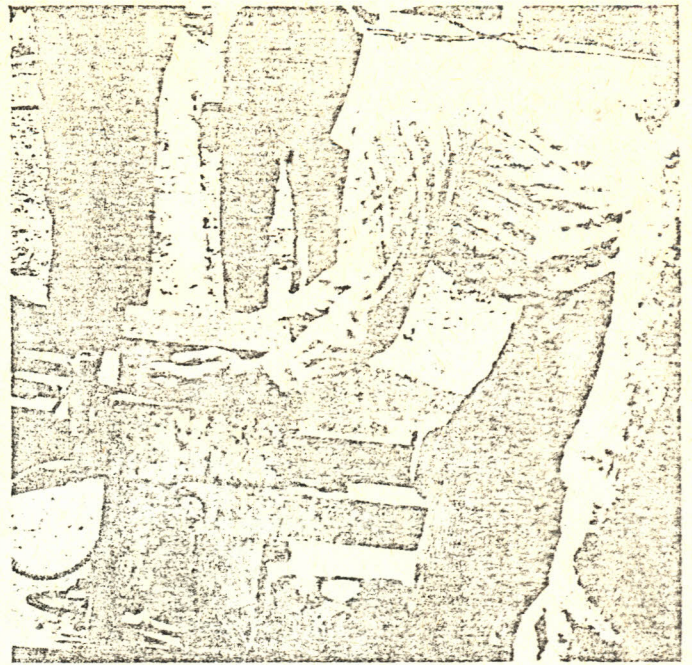
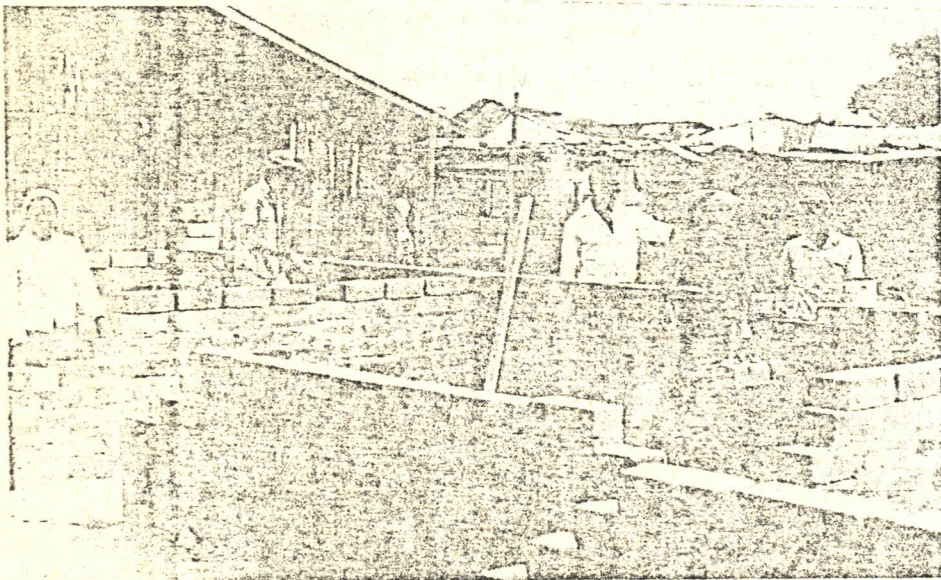


Figure 3 A stabilised soil block being lifted from the BREPAK machine

The first aspect dealt with laboratory tests to identify suitable local soils for stabilisation and to determine the optimum moisture contents for these soils. The most economic proportion of different stabilisers for the various soils was then selected. Sample



The medical clinic partly constructed in Nairobi. This clinic was constructed at a cost of £31 per m² which compares favourably with a structure built with concrete blocks at a cost of £65 per m²

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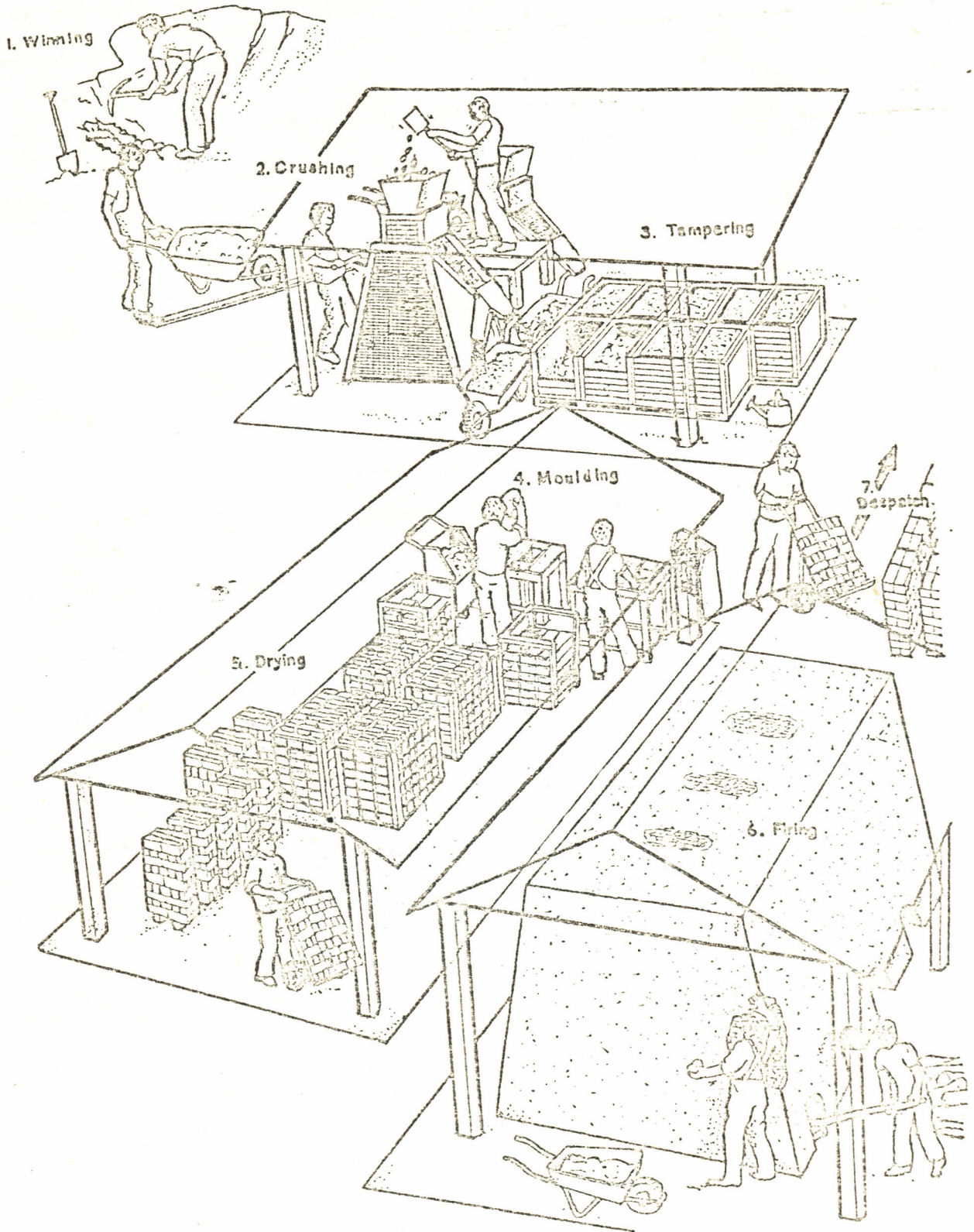


Figure IX.2: Intermediate technology brickmaking plant

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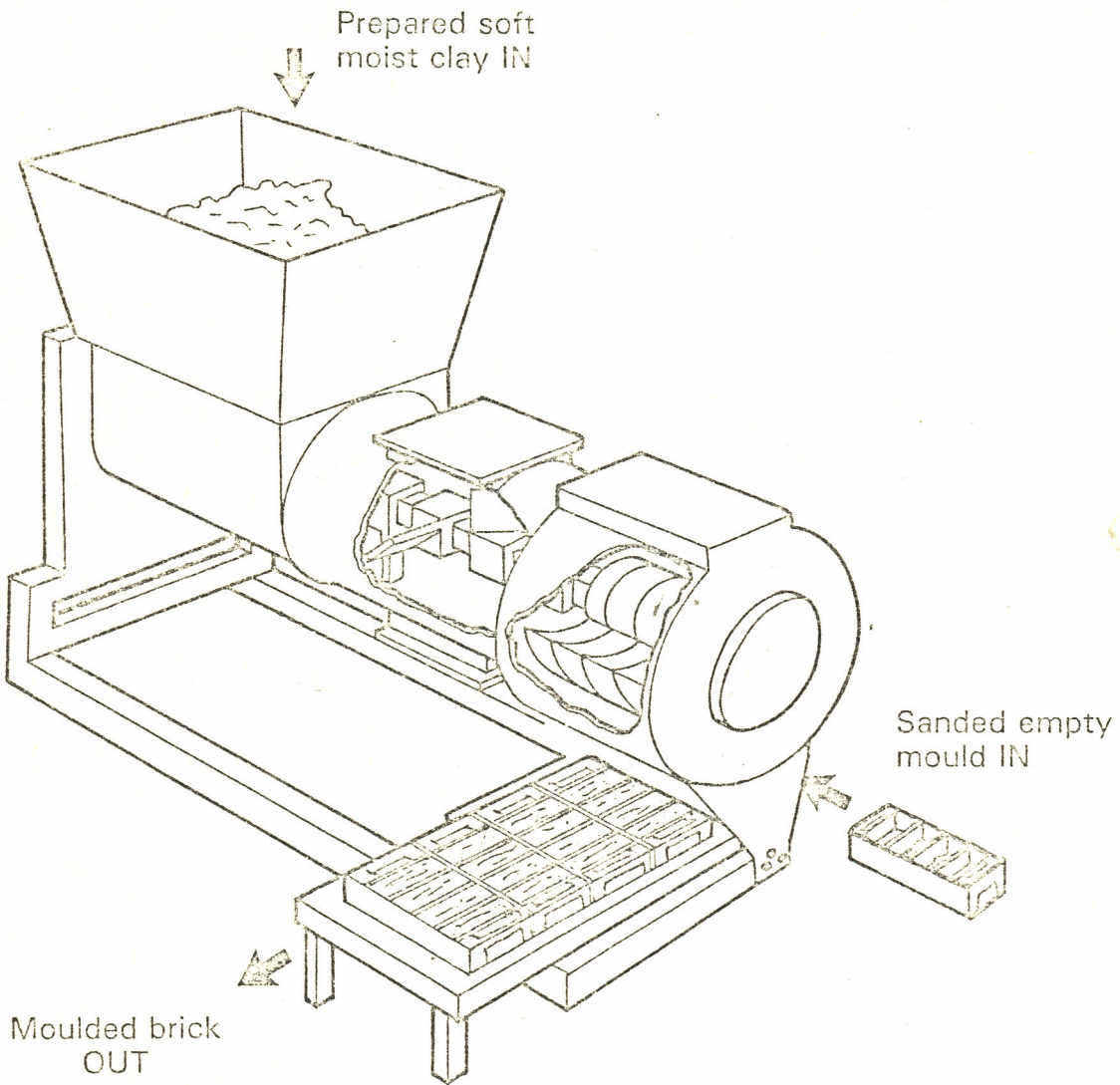


Figure V.5

Soft mud brickmoulding machine

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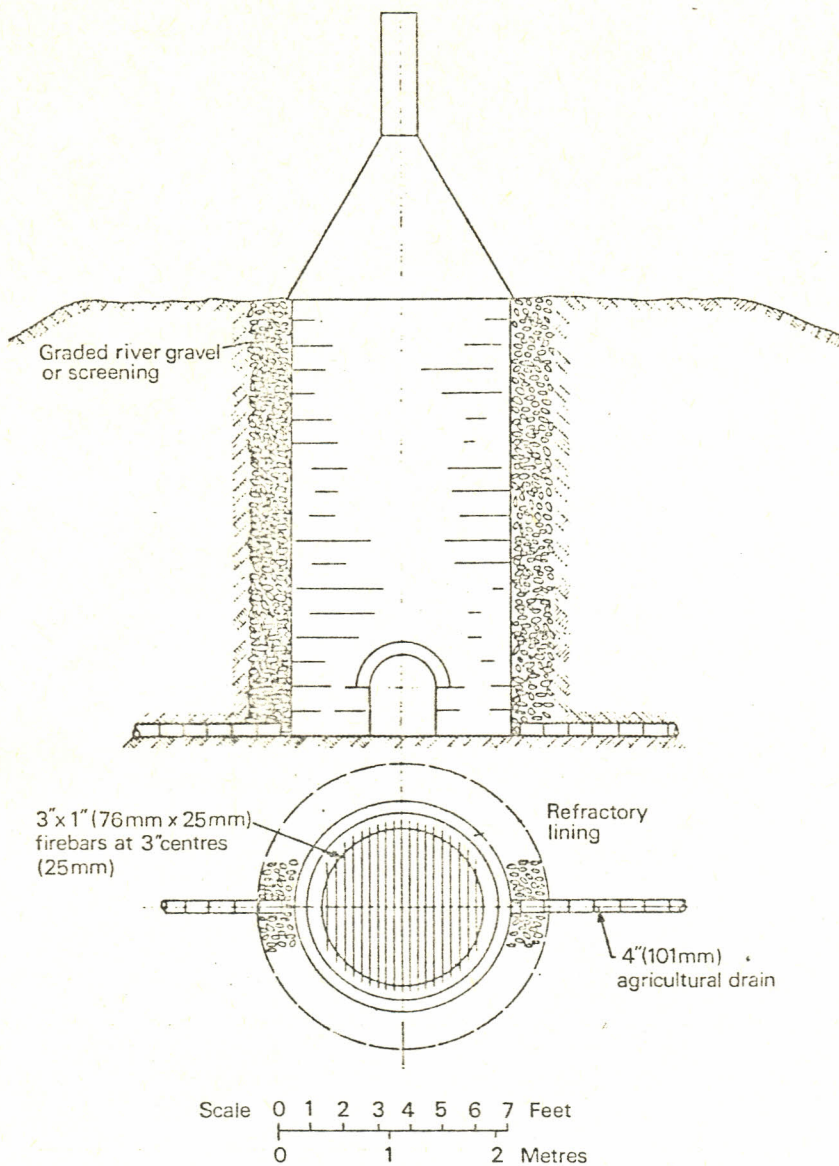


Figure 1 A simple shaft kiln for wood-firing (after Hoskings¹⁴)

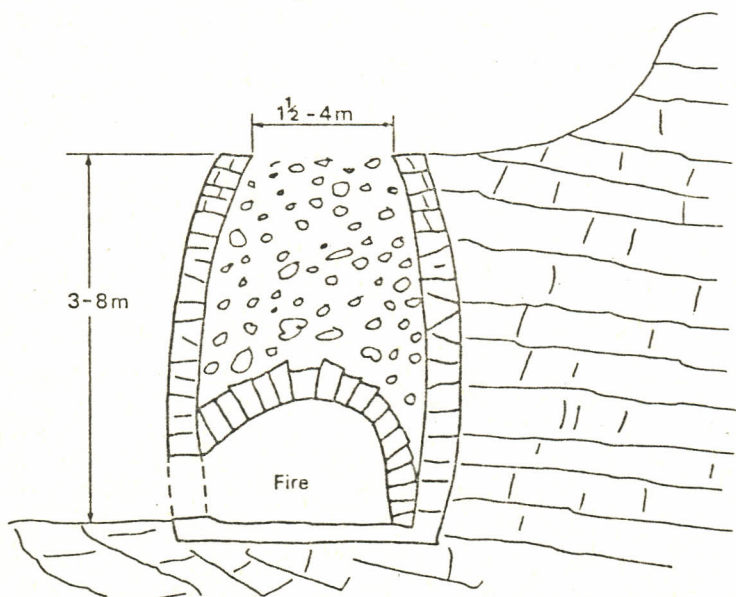


Figure 2 Cross section of typical Honduran lime kiln

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