# Taking the dust and pain out of Malta's construction industry

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In this age of lasers and computers, when so much is done to alleviate man's most strenuous tasks and with such an awareness of an ailing environment, there is much that call to tone to improve the lot of those in the construction industry. Mr. Angelo Xuereb, of Angelo Xuereb Limited, shares a few ideas about what can be changed vis-à-vis health and the environment.

WITH THE most recent developments dating back to the fifties and Sixties, the construction trade is in a bad shape, using methods which are out-dated, labour-intensive and a health hazard both to labourers and non. nazard both to labourers and non. The mere shift from picks to cutting machines, from carts to trucks and from pulleys to cranes has brought improvement in this traditional trade a stalemate.

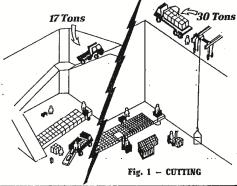
#### Antiquated

The antiquated way in which stone is quarried, dressed and transported leaves much to be desired. In this era of advanced technology and millimetrie precision, irregularities and discrepancies even in the size of stone blocks cannot be tolerated. The method used to cut the stone from a quarry is not only back-breaking and unhealthy.

product is also an irregular, dusty, stone block, still in need to be regularised to the correct measurement through on-site dressing.

measurement through on-sue dressing.
I recommend quarrying a stone block of lesser weight than the traditional 70kg block. This "new" stone block would weigh 18kg, providing less of a strain to carry. Using modern and more efficient machinery would mean

(Continued on page XV)



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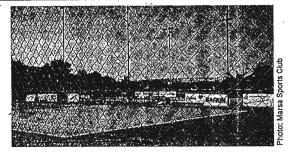
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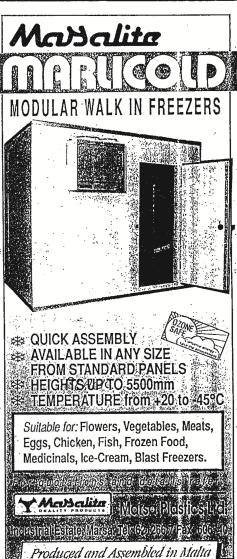


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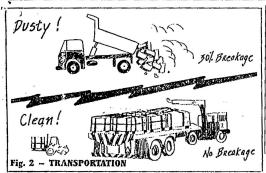
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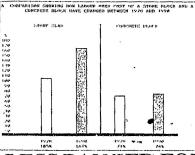
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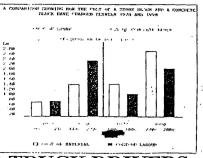


by the people who care



70 Kilos





### LESS DANGER FOR TRUCK DRIVERS

greater precision in the cutting, producing a more regular block. The mere introduction of a fork-lift and pallets would work wonders for labourers' backs.

#### More work done

The smaller, accurately cut block would enhance the rhythm of work. It is estimated that daily output would rise from 400n<sup>2</sup> to 1,000m<sup>2</sup>. The use of a gentry crane at road level to pull up palets stacked with stone blocks, secured tightly to the pallets with straps, would do away with the danger of a truck having to carry a 17-ton load up a steep, unguarded and unsafe slope, a risk not only to unhelmeted workers

(Continued on page XXII)

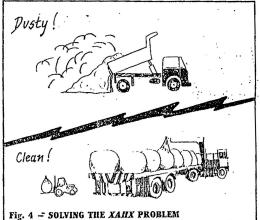
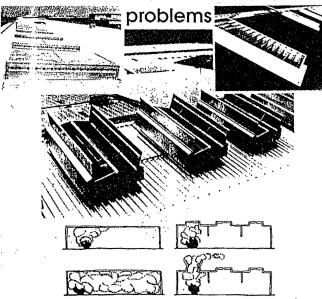




Fig. 3 - LAYING

18 Kilos

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### LETISED TRAILERS TO REPLACE TRUCKS

(Continued from page XY)

(Continued from page XV)

below but also to the driver loaded on trailers ready to be building site, permanently and is transported to the building site only replaced when empty.

What I propose is that 30 tons of, (see figure 1). When possible, the Another fully laden trailer would

	1984	1985	1986
Employers	400	347	342
Employees	4.577	4,295	3,124
Gross Output (Lin millions)	37,065	31,634	22,844
Net Output (Lm millions)	19,009	17,055	13,550
Gross Output per head (Lm)	8,089	7,365	7,312
Net Output per head (Lm)	4,153	3.971	4,337
Value of materials used	-	•••	
(Lm millions)	15.672	11,964	8,389
Wages and Salaries (Lan millions)	9,410	8,925	7,467
From the Abstrac	t of Statistics 12	87,	



then be brought to the site and the empty one taken away.
The arrival of the stone blocks on the building site proves to be a rather unsightly confusion of chipped blocks and flying dust. The already further irregular blocks have to be passed through a stone-dressing machine on site. These corrections, needed to produce a regular block to try to give a neat finish to constructions, are expensive both in financial and expensive both in financial and man-power terms. With the ad-ded bonus of dust particles let loose in our already much-polluted air! (It is not surprising that so many labourers are hay fever and asthma sufferers.)

#### **Dust solution**

A solution to all these dust problems is the direct transfer of the "new" stone blocks on their pallets. As a consequence, the 30% average breakage and chipping of blocks will be completely eliminated. Besides, the dust, which invariably clouds our islands, would diminish considerably. The perilous habit of elevating blocks with chains to vertiginous heights would also be improved through the mere introduction of the use of pallets (see figure 2).

My suggestion to reduce the size of the traditional 9" x 22" x 10½" block to a more compact 6" x 15" x 8" would provide a neater finish; mortar, which is usually blobbed onto the larger blocks, would now have to be evenly spread out since the lighter weight will not in itself serve as a lintol for the blocks beneath.

Blocks, which are usually carried manually on a labourer's back, could be effectively transported and raised on a specially designed trolley to the level at which the blocks are needed or carried in smaller quantities on a small trolley moved manually. Builders could use a special, adjustable platform and early the blocks quickly and easily onto the wall being built.

#### Attracting builders

These improvements will help to revive interest in the building trade. Statistics show a steep decline in the number of employees (1,453 workers less over the three years 1984-869). In spite of generous wages, the demand for builders is always on the increase. The hazards for back and neck cannot be overlooked, either, since the average weight of a stone block would be reduced to 18kg from the current 70kg (see figure 3).

To minimise the most serious hazard to the environment, ie, the lingering layer of dust in the lamester, especially heavy during our torrid summer months, jumbo bags can be used to carry the fine dust, wake. These special, waterproof bags can be carried on a pallet and lifted by crane. They are already widely used to carry eement and should be filled with ready screened wake directly from the quarry for immediate use.

immediate use.

The sand could also be presifted and ready for use. These serviceable bags, which can be opened and closed at will, would do away with the need to empty a truckload of sand in the middle of the road, much to the inconvenience of neighbours. The lingering, miniature sand dunes, which eventually cake or are washed away with the first rainfall, would be done away with completely (see figure 4).

The gigantic steps technological advances bring are making us aware of how slow we Maltese are in catching up. Unfortunately, we lag behind in many fields, particularly the construction one. Much can be improved to alleviate man's physical labours. The environment needs to be taken into consideration too.

ken into consideration too.



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