# PREPARATION OF BILL OF QUANTITIES USING COMPUTER METHODS

<u>BY</u> OLYMPIA S. PAPAMICHAEL & SIMONI D. NICOLAOU

Project Report Submitted to the Department of Civil Engineering of the Higher Technical Institute Nicosia Cyprus

June 1993

HIGHER 2079 INSTITUTE

### ACKNOWLEDGEMENTS

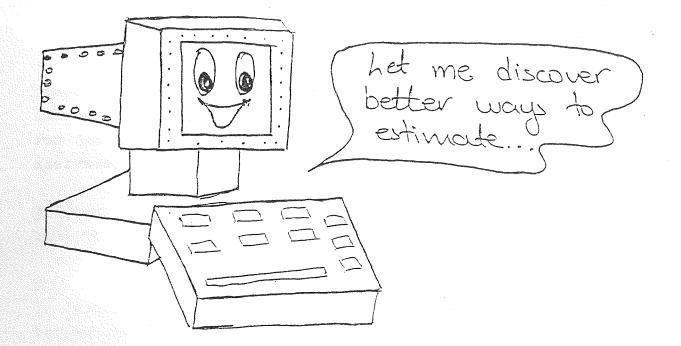
Our sincere appreciation to Mr. A. Kkolos, civil engineer, senior lecturer of H.T.I, our project supervisor, for his invaluable help before and after the selection of our project.

Likewise, our special thanks to Mr. S. Andreou, quantity surveyor, manager of M.D.A. for his assistance and guidance through all steps of our work.

Lastly, but not least, we wish to express our warm thanks to our friend P. Alvani for her help and happy spirit throughout our project.

#### INTRODUCTION

## COMPUTERS MEASURE UP!



Today with existing skills + technology complete + detailed analysis of constructions work into its smallest discrete parts is not practical. The volume of information created would be immense and the techniques have yet to be developed to use it.

Do we really want to identify and locate every brick in a building? Perhaps not, but such measurement is possible. But what does this mean for estimating - Quantity Surveying?

A review of a No of estimating programs shows that their designers appear to have said that computers are ideal tools for Quantity Serveying. Now that we have computers let us estimate as we have done in the past. But let us do it more efficiently. None seems to have said:

-1-

"Now that we have computers let us discover better ways to estimate".

### CONTENTS

### 1.0: INTRODUCTION.

2.0: SECTION ONE

2.1: Drafting - CAD

3.0: SECTION TWO

3.1: The Bill of Quantities

4.0: SECTION THREE

4.1: Digitizer

#### 5.0: SECTION FOUR

5.1: B.Q Micro computerised system

### 6.0: TAKING OFF MEASUREMENTS

6.1: Manually6.2: Using digitizer

### 7.0: BILL OF <u>OUANTITIES</u>

7.1: B.O.Q 7.2: Prised B.O.Q

8.0 : CONCLUSIONS

9.0 : APPENDICES

10.0 : DRAWINGS