such celebrities as Canova, who was one of his great friends.

It seems that the changes which followed the disappearance from Malta of the Order of St. John dissuaded Barth from returning to pass his last days in the Island where he was born. When he died, his most valuable collection of statues, paintings and cameos was taken over by the Emperor Leopold II.

It is a pity that Barth never cared to put down in writing his public lectures. He published very little. In 1797, his Monograph "Cataract Extraction for the practising surgeon" appeared in Vienna. His other publication "Table of muscles" is the fruit of his accurate dissections.

Barth's greatest and most useful achievement was the establishment of the first University Eye Clinic, where pupils from all over Europe were instructed, trained and encouraged to lay the foundations of similar eye clinics in their own countries.

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#### THE CAUSES OF TOOTH LOSS

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The great majority of permanent teeth are lost because of dental caries or periodontal disease. Whilst everyone is painfully aware of the consequences of dental caries, the insidious and painless breakdown of the supporting structures of the teeth is accepted as a natural process of ageing. This fatalistic attitude is, however, wrong and recent increased interest in the prevention and treatment of periodontal disease has clearly shown that intelligent management may avoid or considerably

delay the tragedy of edentulousness.

Careful planning of preventive dental health measures must be based on accurate assessment of the factors causing tooth loss. Surveys in many parts of the world have already shown that periodontal disease is of major aetiological importance. This paper reports a pilot study into the causes of tooth loss in patients attending the Dental Department, St. Luke's Hospital, carried out in July 1964.

#### Materials and methods

A note was made of 500 consecutive dental extractions, under local anaesthesia, from 297 patients (117 males, 180 females). The causes of tooth loss were classified into three main groups, viz:—(A) Caries; teeth, including roots, extracted because of complications directly attributable to dental caries. (B) Periodontal disease. (C) Sound teeth extracted for prosthetic or orthodontic reasons.

#### Results

Table I shows that caries and periodontal diseases are evenly balanced as factors causing tooth loss but when the figures are broken down into those for persons under 30 years and those over 30 years of age, a different pattern emerges (Table II). The increase of periodontal disease as the factor of tooth loss from 3.2 per cent. to 43.4 per cent. is of great practical importance. Indeed, periodontal disease is responsible for the loss of approximately 60 per cent. of teeth extracted from persons over 30 years of age.

#### Comment

Epidemiological studies in several parts of the world (Pelton et al., 1964; Mehta et al., 1958; Lacronique, 1964 and Jackson, 1965) have shown that periodontal disease becomes the major cause of tooth loss in adults. Valid comparisons are difficult in view of the greatly varied racial, social and economic background of the groups studied. The personnel studied must always be clearly defined. Our results are drawn from a selected group of low income bracket and of mixed rural or

urban origin. Similar studies on the middle class population of Malta would be useful but can only be carried out by the general dental practitioners. The data required for each dental extraction would be sex, age, cause of dental extraction, type of anaesthesia and tooth extracted. A consecutive series of extractions must be recorded to avoid any bias.

World public dental health authorities are realising that the only hope of reducing the present high incidence of dental disease is through preventive measures (W.H.O., 1961). Dental caries has its highest incidence during childhood and early adult life and from then on periodontal disease becomes the chief factor of tooth loss. Epidemiological surveys on the incidence of periodontal disease in school children have shown that the seeds of this disorder are already sown at that early age (James, 1963), and it is only because

of the chronicity of the disease that its

effects show mainly during late adult life.

It is being increasingly realised that the only hope of preventing the ravages of periodontal disease is through regular dental attention commencing at an early age. Basically this consists of a balanced diet and correct oral hygiene carried out in cooperation with the family dental practitioner, who must be made more aware that periodontal disease is just as important a factor in tooth loss as dental caries.

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# TABLE I Causes of tooth loss

	Caries	Periodontal	Prosthetic	Total
No. of teeth	248	233	19	500
Percentage	49.6	46.6	3.8	100

### TABLE II

## Causes of tooth loss in persons under 30 and over 30 years

Under 30	111 (22.2%)	16 (3.2%)		127 (25%)
Over 30	137 (27.4%)	217 (43.4%)	19 (3.8%)	373 (75%)