

## Summary

### **Chapter One: Technology of Map Manufacture**

The first chapter discusses the evolution of historical maps, their manufacture techniques, and materials used in their production throughout the history.

### **Chapter Two: Deterioration Factors Affecting Historical Maps**

Historical maps are prone to deterioration by chemical, physical, biological and other factors that may eventually lead to their total destruction. Intrinsic deterioration factors and Extrinsic deterioration factors (chemical deterioration, physical deterioration, biological deterioration, manmade damage).

### **Chapter Three: Treatment and Conservation of Historical Maps**

This chapter discusses the following points: scientific documentation, techniques used in examination and analysis of maps and treatment and conservation of maps (Sterilization, Cleaning, Humidification and Flattening, Removal of varnish, Removal of map backing, Deacidification, Mending tears and compensating for losses, Retouching, Reapplication of these secondary support, display and storage).

### **Chapter Four: experimental studies**

- First experiment: preparation of paper samples with properties similar to that of the samples collected from old maps.
- Second experiment: testing six different types of adhesives to determine which is suitable for use in fixing secondary supports. Two concentrations were used for each adhesive 6% and 8%.
- Third experiment: evaluation of three different secondary support removal methods.
- Fourth experiment: evaluation of seven sizing agents.

### **Chapter Five: applied section**

Chapter five deals with the restoration of 12 historical maps:

1. Map of Africa dating back to 1787 (in English).
2. Map of Fayum province dating back to 1892 (in English).
3. Sharif Al-Idriss map of earth dating back to 1370/560AH and printed in Arabic in 1951.
4. Atlas of Prince Omar Toson which includes nine maps representing the provinces of Egypt and their titles since the Islamic conquest till 1934.