

River Engineering and Stream Restoration IIb - Waterways

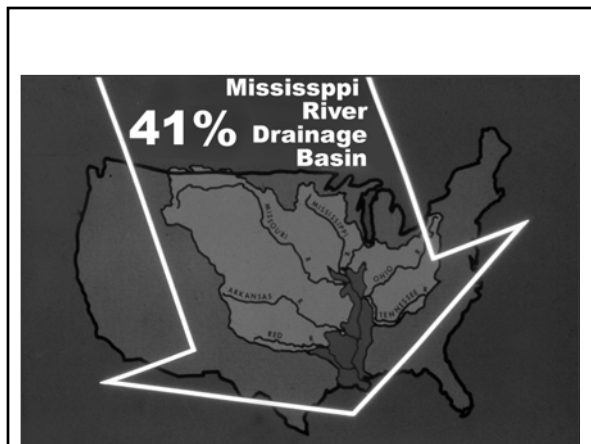
Pierre Y. Julien

Hong Kong - December 2004

Objectives

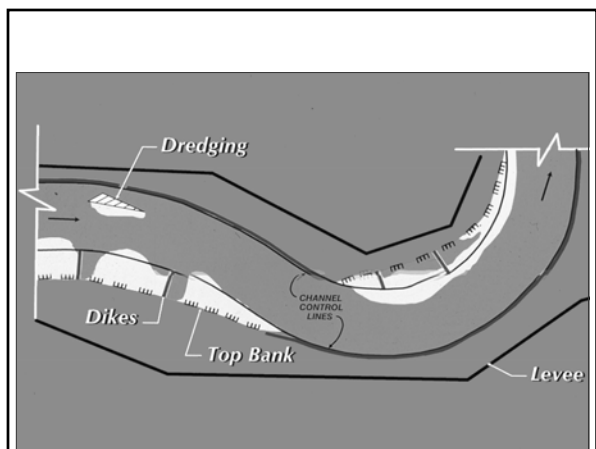
Brief overview of River Engineering and
Stream Restoration with focus on :

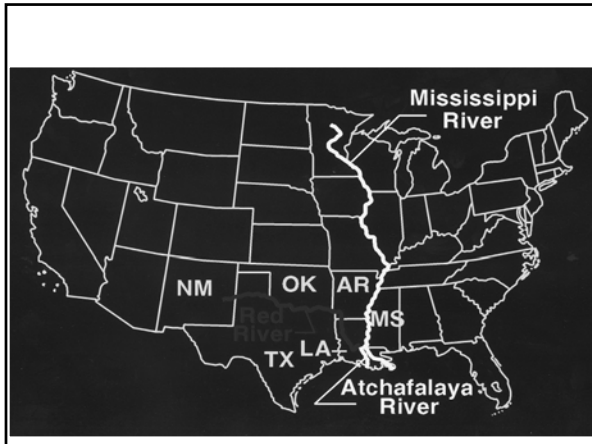
1. Navigable Waterways;
2. River Engineering.















Channel Realignment



Oxbow Preservation



Access to Oxbows



Trenchfill Revetment



Timber Pile Revetment



Stonefill Revetment



Revetment Capout

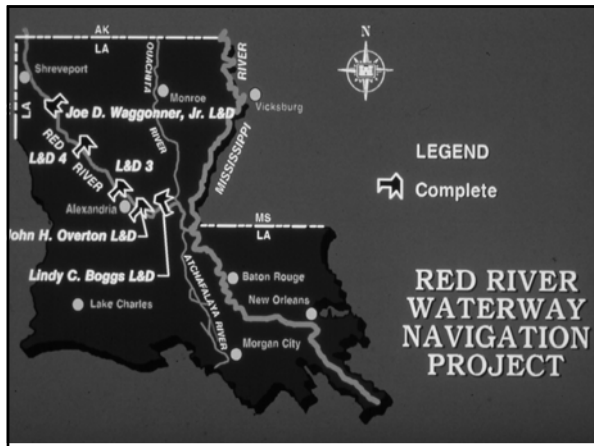


Channel Contraction

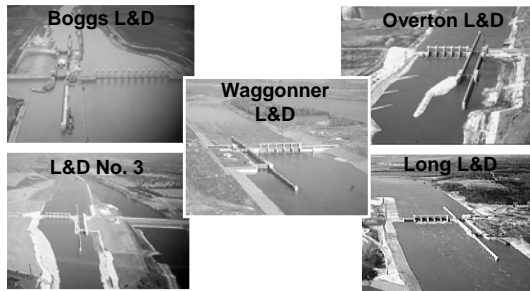


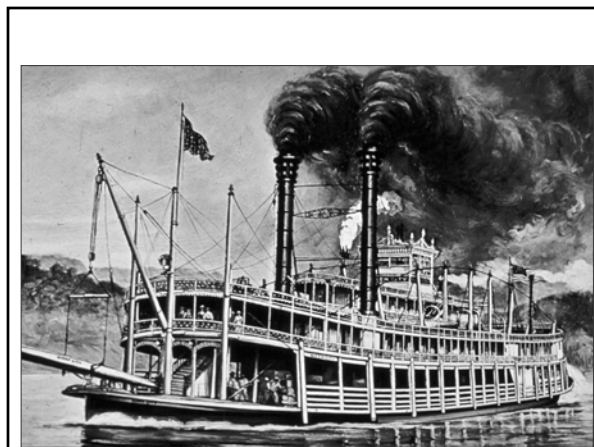
Channel Control Dikes

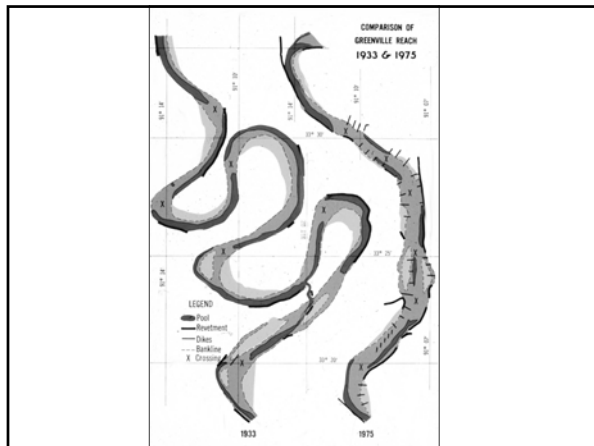


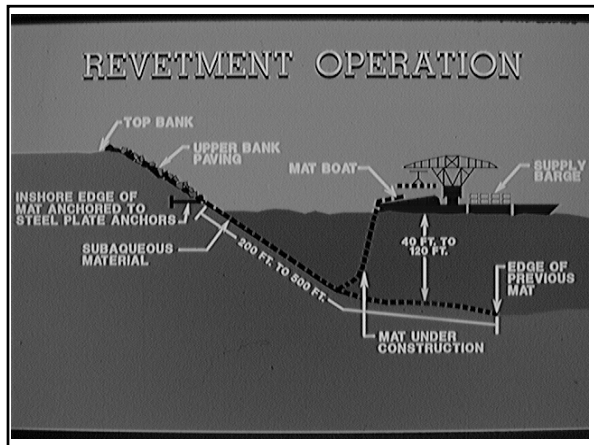


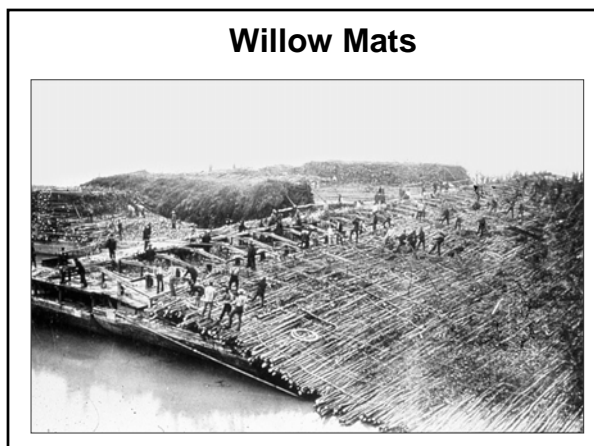
Locks and Dams









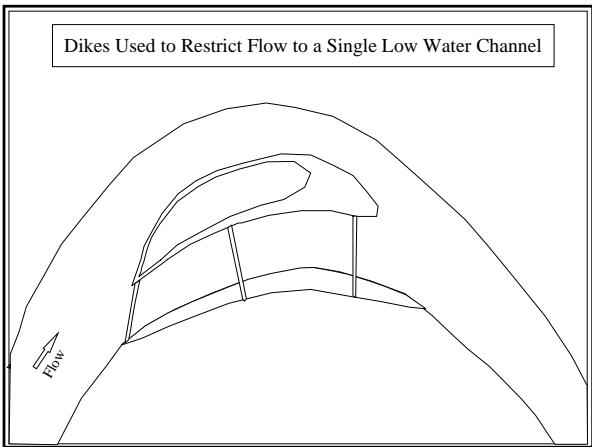














Additional Contraction Structures



Dykes



Environmental Considerations



Typical Stone Dyke



Rough Concrete Surface



Vented Dykes





Geobags



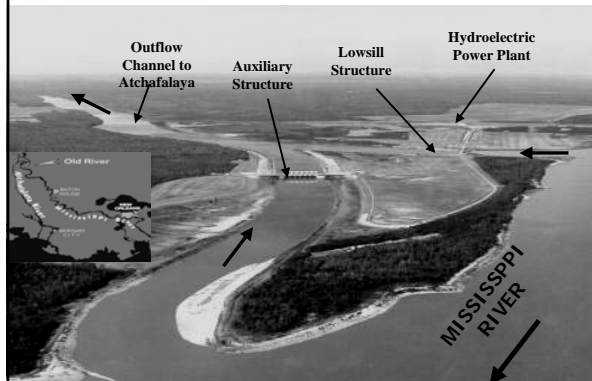
Geo Containers



Bendway Weirs



Old River Control Complex



Woody Debris - Lower Mississippi River



Erosion and River Mechanics Textbooks

