

*Stage Zero - shorthand for*  
Fully-reconnecting the River to its Wetlands, Floodplain and Hyporheic Aquifer







Channel Incision: disconnects River Channels from their Floodplains



Crowder Creek, North Mississippi: late-1970s

Photo courtesy of David S. Biedenbarn, US Army Corps of Engineers



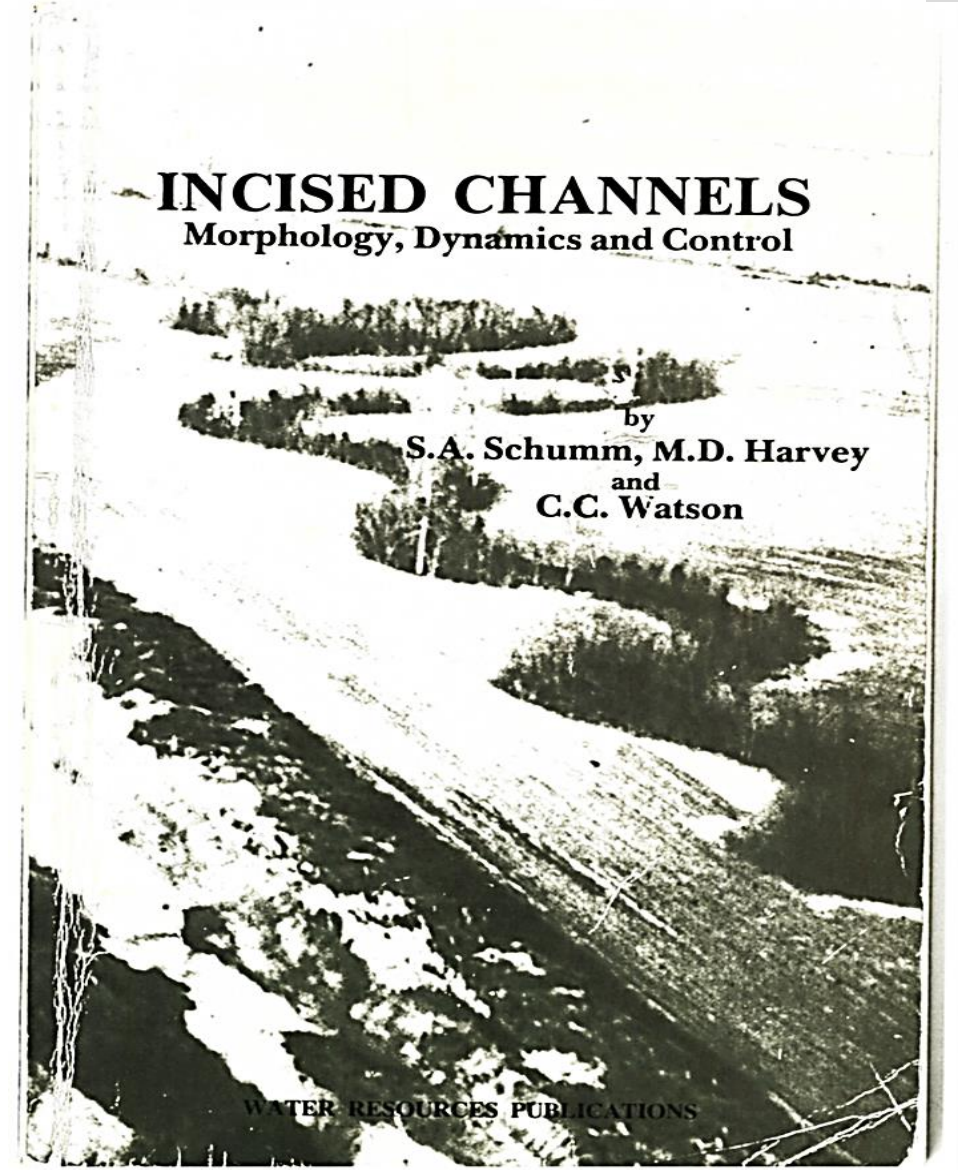
# *Channel Evolution Model*

## *INCISED CHANNELS*

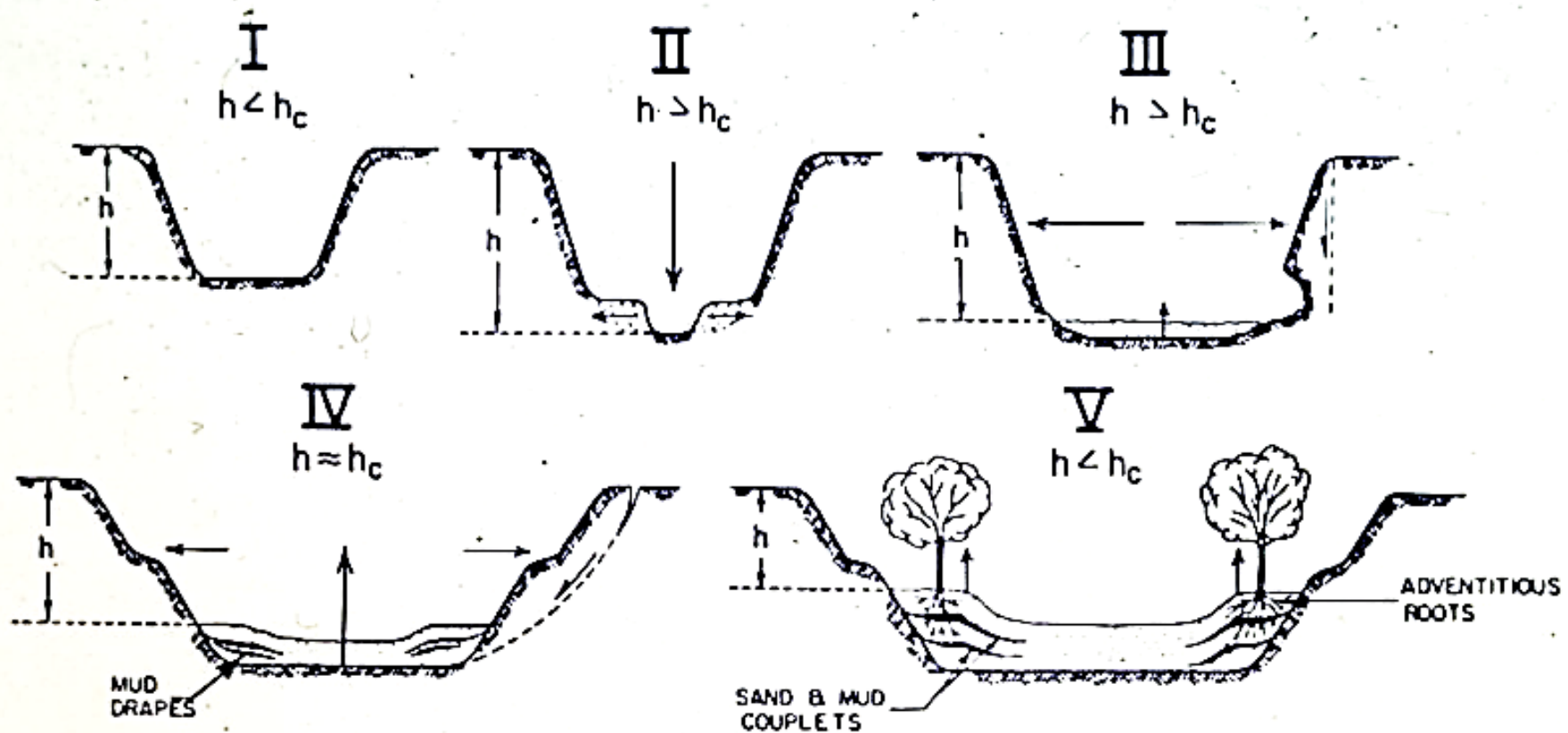
### *Morphology, Dynamics, and Control*

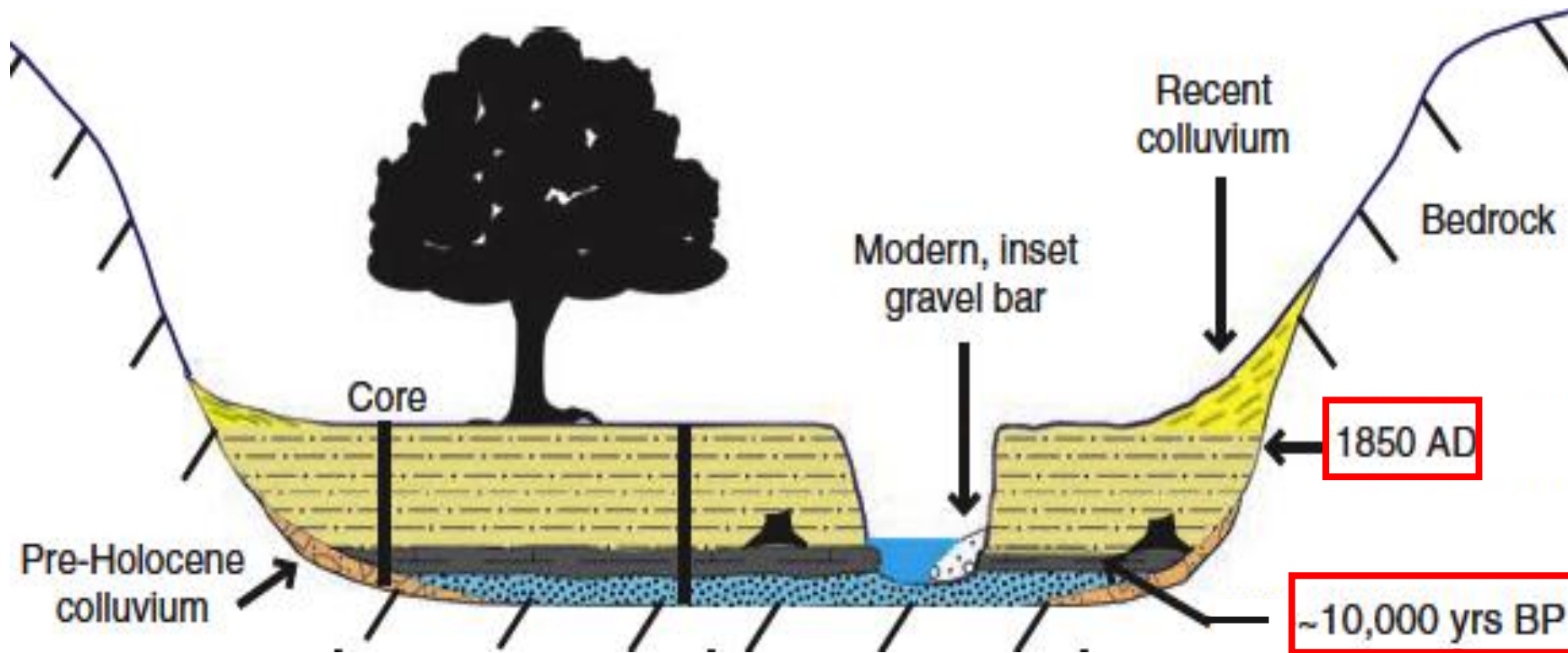
Schumm, Harvey & Watson

Water Resources Publications,  
Littleton, Colorado

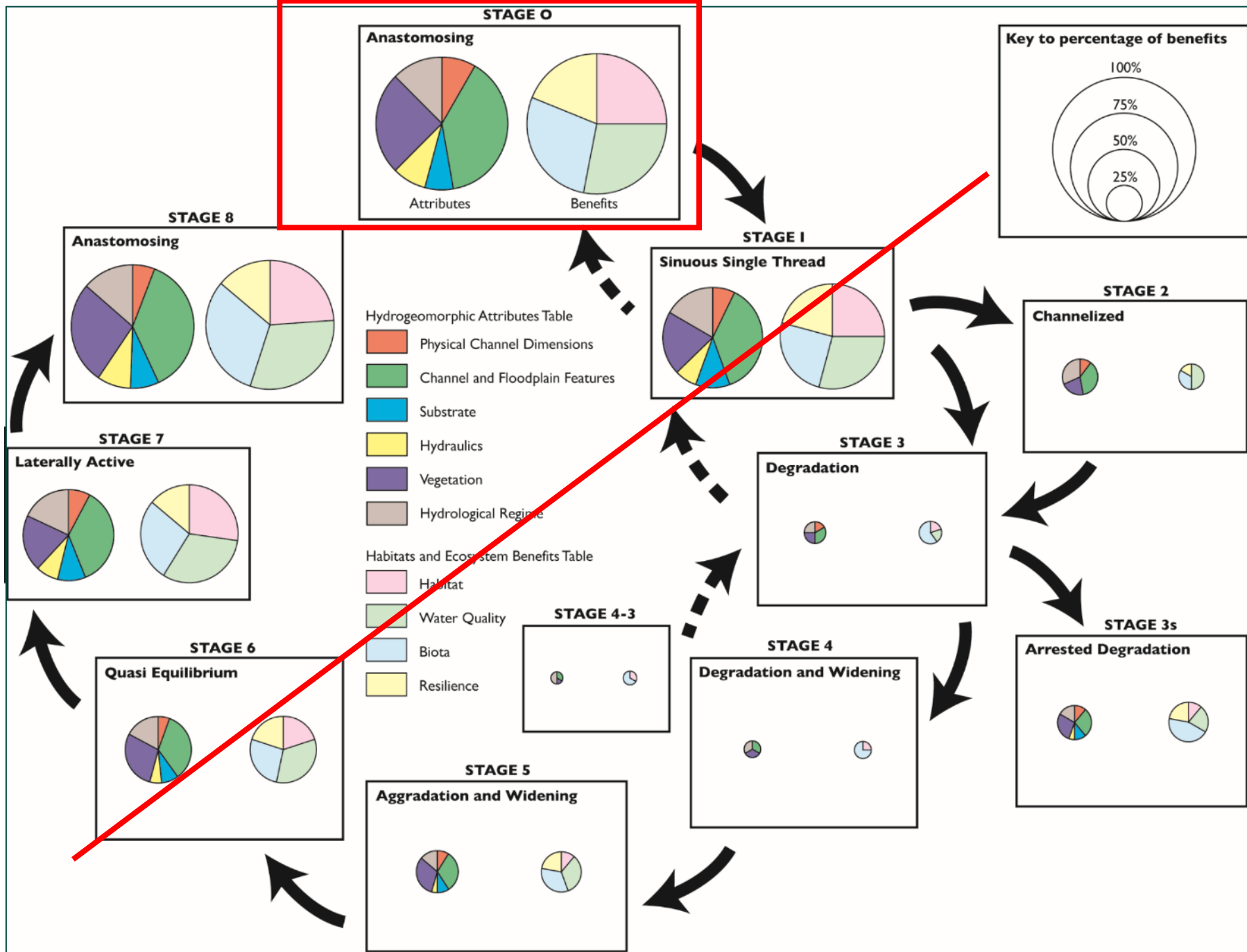


## Stages in the Channel Evolution Model





*“...before European settlement, the streams were small, anabranching channels within extensive, vegetated wetlands”*







**Stage Zero is the initial, pre-disturbance condition in the 'Stream Evolution Model' (SEM) proposed by Cluer and Thorne (2013)**

**Stage Zero is characterised by an abundance & wide range of hydromorphic attributes and ecosystem benefits, high fluvial complexity, and full connectivity between the river & its wetlands, floodplain & hyporheic aquifer**

<http://stagezeroriverrestoration.com/>

# *Thinking Outside the Channel*