Jointly Organized by



The Hong Kong University of Science and Technology Department of Civil & Environmental Engineering ASCE Hong Kong Section



SEMINAR

河流的哲学问答

Ву

Dr Zhaoyin Wang

Professor, Tsinghua University

Abstract

河流的哲學定義爲:關於河流自身演變及對人類干擾之回應的各種現象以抽象思維和實證科學爲方法的認識 論和思想體系。王兆印在60壽誕之際寫作"河流的哲學"一書,回答一系列眾所關注的問題:1、河流有哪 些生命特徵?河流是按物理學定律還是生物學定律對干擾做出反應?2、何謂河流生態動力學?各種河流生 態單元之間以何種規則相互關聯?3、河流水系服從什麼組織規律?爲什麼有的河流偏離"四-二定律"?4、 河流地貌是彈性還是塑性的?人類能不能任意改變河流地貌?5、荒山禿嶺能否變得山川秀美?怎樣治理才 能山川秀美?6、沙漠泥沙源於何處? 防治沙漠化的關鍵是什麼?7、爲什麼汶川地震造成大量崩塌滑坡泥 石流?地震侵蝕有何後果、如何管理?8、堰塞湖是資源還是災害?保存堰塞湖有多大風險、有何生態景觀效 果?9、爲什麼河床下切引發地質災害?怎樣減少崩塌與滑坡災害?10、爲什麼會發生泥石流?爲什麼穀坊 壩不能攔擋特大泥石流?如何用消能結構防治特大泥石流?11、河流必須攜帶泥沙嗎?德國人通過人工喂沙 解決河床沖刷問題是不是好辦法?12、河道網路建造遵循什麼法則-最小能耗還是最大能耗?13、怎樣看待 河流阻力?洪水來臨清障減阻能否提高河流防洪能力? 14、怎樣看待黃河治理中的東水攻沙方略?15、大 河之治始於河口還是始於源頭?16、大壩建設對河流健康有利還是有弊?拆壩是恢復生態的好辦法嗎?17、 三門峽水庫應否廢掉?廢除三門峽水庫能不能恢復富饒的八百里秦川?18、雅魯藏布水能開發可能會造成什 麼後果? 19、怎樣定量評價河流水生熊?破壞的河流水生熊如何修復? 20、引入更多外來物種還是嚴格防 止外來物種入侵?如何防治有害物種入侵?21、河流治理應該朝著什麼方向?以人爲本還是以河爲本?22、 什麼是河流綜合管理?怎樣進行綜合治理和管理? 以上感興趣的問題都可以辯論, 但是由於時間限制, 本次 主講的是3、4、11、16、13 五個題目。

Date : 13 February 2012, Monday Time : 10:30 am – 12:00 noon Venue : Room 3574 (Lift 27/28)

Conference Room, Department of Civil and Environmental Engineering

The Hong Kong University of Science and Technology

Clearwater Bay, Kowloon

Language: Chinese (presentation and discussion) and English (discussion)

Biography

Zhaoyin WANG is a professor of the Department of Hydraulic Engineering at Tsinghua University and Chairman of the Advisory Council of the International Research and Training Center on Erosion and Sedimentation. He is Vice President of the International Association of Hydraulic Engineering Research (IAHR) and Chairman of the Division of Hydro-environment of IAHR. His research interests include sediment transportation, river ecology and integrated river management. In recognition of his scientific contributions, the Chinese Government awarded him Second National Science and Technology Progress Prize (vegetation-erosion dynamics), the Ministry of Education awarded him the First Science Prize "Modern theory of sediment transportation" and Second Science Prize "Hyperconcentrated flow"; the Ministry of Water Resources of China awarded him the First Science and Technology Progress Prize "Physical model study on sedimentation in the fluctuating backwater region of the Three Gorges Project" and Second Science and Technology Progress Prize "Training and water resources management of the Yellow River delta". Recently the ASCE awarded him the 2011 Hans Albert Einstein Award for his unique contributions for understanding of hyperconcentrated flows, debris flows, watershed vegetation-erosion dynamics, stream ecology and restoration, and integrated river basin management."