



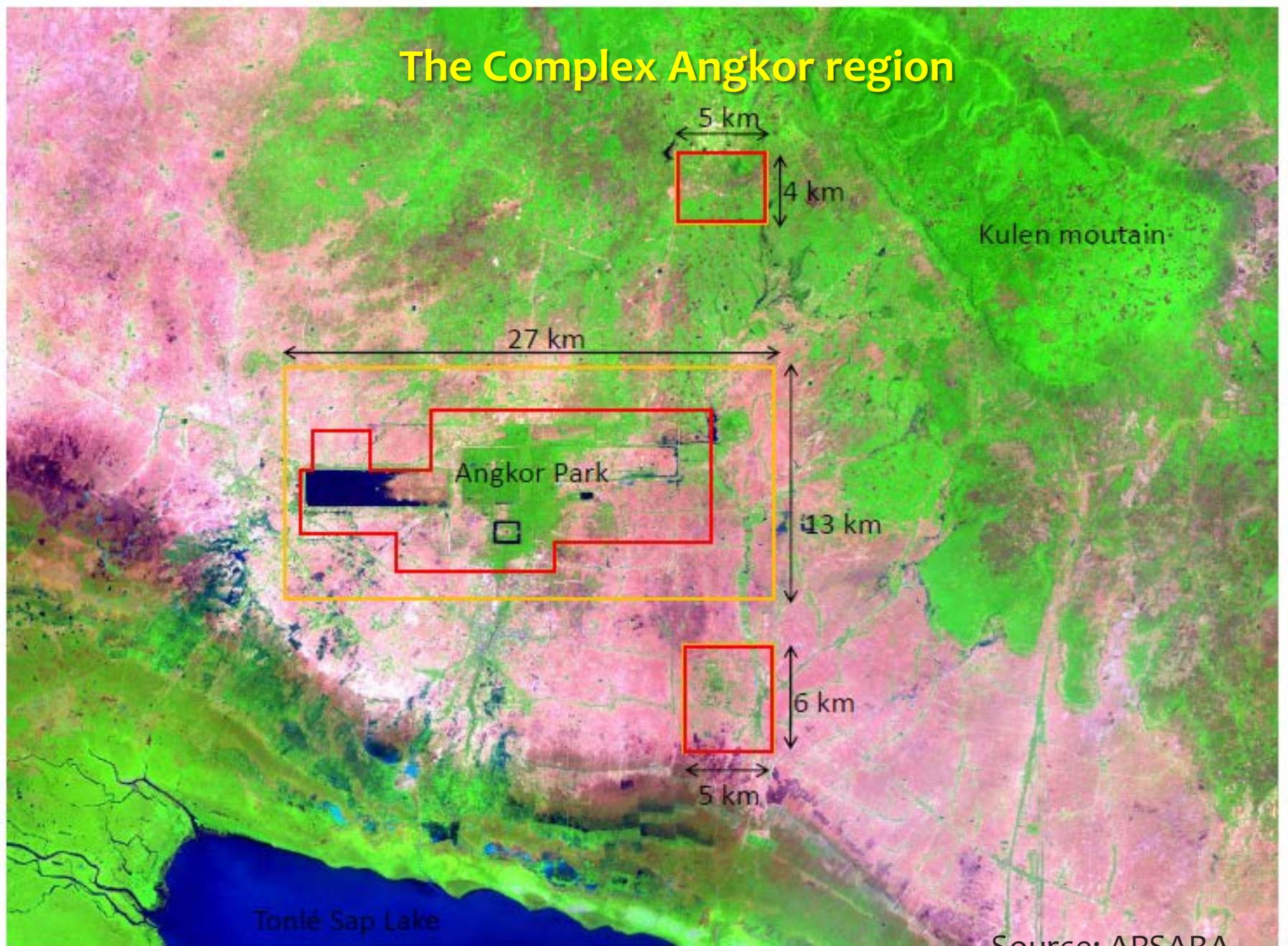
ANCIENT HYDRAULIC MANAGEMENT SYSTEM

Angkor Wat Region

By: Sok Saing Im

“ *The Ancients*” knew much more than given credit for regarding life, the universe, astronomy, advanced mathematics, magnetism, healing, unseen force etc, encoded knowledge is information that is conveyed in signs and symbols, we just failed to realize this. However, this knowledge is known to a small handful of people and its kept hidden from the publics.

The Complex Angkor region



- Existing temple complex and hydraulic infrastructures covered an area of about 1,000 km², consisting of: temples, ritual symbols, diversion canal, control weir, storage reservoir, inlets, outlets infrastructures
- Grouped in zones: collector zone, aggregator and holding zone, drainage and dispersal zone
- Water was used for:
 - Religious rituals, city water supply, irrigation system etc.
 - Infrastructures for diversion, storage, groundwater recharge for monument conservation and flood controls

Ancient settlement and water management infrastructure

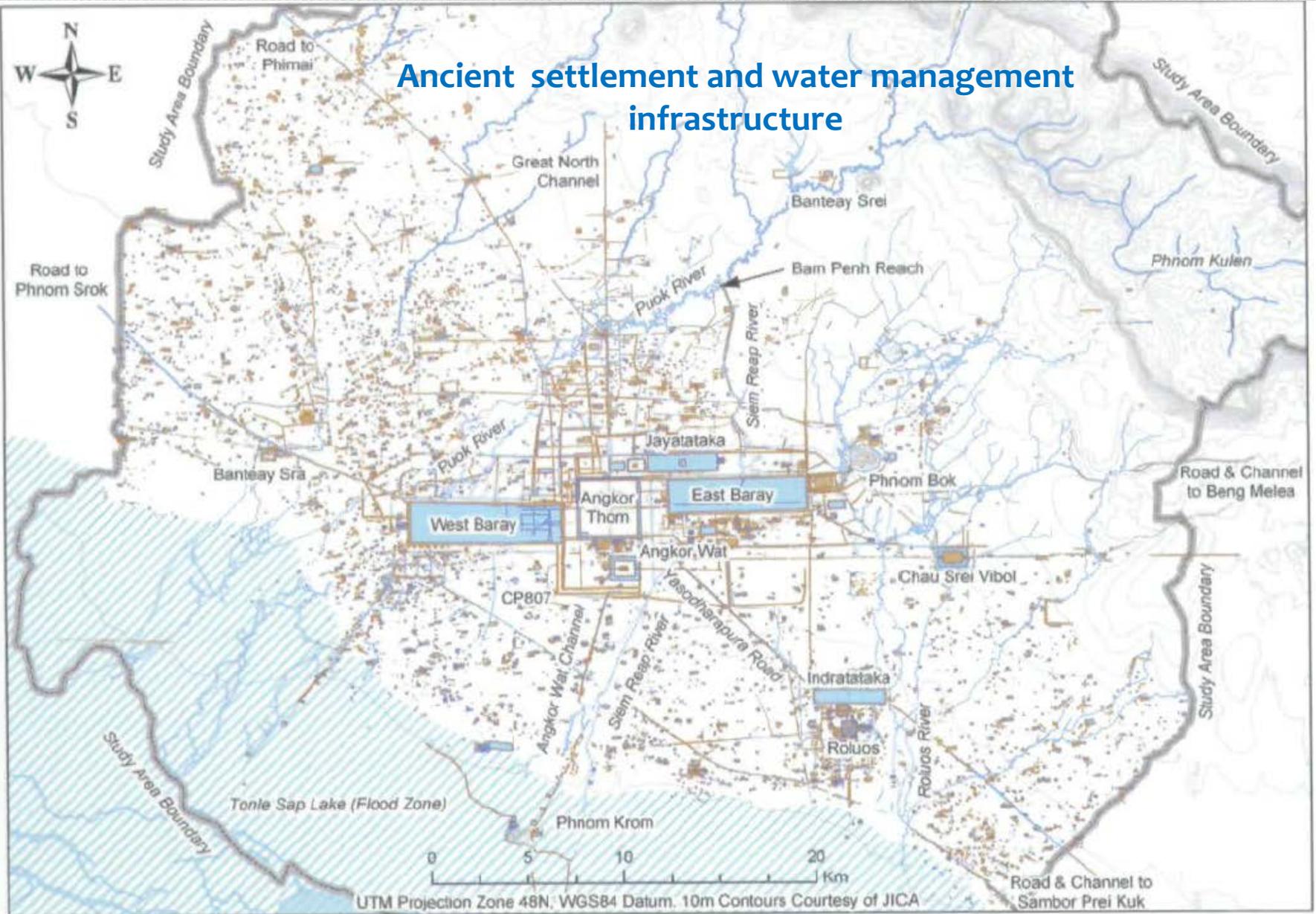


Figure 2. Greater Angkor archaeological map (Damian Evans and Christophe Pottier). Note channels to south and west of Roluos. Note channel-embankment connection from Beng Melea in the east to Chau Sri Vibol and westwards towards the centre of Angkor.

Spatial Management concept

M. Kумму / *Journal of Environmental Management* 90 (2009) 1413–1421

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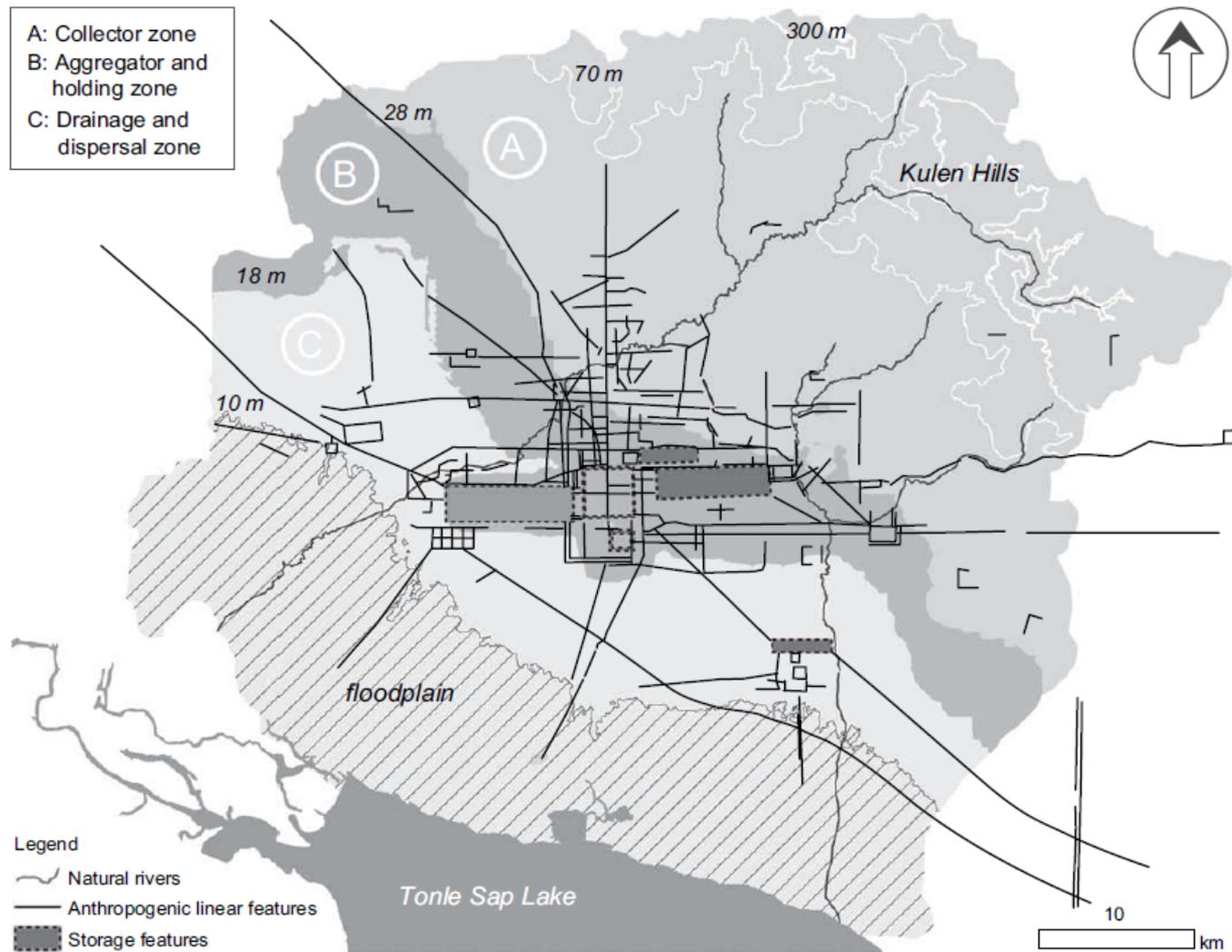


Fig. 4. Anthropogenic water management zones in Angkor based on elevation (in AMSL) and historical human use and management of water. Source of the GIS data: natural rivers, lake, DEM, and flood plain from the Mekong River Commission (2005); linear and storage features from Evans et al. (2007).

Inter-basin diversion of water

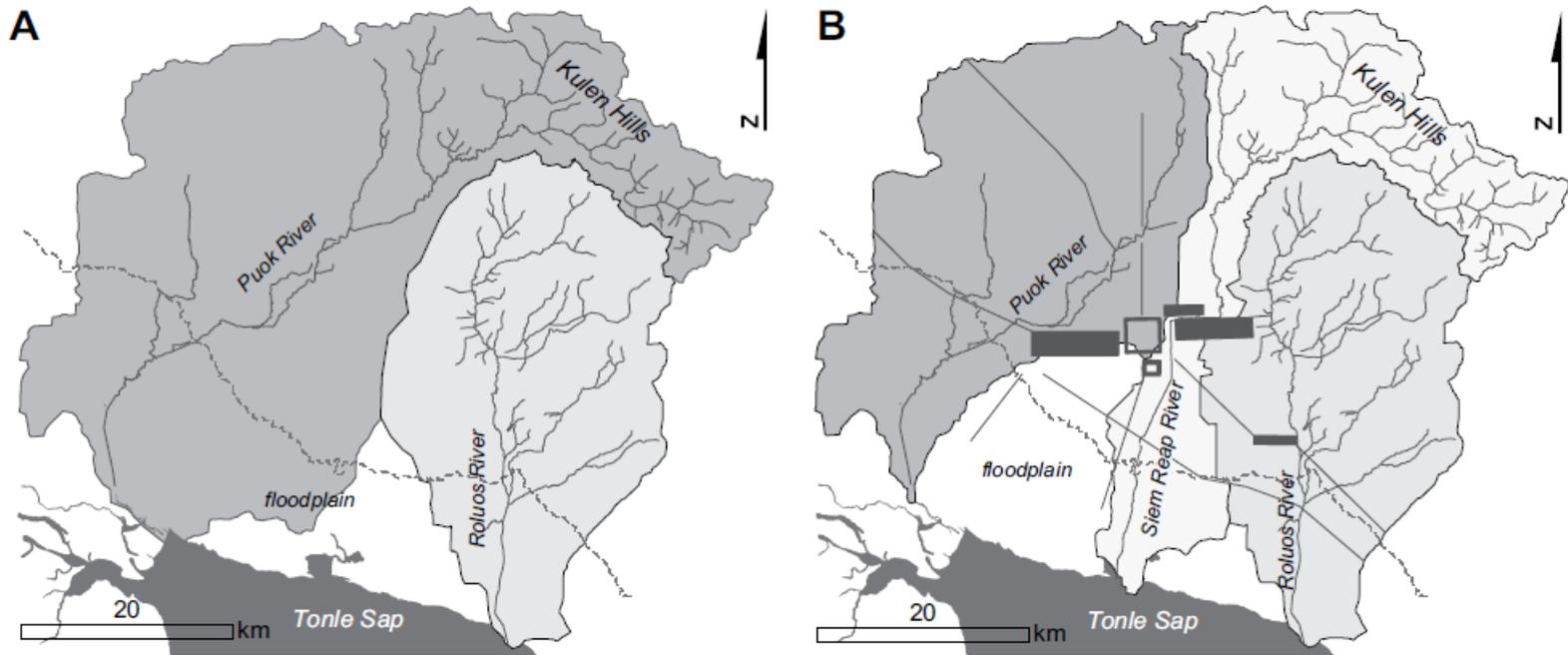
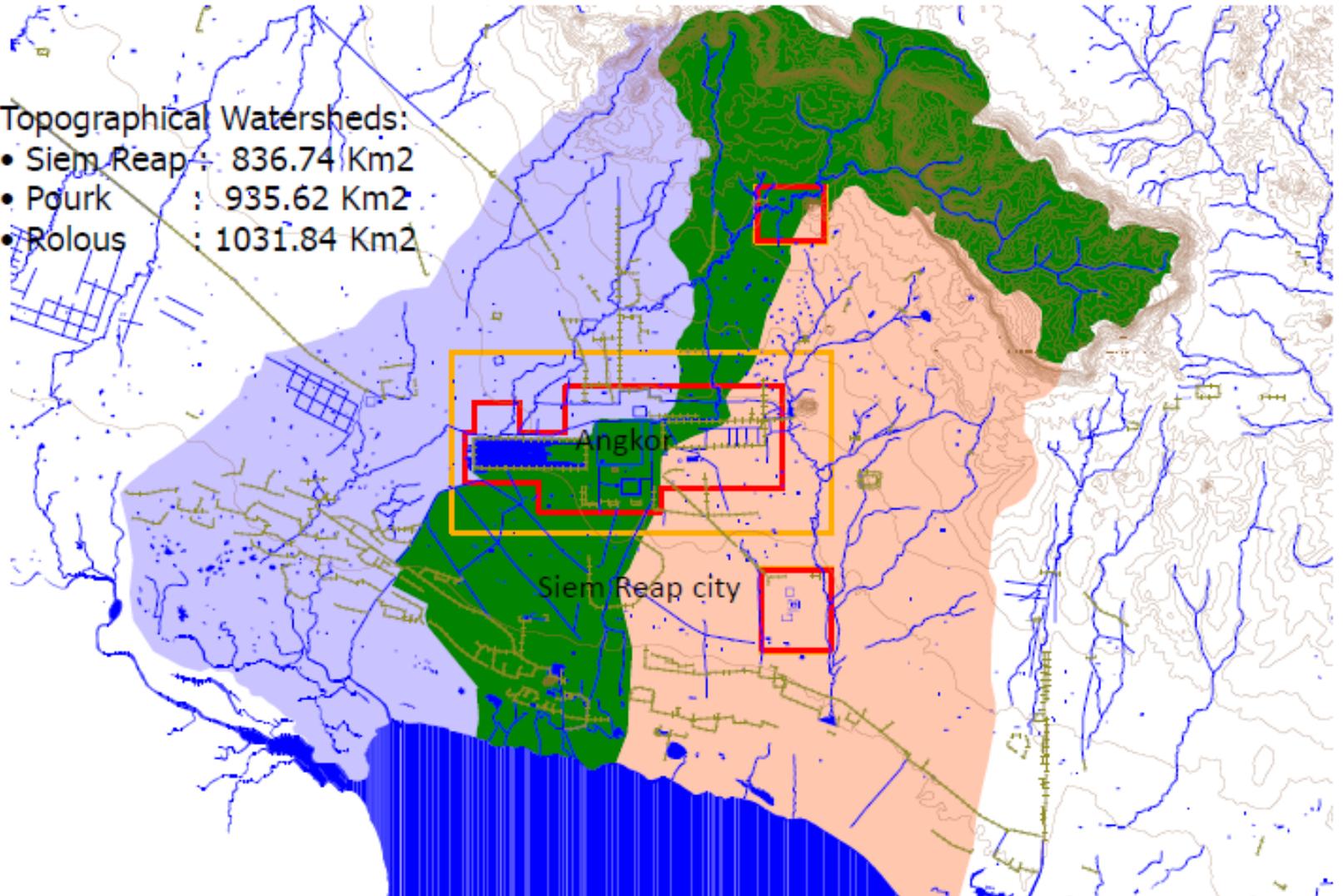


Fig. 5. Evolution of the watersheds: (A) natural watersheds; and (B) present watersheds. Source of the GIS data: natural rivers, lake, DEM, and floodplain from the Mekong River Commission (2005); linear and storage features from Evans et al. (2007).

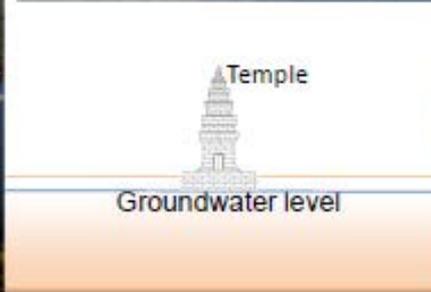
GIS: Watersheds

Topographical Watersheds:

- Siem Reap : 836.74 Km²
- Pourk : 935.62 Km²
- Rolous : 1031.84 Km²



Source: APSARA



FLOOD CONTROL FUNCTIONS

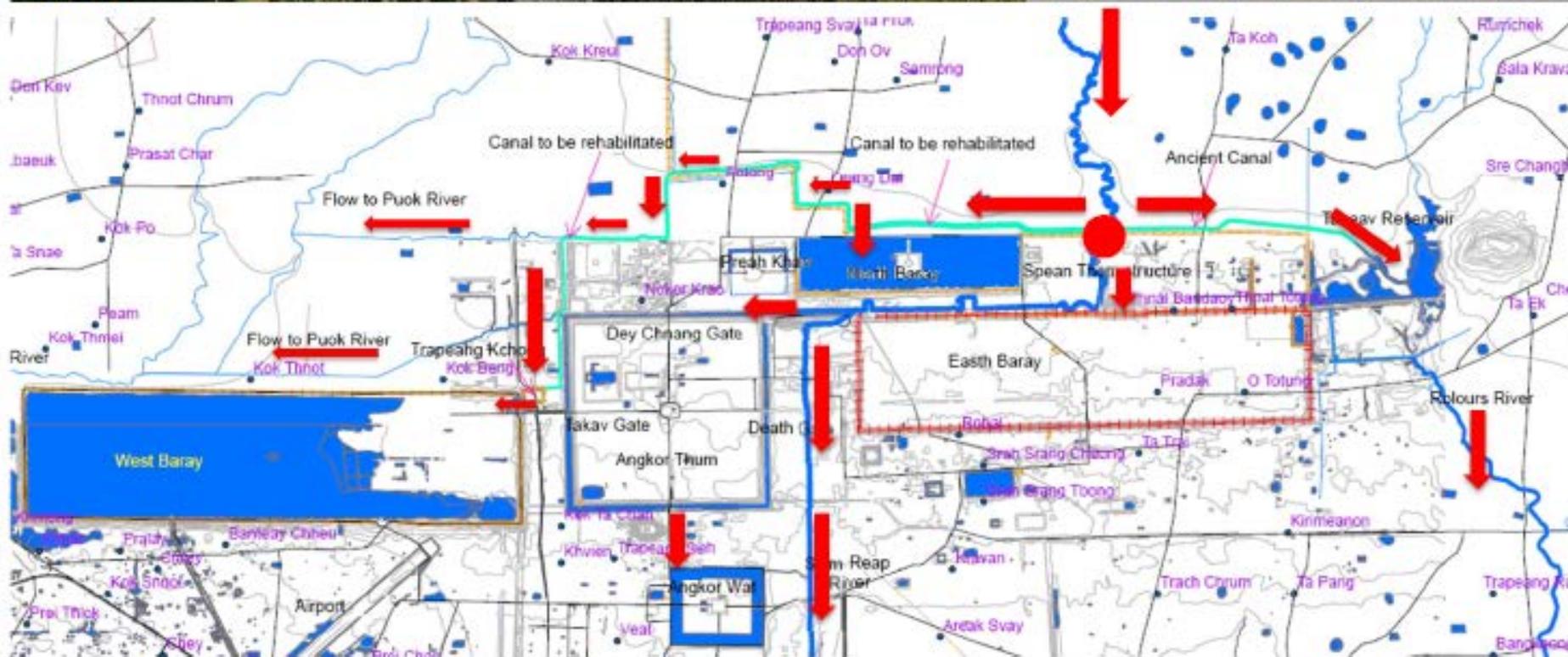
With ancient hydraulic system, we can protect the temples, airport and city center of Siem Reap from flood since 2012:

Without restoration of ancient hydraulic system:

2009,
2010,
2011.

Flood in 2012:
September 3-6th,
September 15-18th,
September 21-24th and
September 29th - October 2nd

Flood in 2013:
August 1-2nd,
September 20-28th,
October 2-7th



Water Management levels

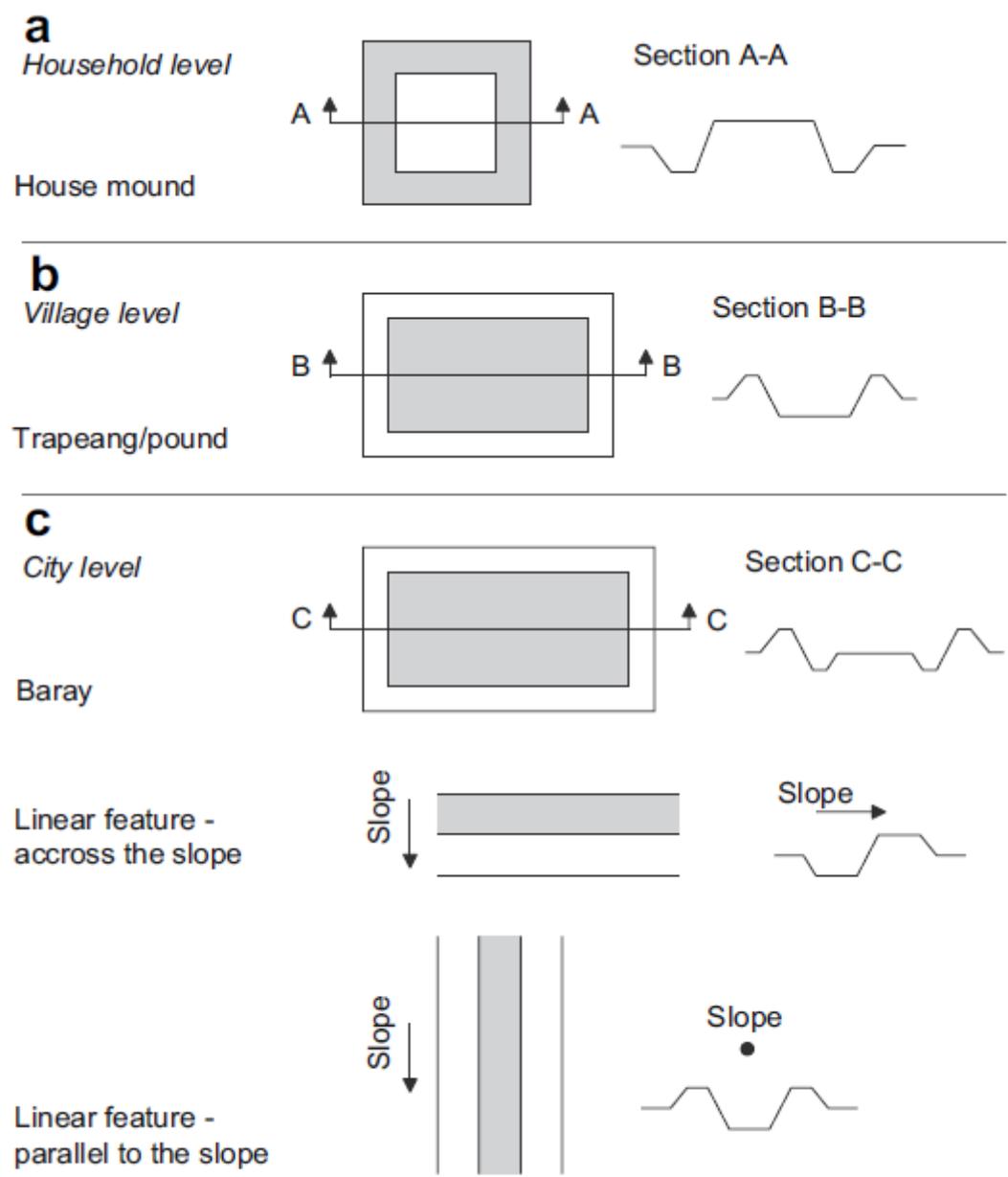


Fig. 3. Schematic illustration of the water management levels and typical associated structures. The different levels include: (a) household, (b) village, and (c) city levels (adapted from Pottier, 1999).



UNDERSTAND RITUAL SYMBOLS OF ANGKOR

The seven keys

And the Search for meaning of life



It is believed that the Siem Reap River flowing into Angkor is blessed by the sacred lingas over which it flows. [2]

- 1.The snake- the first key
- 2.The Bird - the second key
- 3.The Five towers- the third key
- 4.The Stepped Pyramid –the fourth key
- 5.The Seven steps-the fifth key
- 6.The World axis- the sixth key
- 7.The Churning of the sea of milk- the seventh key

THE SEVEN KEYS

1. First Key: The snake, has a twofold significance, it embodies the vital energy of life and it represents the dark forces of earth, the forces of chaos in life.
2. Second key: the bird (Garuda), In contrast to the denying forces of earth and darkness portrayed by the serpent, the bird represents the affirming principle of light, the wish to rise above the chaos of life to find inner unity and a meaning to life.
3. The third key: Five gates of perception/these doors are held to be sight, hearing, speech and touch, coordinated and interpreted by the mind.
4. The fourth key: The stepped pyramid, represent the mount Meru
5. The fifth keys: The seven steps, representation of the steps or stages through which the Seeker for Truth must pass on the inner journey from chaos to unity. The seven stages on the evolutionary journey through this world echo the seven worlds of the creation
6. The sixth key :The world of Angkor was at different times centered in whatever temple was chosen or built by the reigning God- King, “Because the center of the Universe was marked by Mount Meru, the thought it fitting to have a Meru in the center of this capital.”
7. The seventh key: The Search for Inner Unity is the hidden meaning of the message conveyed by the holy city of Angkor. “Churning of the Sea of Milk.” The seventh key links the previous six together as a living whole.



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