Bold State Effort Fails to Control Floods in Fourteenth-century Roussillon

Richard Hoffmann

Summary

In 1362, after a generation of unprecedented floods King-Count Peter IV ordered a study of diverting the beds of the Têt and Agly rivers, in order to develop a river management program which was to control floods and preserve good land in the county of Roussillon. His order and subsequent measures to manage the counties rivers reveal environmental awareness and responsibility in an emerging state. However, local resistance and rising costs ended these measures in the early fifteenth century, after which only local measures were taken to control floods.



Têt canal in today's Perpignan

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After a generation of unprecedented floods, fourteenth-century princes of Roussillon, a then autonomous county of the royal house of Aragon, advanced a remarkably far-seeing program of river basin management. Both the policy and its failure exemplify the growing environmental awareness, ambitions, and weaknesses of emergent European state structures.

Local watercourses of the eastern Pyrenees, notably the principal rivers Tech, Têt, and Agly, had been stable for millennia. Roman and twelfth-century buildings on the flood plain shared the same elevation. Then came disastrous floods in 1264, 1307, 1316, 1322, 1332, 1419, 1421, and more after 1530, to name only the best-documented events. People abandoned riverside settlements now buried under two to four meters of fourteenth-century alluvium. In retrospect, clearance of foothills for fuel, abandonment of arable, and the stormy onset of the cooler, wetter "Little Ice Age" climate together shaped a new and dangerous hydraulic regime.

Local communities responded first. The city of Perpignan taxed riparian landowners in 1327 and the 1330s to build protective dikes and weirs and plant trees to reinforce river banks. But some villages and landholders complained that the enlarged riverbed diminished their properties.

Confronted with failure of site-specific measures and appealing to "the common good," King-Count Peter IV enlarged the management program. In 1362 he ordered a study of diverting the beds of Têt and Agly to preserve good land near Perpignan. In 1378 royal officials gained agreement to realign three to four kilometers of the Têt from the town to its confluence with the Agly and to protect the new channel with tree plantings. In 1382-83 the prince extended the project to the lower Agly and the Tech. Entrusted to local commissioners from Perpignan, the proposal aroused opposition. The Bishop of Elne, other landowners, and village communities on the lower Tech claimed their losses would exceed anticipated gains. Resistance and rising costs doomed the effort. In 1399 Martin I lamented failure of his father's scheme and resulting continual losses of land and production. After the flood of 1419, Perpignan could again take only local measures.

This incident shows that state responses to environmental hazards, even the recognition of some human responsibility, do go back to the Middle Ages. So does local resistance, whether from myopic economic interests or opposition to an often narrow concentration of state thinking on a single purpose—in this case, rivers as conduits of excess water.

Arcadia Collection:
Water Histories

Further readings:

- Calvet, Marc, et al. "Les cours d'eau des Pyrénées orientales depuis 15 000 ans. État des connaissances et perspectives de recherche." In *Les fleuves ont une histoire. Paléo environnement des rivières et des lacs français depuis 15 000 ans*, edited by Jean Paul Bravard, and Michel Magny, 279 294. Paris: Errance, 2002.
- Caucanas, S. "Les tentatives de régularisation des cours d"eau en Roussillon au XIVe siècle." In *L'aiguat de 40; les inondations catastrophiques et les politiques de prévention en Méditerranée nord occidentale, Actes du colloque de Vernet les Bains" les inondations d'octobre 1940 en Catalogne; 50 ans passés", 18 20 octobre 1990, 383 388.* Centre de

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- Scott, James C. *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed.* New Haven: Yale University Press, 1998.
- Tréton, Rodrique. "Crues et inondations dans les Pyrénées méditerranéennes aux XIVe et XVe siècles: état des sources et perspectives recherché." In "Activités, échanges et peuplement entre antiquité et moyen âge en Pyrénées orientales et Aude," edited by Aymat Catafau, 212–224. Special issue, *Domitia: revue du Centre de Recherches Historiques sur les Sociétés Méditerranéennes* 8–9 (March 2007).
- Zadora Rio, Elisabeth. "Aménagements hydrauliques et inférences socio politiques: Études de cas au moyen âge," In *Fleuves et marais, une histoire au croisement de la nature et de la culture. Sociétés préindustrielles et milieux fluviaux, lacustres et palustres: pratiques sociales et hydrosystèmes,* edited by Joëlle Burnouf and Phillipe Leveau, 387 393. Paris: CTHS, 2004.

Related links:

- For an eighteenth-century physical map of the region, rivers, and towns here mentioned, see the Cassini maps http://cassini.ehess.fr/cassini/fr/html/1_navigation.php

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Now semi-retired as Professor Emeritus, Richard Hoffmann realized in the 1980s that his research on medieval land use and rural society pertained to the then-new field of environmental history. Since then he has explored various aspects of resource use, human impacts, and natural forces in European terrestrial and aquatic ecosystems during the millennium before the turn to fossil fuels. His one-volume environmental history of medieval Europe will soon appear from Cambridge University

Press.
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