Summer School River Lives and Living Rivers:
Towards a transdisciplinary conceptualization

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Programme

The Summer School lasted in total nine days and was held in different locations: on campus but also along the shores of the Rhine River and other nearby streams. There were in total 18 participants, of which 4 PhDs of the Riverhood project and 7 PhDs of the River Commons project. Of the remaining 7 PhDs, 3 were based at WUR and 4 at other universities.

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Summer school River Lives and Living Rivers:
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World's rivers are fundamental to social and natural well-being but profoundly affected by mega-damming and pollution. In response to top-down and technocratic approaches, in many places riverine communities practice forms of 'river co-governance', integrating ecological, cultural, political, economic and technological dimensions. In addition, new water justice movements (NWJMs) have emerged worldwide to creatively transform local ideas for 'enlivening rivers' into global action and vice versa. The Summer School aimed to provide PhD students who conduct research on these 'river commons' and NWJMs with transdisciplinary concepts and approaches for studying their emerging ideas, concepts, proposals and strategies. The different sessions thereby focused on conceptualizing river systems in all senses, and capacity-building for (understanding and supporting) river knowledge co-creation and democratisation from the bottom up.

The learning outcomes were the following:

      • Resume, deepen and reflect on key debates concerning philosophies of human conceptualization of nature, and society-nature-governance interactions;
      • Describe the four river dimensions and understand the key issues, concepts and debates of each dimension;
      • Identify and illustrate the relevance of each dimension for their own research;
      • Relate the four river dimensions to each other as well as to broader, historic philosophical society-nature debates.

Setting the scene: The four ontologies
Prof. Rutgerd Boelens and Dr. Lena Hommes

The first day of the summer school had two main objectives:

(1) getting to know each other and creating a good group atmosphere;

(2) introducing, discussing and applying the four ontologies deployed by Riverhood and River Commons.

The day started with a general welcome, a game of 'diversity bingo' to get to know each other and the group's diversity, and a small dynamic to discuss expectations, doubts and wishes of the participants (see pictures below). These would later also be used for reflection at the end of the summer school, to evaluate if expectations and wishes were met (or not).

After that, Rutgerd Boelens gave an introductory lecture on the four ontologies that provide the framework for the Riverhood and River Commons project as well as the summer school. Professor Boelens started with an overview of historic mainstream approaches to river governance that were shaped by wishes to dominate, dam and exploit rivers, and the problems this has brought about in terms of e.g. environmental and social justice, contamination and biodiversity loss. Furthermore, the meanings of 'epistemologies' and 'ontologies' were extensively discussed. The remaining part of the lecture was dedicated to discussing river-as-ecososiety (ontology 1), river-as-territory (ontology 2), river-as-subject (ontology 3), and river-as-movement (ontology 4).

Ontological Walk

In order to ground these ontologies in the field and in practice and make them more tactile for everybody, the rest of the day was dedicated to an 'ontology walk': participants formed groups of 4 or 5 and went into the Blaauwe Kamer nature area, looking for one of the four ontologies and collecting 'data' on it (objects, interviews, photos, sounds, impressions, maps, etc.). They presented their findings in the plenary afterwards, further discussing together the conceptual understanding and open questions and complexities of the respective ontology. This exercise showed how the different ontologies each shed light on a different aspect of the same place (here, today: the Blaauwe Kamer), while at the same time also being intrinsically connected. Moreover, participants discussed extensively how to move beyond a merely conceptual understanding of the ontologies towards a tangible operationalization and application in their respective research projects.

Thinking Nature: Ontology and politics

Dr. Mihnea Tanasescu

The first half of the workshop surveyed some important conceptions of "nature". It looked closely into the dominant descriptions in Western philosophy, focusing especially on the concept of the "bifurcation of nature", from Alfred North Whitehead. Via this idea, it discussed the evolution of the idea of nature from Descartes up to the contemporary notion of the Anthropocene, through examples such as cartography, geoengineering, and technocratic systems management. Finally, it surveyed some descriptions of nature, taken from critical anthropology, that do not rely on bifurcation but are arguably relational, such as Amazonian, Andean, and Māori philosophical traditions.

The second half of the day focused on the political prescriptions that are embedded in different descriptions of nature. It talked in detail about the politics of the Anthropocene, the Capitalocene, and the Plantationocene, drawing on examples developed in the morning. The group spent some time also thinking about the practical implications of different prescriptions for field work. After surveying the politics of bifurcation, relational politics was explored and related to the four ontologies structuring the two projects. The idea of the Ecocene was developed as a political alternative to the dominant politics of nature, one that can incorporate ontological plurality. Finally, the idea of ecology was presented as an inherently relational practice with important consequences for how we think and do politics.

River-as-ecosociety: Nature meets society

Hydrological modelling
Dr. Lieke Melsen

This lecture addressed hydrological modelling and issues related to the possibility (or not) of their neutrality. Infrastructural projects and management decisions are often underpinned with the use of quantitative computer models. These models consist of equations that describe the processes that are deemed relevant for the research question. Often, a "model train" is used, which means that several models are coupled to achieve the desired result, think for instance of a climate model coupled to a hydrological model, which is again coupled to a hydraulic model to project river flow in the future. Models are by definition simplified representations of reality, and therefore prone to uncertainty. Furthermore, many decisions have to be made when constructing and using a model, and these decisions can be value-informed and biased. As such, models can favour certain world views at the expense of others. An example is the land-use classification maps that underla many hydrological models. Land-use classification can depend on gender in certain cultures, where women are for instance responsible for agricultural fields while men are responsible for livestock: they would classify land differently. But also decisions that are not necessarily value-informed or that are considered 'neutral', for instance choosing between two equations to describe a process, can lead to a result that might favor one over the other. Models are therefore not neutral tools, and should always be evaluated in their societal context.

Connectivity in rivers
Dr. Edwin Peters

This lecture focused on connectivity in rivers, using the River Continuum Concept. From source to mouth, rivers show gradual changes in environmental conditions along the course of the river as is stated in the River Continuum Concept. For example, rivers start as small streams and gradually increase in size. Coarse bottom material near the source of the river is usually coarser than sediment in the downstream part of the river. Also, the energy for the foodweb in rivers starts with material from outside the river and closer to the mouth is more and more replaced by material produced in the river. Many of these changes are in a way predictable and the biology (plant and animal communities) are responding to these changes. Therefore, also in the biology, a gradual change will take place over the course of the river. Human activities like constructing large dams may interrupt these gradual changes, which is described in the serial discontinuity concept. The impact of a specific activity on the functioning of the river system depends on the location where the activity took place (up-, middle or downstream). Besides this longitudinal connectivity, there is also a transversal connectivity. Ecosystems close to the river are affected more by the river than systems that are further away from the river. During the lecture, it was discussed whether and how such connectivity and patterns can be also observed in society.

River-as-territory I

Territories
Dr. Jeroen Vos

The first part of the lecture on river-as-territory focused on the definition of territory. A territory is basically defined as "a geographical area with a claim (or exercise) of authority". In my garden I have a cat, two types of ants, and a black bird all claiming their territory. The territorial claim of these animals normally applies only to their own species: the cat and the ants do not mind each other's territorial claims (although the cat will not sit on the earth above the ants' nest). The black bird will benefit from my cat getting too old to catch birds, but still being strong enough to defend his territory against other cats that could catch the blackbird. The blackbird will not mind about the ants, until they massively get wings and provide a snack. This example shows that different territories exist in the same geographical area. It also illustrates that the authoritative claims with the territories are only partial: the claims apply only to certain others, and only in certain spheres (underground, land surface, air), and only related to certain aspects: e.g. the safety of the ants' nest.

In the political, legal, human geography and International Relations science fields 'territory' refers to the jurisdictional authority of a political entity (often the nation state). Besides that, much literature exists about territorial claims of indigenous people. In general, we can assert that many different types of territories exist, and territories can have effects while the affected do not notice the territory (the black bird in the territory of the cat). The French Marxist philosopher Henri Lefebvre was very influence with his idea of "production of space" (1974). He asserted that each society (hence each mode of production) produces it own space. Thus, the hunter-gatherers produced a very different space as compared to the medieval peasantry, and the capitalist way of production produces yet a completely other (large-scale, globalized) space.

Five important "political" conceptualizations around territory are:
1. Territorialization, Deterritorialization and Reterritorialization
2. Multi-layeredness vs multiplicity of territories
3. Territories are about controlling populations
4. Politics of scale
5. Creation of time/space

These conceptualizations all help to see territory as a political construct with real effects to people and ecosystems. Actors employ the social (de/re) construction of territories and scale to strategically further their own interests. At the same time the above concepts are useful frames to study the power effects of territories.

River-as-territory II

Making territory
Dr. Lena Hommes

The second part of the lecture on river-as-territory was focused on how territory actually comes to be or, in other words, through what practices territory is 'bordered' and 'ordered'. First of all, the making of territories was introduced as the process of materially, socially, politically, and discursively fixing patterns of relations leads. This is an ongoing and contested process, in which different actors with their respective interests and diverse practices take part, leading to often unforeseen outcomes and dynamics. Some of the territorialization practices that were further discussed included the drawing of (material, institutional, social) boundaries, the creation of subjects, the diffusion of myth and narratives as well as representations (such as maps) that create the idea of a quantifiable and calculable geographic space. Furthermore, a central tool to make territory according to specific ideas or imaginaries, is infrastructure and water technology such as dams, irrigation canals, or water supply systems. The lecture further zoomed in on some of the aspects that are crucial to understand infrastructure and its role in the making of territories (through certain socio-material objects, socio-natural subjects and institutional relations).

Hydrosocial Territories
Prof. Rutgerd Boelens

The third part of the lecture on river-as-territory zoomed in on the notion of 'hydrosocial territories' and themes of governmentality, contestation and 'counter conducts'. Furthering on the previous lecture, we discussed how water and hydraulic technologies and institutions entwine ecology and society. Water flows through landscapes, technologies and cities, connecting places, spaces and people to each other. The natural and human induced variations in its flow create, transform or destroy social linkages, lived spaces and boundaries; thereby they produce new social-, land- and water configurations. These in turn transform political hierarchies, social conflicts, and forms of collaboration. Starting our reflections, we discussed the basic definition and implications of hydrosocial territories in the context of rivers, river governance, and river conflicts and collaboration. Different societal players imagine and build hydro-social territories in different ways, with different functions, values, meanings. For that reason riverine hydrosocial territories express contested control over the configuration of rivers as socio-ecological systems. Through diverse governmentality endeavours, dominant stakeholders conscious or unconsciously seek prevalence and control. We discussed how they often present their river territorial designs as 'nature' or 'nature-based', and portray their river schemes and choices as 'natural', objective, technical, and politically neutral. In practice however these river plans and developments organize benefits and burdens. Through examples we debated the issue of how river models, governance plans and eco-technological designs are implicitly 'moralized': they bear (often invisibly) their designers' class-, gender- and cultural norms. We also discussed the responses and alternative proposals by collective citizen groups and co-governance initiatives who look for commoning of riverine ordering and management. They seek to defend and 're-moralize' riverine territories and hydraulics, thereby reshaping towards their own riverine hydrosocial territories.

River Labs: Principles and practices

Learning processes in river labs
Dr. Daniele Tubino

This talk provided a definition and conceptual approach for river labs. River labs constitute a central idea in the Riverhood and River Commons projects and were defined as co-learning spaces involving researchers, local communities, the public and private sectors, government agencies, and activists to produce alternative river knowledge, strategies and actions that might lead to a resolution or improvement of the river situation at stake. Following this definition, it was elaborated on how 'co-learning' or 'learning' can be understood in the context of river labs. Such comprehension is crucial to guide the selection of learning practices that can be deployed among multiple participants interacting in river labs' arenas. To this end, two theoretical frameworks have been brought to bear: embodied cognition and critical pedagogy. Learning from an embodied cognition approach accounts for the inseparability of mind and body and aligns with non-dichotomist narratives of reality that search for ways of being and perceiving the world that are relational. Yet, critical pedagogy strives to uncover asymmetrical power relations and criticize colonial systems of domination and subjection of local identities and forms of knowledge. Such approaches highlight the importance of working with issues emerging from the local as a way to enact a place-based learning grounded on dialogic interactions and embodied practices that might challenge dominant views, engage with subjugated river knowledge, and support the co-creation of alternative river solutions. From a territory-based learning perspective, it was also highlighted how power issues, as central in the configuration of riverine territories, must be recognized and addressed in the interactions and activities carried out by river labs, thereby making it essential to understand power imbalances, antagonisms, and contradictions of multi-actor processes.

On positionality: A (self)reflection towards river labs
Dr. Juan Pablo Hidalgo Bastidas

Every form of transdisciplinary scientific research entails interaction among researchers and research-participants, yet in river(ine) research this is especially critical, given the socioeconomic, cultural, political and ecological complexity of river contexts. A key aspect is how the positionality of the researcher remains crucial to achieve a horizontal, ethical, non-extractive and sensitive research. We departed from the taking-home-point: the researcher is a political actor in a river lab setting. This premise guided our (self)reflection.

Given the complexity of riverine contexts, rationality—as a stand-alone epistemological way of understanding reality—presents serious limitations. The feeling-thinking concept in research then emerges as a relevant way to approach research in riverine contexts. It is based on the notion of 'experience' as the basis for 'knowing' the world; knowing is experienced in a dynamic sense. This concept and way of approaching research challenges the binarism that separates thinking (the rational) from feeling (connected to the direct experience), as a way to co-create knowledge and to acknowledge different forms of knowing. It calls for transforming the ways the researcher makes sense of reality and her/his relationship with research-participants: one where the conceptual and theoretical frameworks are not the only possible ways to carry out (action-) research, and nature and society are deeply inter-woven and -dependent. Feeling-thinking implies intervention in the reality being investigated, the researcher becomes a broker connecting diverse worlds (e.g., local realities and academia), she/he becomes an integral part of the research itself (subject), and her/his political role is made explicit. It is crucial then to be aware on how power relations (gender, race, class) might affect or inform the whole action-research process. Researchers can bring other people into contact with research participants and/or take the claims of research participants to others (outside); many possibilities of knowledge exchange take place. All these translations and links imply changes that affect the context and relations with research participants and others. This is how the researcher is not a neutral subject in the research, but a political subject. Before going to the field, a self-reflective exercise is, therefore, crucial to understand our own subjectivities and positionality in relation to the cases we are interacting with.

River labs: from the confrontational approach towards a collaborative effort
Dr. Bibiana Duarte Abadía

Multi-actor interactions are not a harmonious process in which all the parties easily agree on diverse opinions, ideas, positions, or interests. On the contrary, co-creation through gathering different actors often deploys confrontation of knowledge, values, discourses, and norms. Therefore, acknowledging confrontation is crucial to examine how collaborative initiatives adapt to multiple realities and diverse water/environmental justice struggles. The lecture addressed 'confrontation' as the encounter of different interests and worldviews that struggle for the use, access, and control over shared resources such as water. The understanding of confrontational dynamics within river labs implies characterizing the involved stakeholders, describing their lifeworld, identifying their social networks, and analyzing their roles at different scales. Therefore, the Actor Oriented Approach was highlighted as a meaningful and supportive methodology to the constitution and activities promoted by river labs. On the other hand, the success of social mobilizations and collaborative alliances also depends on the capacity to understand the dynamics of power. Understanding such dynamics may help researchers to better understand how to set up or engage in a river lab, in terms of 1) connecting with certain actors, and engaging with or creating spaces for participation; 2) following the actors and identifying their social arenas at different scales (global, national, and local). Finally, it was stressed that setting up river lab activities requires examining the visibility of power that shape the inclusiveness of participation through decision making (visible power), controlling who gets the decision-making table and what gets on the agenda (hidden power), and shaping the meaning of what is acceptable within human mindset, cultural beliefs, and social values (invisible power).

Workshop "River Labs"
Peter Kodde - Stroomversnellers

Play is the best method of learning, so that is what we did during this workshop. Using the Theatre of the Oppressed method developed by the Brazilian activist and theatre maker Augusto Boal, we acted out three river scenarios: a climate cafe in Meers, a small village, in southern Netherlands, on the banks of the Maas; a meeting between local communities on the banks of the Cacus river, in Colombia; and an attempt to bring these two groups together in a final scene, that would take place in Wageningen.

Those plays provided important lessons on how to approach diverse river cases. For instance, about the complex role a researcher has in contexts like that. They also gave insights to the group about all kinds of expected and unexpected power dynamics playing out in public meetings and on how facilitation can influence such dynamics. Of course, reality can be different from a play, but playing theatre allowed us to feel the dynamics of emotionally charged encounters and reflect on alternative solutions to conflicts by freezing, intervening and changing the scene, the roles and the players.

We also learned about storytelling based on Marshall Ganz's theory and how to use a 'story of self' as a researcher and we addressed strategies adopted by social movements, connecting to the engagement ladder approach. Finally, we applied the 'one-on-one conversation' as a strategic and structured way to engage people in a movement. This method is composed by some key steps: how to open a conversation, state your purpose, explore and exchange, and end with a question that is so precise and clear that it can only be answered with a yes or a no.

River-as-ecosociety: Fish migration

Balancing river regulation and ecological functioning
Prof. Dr. Tom Buijse

This lecture on rivers as socio-ecological systems started by introducing several influential concepts in river ecology: river continuum concept, flood pulse concept, serial discontinuity concept and the river ecosystem synthesis. These concepts are of great use to become familiar with the ecological functioning of rivers and floodplains and to understand what may be lost when they are modified e.g. for flood protection, water storage, energy production or navigation. This is illustrated by a comparison between the highly modified Rhine and Danube where much biodiversity has been lost and the near-natural Danube Delta where supplying ecosystem services and preserving nature are better in balance. To link biota to the abiotic conditions in river systems species are grouped in ecological traits and guilds based on their environmental requirements. Such grouping helps to relate to changes in biodiversity to river degradation and restoration. Finally, the importance of interdisciplinary research and cooperation for river systems is stressed due to their spatio-temporal complexity and dynamic interactions.

Beyond traditional resource use management
Ir. Paul v Zwieten

After discussing fisheries biological concepts grounded in single species population dynamics that form the basis of Conventional Fisheries Management (CFM) approaches, we discussed why these do not seem to work in tropical small-scale multi-gear and multispecies fisheries. CFM is strongly driven by the concept of growth overfishing, leading to management regulations that are focused on single species and a.o. forbid the catch of juveniles. These regulations have strong consequences for the harvest of small-species that are caught together with these juveniles and lead to absurd situations, as in Lake Bangweulu, Zambia, where 95% of the catch is deemed "illegal" leading to continuous management conflicts. Single species management focusing on large specimen only leads to structural changes in ecosystems. Balanced harvesting, where all species and sizes are caught in propor-tion to their production, does not lead to such structural changes, but requires a range of fishing methods targeting both small, highly productive, and large, low productive, sizes of fish. We show that under ideal free distribution conditions, where fishermen are competitively equal, maximise their own catch, have no species or size preferences and with limited technology balanced harvesting will emerge from individual fishing decisions, very much like many African freshwater fisheries that are close to such conditions.

River-as-subject: Cultural geographies and earthly attachments
Prof. Edward Huijbens

The presentation and talk dealt with critical earthly attachments in the Anthropocene, trying to make sense of the river as subject. Ideas were drawn from the recent book Developing Earthly Attachments in the Anthropocene, translated into the ways in which as river can speak through the means by which we make sense of it. Starting off with the wider context of the current climate emergency, the lecture moved to explicate what was meant by different framings of the planetary and the ways in which the Earth can be made sense of through some key tenants of political geology. Evoking notions of speculation and the ways in which materiality can be conceived with agency premised on a relational ontology, the talk focused the planetary climate emergencies on particular 'critical zones' wherein the planetary can be made sense of. Examples of geothermal infrastructures and rocks unravelling Modernising notions of progress in these critical zones were then used to show how a reorientation of thinking about materiality, from nouns to verbs, could work. '-inging the thing' became a leitmotif of the talk, when examples of the ways in which a river is made sense of were explored and concepts introduced to make sense of our being one with the spaces and places we call home. The talk ended with some speculative cartography illustrations and ways the illusive subjectivity of the river could possibly be apprehended.

River-as-subject: Critical perspectives on Rights of Nature/ Rights of Rivers
Dr. Prof. Barbara Hoogenboom and Carolina Valladares

In the lecture "Rivers as subject: Critical Perspectives" we discussed the experiences so far around the world where rights of nature (RoN) have been granted, with a special focus on 'rights to rivers'. Departing from the case of Ecuador, the first country to recognize RoN in the Constitution, we analyzed the pitfalls and potentials of such a recognition as a tool for environmental justice. RoN in Ecuador is the product of long-standing social mobilization and 'assemblages' of various key actors at local national and international scales that converged at the right time. It resulted in the recognition of RoN with culture-specific elements—e.g., the figure of Pachamama— that are not exchangeable in other contexts but that gave way to new assemblages for other, also culture-specific, recognitions of RoN. The key argument is that RoN is a battleground. Social movements and other actors advocate for the making of nature as a subject, which necessarily entails power struggles. It is a product of networks, assemblages, and governance projects. That is why RoN has potential if mobilized with a political ecology lens.

River-as-movement: Socio-environmental commons movements
Dr. Fabio de Castro

This seminar addressed River-as-movement through the commons research lens. In the first part, the commons research was introduced as an interdisciplinary perspective that emerged from the dialogue between different theoretical and methodological tradition, and how it has evolved from an institutionalist to more critical perspectives. The presentation is illustrated by some relevant authors and literature and supported by examples to apply the concepts and contrasting analytical approaches. Main debates between more positivist elaborations based on economic and apolitical institutional analysis and critical perspectives based on cultural and political contextualization are presented and illustrated by some examples. In the second part, the new commons perspective is introduced as an outcome of a transdisciplinary encounter of theory and practice, and connected to social movements theory. The shift from commons as an inherent element to commoning as a social construction, and the interpretation of material and immaterial commons are key aspects of this new perspective. Through the concept of commons movements, some critical theoretical debates are discussed such as the multi-dimensionality of the commons, the contradictions of commoning processes, and the commons-social movement nexus. Through a non-normative conceptualization of commoning process, the students are invited to reflect on the potential and limitations of the commons as an analytical tool to investigate their case studies.

River-as-movement: River-based co-learning and co-production across cultural and national boarders

Pof. Arjen Wals

In my contribution, I introduced sustainability as a learning challenge that requires continuous engagement in the form of questioning assumptions, eliciting and discussing values, unveiling and regenerating connections and relationships, becoming uncomfortable together by embarking on moral issues and ethical dilemmas, and disrupting systems, patterns and behaviours that normalize unsustainability. River-based co-learning and co-production refers to place-based transformative and transgressive learning that does all the above with the watershed as inevitable common ground. The notion of eco-pedagogy and emancipatory approaches was introduced to create space for agency and self-determination as opposed to instrumentally try to get people to think and act in a certain way which would imply a return to colonialism.

When considering sustainability as a learning challenge some key questions need to be asked: What is considered sustainable? How sure are we? How do we change from an unsustainable state to a more sustainable one? What does it require from whom? What is the 'nature' of the change challenge (simple, complex, wicked)? Can we suffice by optimization of what we have or is a transition towards something completely different required? How much space for interaction, co-creation and joint learning is available? What are appropriate approaches, methods, designs, tools to use, given the kind of challenge and conditions identified? We explored some of these questions while going on a walk around the Aurora Building on the Wageningen UR Campus in small groups where participants walked towards a nearby destination and on their way there had to look for and agree on something considered 'unsustainable' and on the way back for something 'sustainable'.

Some key suggestions for (re)generative forms of learning that were provided included: Look for boundary crossing opportunities by adopting a systems approach; utilize diversity and multiple perspectives – looking for synergy but also for contestation and conflict; move beyond increasing awareness and understanding to include co-creation, design and action; ask: what am I strengthening in society, what am I ignoring or weakening? What needs sustaining? What needs disrupting?; engage in ethics, inner-conflicts, and the tough value-laden questions; and, lastly, are to be disruptive, to go against what is expected or considered 'normal'.

Excursion to rewilded brook in the Binnenveldse Hooilanden, near Wageningen

Dr. Jeroen Vos

Biological dairy farm: De Hooilanden

At the biological dairy farm "De Hooilanden" (the "hay fields") of Floor de Kanter and Lodewijk Pool near Wageningen we learned about the problems with the strict government regulations and biological standards. Floor explained that besides the cows, they also generate income by providing a workplace for disabled people and catering service for on-farm meetings. They like their farm to be a social endeavour. They also rent out a piece of land to an ecological horticulturist.

They form part of two collectives: one to lease land as a collective and the other as part of the nature reserve "Binnenveldse Hooilanden". Floor explained about the mistrust between the farmers and ecologists in this last cooperation. The farmers benefit from the hay they can harvest from the nature reserve, the ecologists benefit because of the removal of nutrients. However, the farmers feel the ecologists have pushed too much for their own ideas.

Rewilded brook: "De Grift"

We visited the newly created nature reserve the "Binnenveldse Hooilanden" near Wageningen. The nature reserve of 286 ha is special as it is managed by a collective of citizens and seven farmers. It was created when the Province of Gelderland sold the land to the collective in 2018. The citizens' part (50 ha) was financed by crowd funding (400 citizens bought a piece of the reserve for 1000 euro each). The citizens form an association, and the members elect a board that does the daily management. The members take decisions and monitor the board's activities in twice-yearly general assembly meetings. The Province of Gelderland and EU paid for the removal of the (too fertile) top layer of the land, and the Waterschap paid for the re-creation of the Grift brook. In total 7 million euro was spent on the re-creation of this nature reserve.

The place is special because the groundwater that comes to the surface is very clean and has a lot of calcium. It still features small parts of the nearly extinct "blue Grassland" flora and fauna, very special for the Netherlands. Many centuries ago, the area used to be a marshy area with a lot of peat. The Grift canal (or Valleikanaal) of 40 km runs from the river Rhine towards Amersfoort in the north, it was constructed between 1473-1481 to drain the marsh to take out the peat. Dried peat was used as fuel in houses and brick factories. The canal also served to transport the dried peat. Now the Grift canal drains the agricultural lands and is heavily polluted with nitrogen and phosphate and remains of industrial waste. For that reason, the ecologists wanted to re-create the Grift brook alongside the canal (see map from 1655 with in the centre the meandering brook. The brook should only take ground and rainwater from the nature reserve, and not the agricultural lands, therefore a bypass of the brook over a drainage canal had to be constructed.

The new nature reserve has already seen the return of a lot of rare flora and fauna. It attracts a lot of meadow birds in spring (and bird watchers). The Grift canal is used for canoeing and sport fishing (especially at night). What is unique for the Netherlands is that the nature reserve is jointly managed by a citizens' group (mainly ecologists related to WUR) and farmers. In The Netherland these groups do not often cooperate as their interests do not coincide.

1655

Conceptually linking the four dimensions
Dr. Lena Hommes, Dr. Lieke Melsen, and Dr. Daniele Tubino

The red thread of the course was composed of four interwoven ontologies through which river social-ecological systems might be understood: river-as-society, river-as-territory, river-as-subject, and river-as-movement. The main objective of this final assignment was to articulate concepts, theories, and practical approaches related to these ontologies, that were offered throughout the various lectures of the Summer School.

As a first step, the PhD students shared and discussed with each other the notes that they individually prepared about their own insights and 'lessons' that they took away from the Summer School. As a second step, they reflected and discussed about the following questions:

> 1. How do the four ontologies (and the connected concepts, thoughts etc. discussed in the summer school and relevant for you) relate to each other? And how can you use them in your own research projects?

> In case you notice contradictions between the ontologies or other relevant ones, please feel free to discuss this as well!

> 2. How can the ontologies and concepts translate into research practice, specifically in the river labs?

> 3. What is your individual (or collective?) positionality in your research contexts and how do they influence your conceptual and practical research approach?

After the group discussion, the participants prepared creative presentations, of various formats, bringing out their interpretations of the topics elaborated and discussed during the course as well as possibilities of applying them theoretically and methodologically to their research.

Testimonials from praticipants

Carlota Silva Houart
PhD candidate - Riverhood, Wageningen University

The Riverhood and River Commons Summer School helped me understand the porosity between nature and society, science and politics, and theoretical knowledge and embodied practice in a way that I had not yet truly discovered. Reflecting on the continuities and contradictions between the different river ontologies that we explored – river-as-territory, river-as-subject, river-as-ecosociety, river-as-movement –, I was reminded of the importance of breaking down borders between research and activism; the human and the more-than-human; water worlds and land worlds… while keeping in mind the challenges of having a critical perspective. Yet, the Summer School taught me that a critical reflection on nature-society relations bares not only challenges, but also opportunities for the understanding and construction of shared worlds.

Chisala Lupele
PhD candidate - River Commnons, Wageningen University

Before I started my PhD, I was often told it is a lonely journey with little peer to peer learning or support. This was my expectation until I attended Summer School. The Summer School presented a community whom I rely on and reference their expertise together with the literature we were exposed to; both have become key in the development of my research proposal and have positively sharped the start of my PhD journey.

Thomas Rickart
PhD candidate, Federal University of Minas Gerais, Brazil

The course organizers had a challenge, to meet the diverse needs and desires of a diverse group. Their tributaries were a range of teaching strategies, teachers, and topics. We were indoors, outdoors, in plenary and groups, presenting, moving, acting and reflecting. It was both broad and focused, introductory and in depth, taking advantage of diversity in the teachers and group.

Importantly, freedom was offered where it could be: freedom to accept or question the central concepts, such as that of ontologies and Political Ecology, as much as freedom to debate and question the presentations the teachers brought with them. It was a space that felt safe to question each other and our ideas also.

We flowed on a meandering course with comfortable bounds, neither dammed nor drained, carried through each day, buoyant on a source of renewable energy, taking part in an immense and complex ecology of ideas and practices.
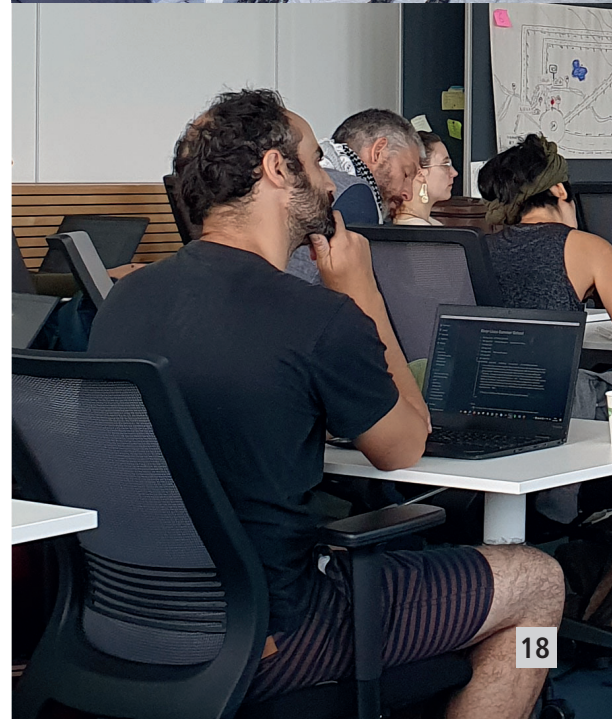
Reader Summer School

The list of the main articles that support the lectures that comprise the Summer School can be found below. Most of the sessions had one compulsory reading and further complementary readings.

Day 1 Introduction

Boelens, R. et al. (under review) Riverhood: Political ecologies of socio-nature communing and translocal struggles for water justice, submitted to Journal of Peasant Studies.

Day 2 Thinking nature

Obligatory reading: :

Descola, P. (2014) Modes of being and forms of predication. HAU Journal of Ethnographic Theory 4(1): 271-280.

Complementary reading:

Drenthen, M. (2013) New Nature Narratives: Landscape Hermeneutics and Environmental Ethics. In: F. Clingerman, M. Drenthen, B. Treanor, & D. Utsler (Eds.), Interpreting Nature: The emerging field of environmental hermeneutics. Fordham University Press.

Day 3 River-as-Ecosociety I

Obligatory reading:

Cummins, K.W., Cushing, C.E. and Minshal, G.W. (1995) Introduction: An Overview of Stream Ecosystems, In: Cushing, C.E. et al (eds.) Ecosystems of the World.

Day 3/4 River-as-territory

Brighenti, A. (2010) On Territorology: Towards a General Science of Territory. Theory Culture Society 2010 27: 52

Goetz and Middleton (2020) Ontological politics of hydrosocial territories in the Salween River basin, Myanmar/Burma. Political Geography, 78, 102115.

Rutgerd Boelens, Jaime Hoogesteger, Erik Swyngedouw, Jeroen Vos & Philippus Wester (2016) Hydrosocial territories: a political ecology perspective, Water International, 41:1, 1-14.

Day 4/5 River Labs

Obligatory reading:

Souza, Daniele T.P., Eugenia A. Kuhn, Arjen E.J. Wals, and Pedro R. Jacobi (2020) Learning in, with, and through the Territory: Territory-Based Learning as a Catalyst for Urban Sustainability, Sustainability 12, no. 7: 3000. https://doi.org/10.3390/su12073000

Complementary readings:

Ana Prieto López, Bibiana Duarte-Abadía & Rutgerd Boelens (2021) Territory in conflict: land dispossession, water grabbing and mobilization for environmental justice in southern Spain, International Journal of Water Resources Development, 37:6, 996-1020, DOI: 10.1080/07900627.2020.1854693

Duarte Abadía, Bibiana, Rutgerd Boelens, and Lucas du Pré (2019) Mobilizing Water Actors and Bodies of Knowledge. The Multi-Scalar Movement against the Río Grande Dam in Málaga, Spain, Water 11, no. 3: 410. https://doi.org/10.3390/w11030410

Gaventa, J. (2006) Finding the Spaces for Change: A Power Analysis', in Power, Exploring Power for Change, IDS Bulletin, 37(6), pp. 23-33. Brighton: IDS. https://doi.org/10.1111/j.1759-5436.2006.tb00320.x

Souza, D. T., A. E. Wals, and P. R. Jacobi (2019) 'Learning-based Transformations Towards Sustainability: A Relational Approach Based on Humberto Maturana and Paulo Freire.' Environmental Education Research, 1–15. doi:10.1080/13504622.2019.1641183.

Day 6 River-as-Ecosociety II

Obligatory reading:

Thorp, J.H., Thoms, M.C. & Delong, M.D. (2006) The riverine ecosystem synthesis: Biocomplexity in river networks across space and time. River Res. Applic. 22: 123-147.

Day 6 River-as-Subject I

Obligatory reading:

Clark, N. & Yusoff, K. (2017) Geosocial Formations in the Anthropocene. Theory, Culture & Society 34(2-3): 3-23.

Complementary reading:

Huijbens, E. (2021) The emerging earths of climate emergencies: on the island geography of life in modernity's ruins. Geografiska Annaler: Series b, Human Geography 103(2): 88-102.

Day 7 River-as-Subject II

Obligatory reading:

Kinkaid, E. (2019) "Rights of nature" in translation: Assemblage geographies, boundary objects, and translocal social movements, Trans Inst Br Geogr. 44: 555– 570. https://doi.org/10.1111/tran.12303

Complementary reading:

Dik Roth (2020) Rivers as legal subjects: A review essay, The Journal of Legal Pluralism and Unofficial Law, 52:3, 351-359.

Cano Pecharroman, L. (2018) Rights of Nature: Rivers that Can Stand in Court. Resources 7(13).

Day 7 River-as-Movement I

Obligatory reading:

Wals, A. (2020) Adult education, learning, citizenship and sustainability. GRALE Background paper.

Stapp, W.B. (2000) Watershed Education for Sustainable Development. Journal of Science Education and Technology, 9(3): 183-197.

Day 8 River-as-Movement II

Obligatory reading:

Villamayor-Tomas, S. and García-López, G.A. (2021) Commons Movements: Old and New Trends in Rural and Urban Contexts. Annual Review of Environment and Resources 46(1): 511-543