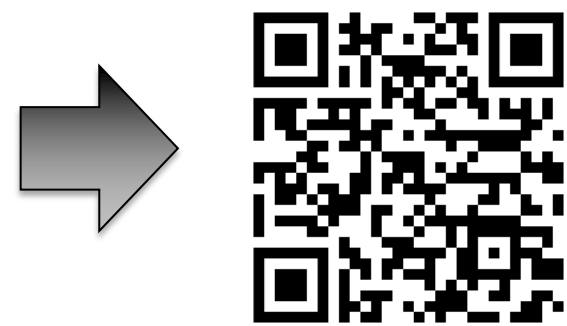


Mapping the Kansan Anthropocene at Hidinginplainssight.org



MAX PLANCK INSTITUTE
OF GEOANTHROPOLOGY

Georg N. Schäfer^{1,2}
Brian Holmes^{2,3}

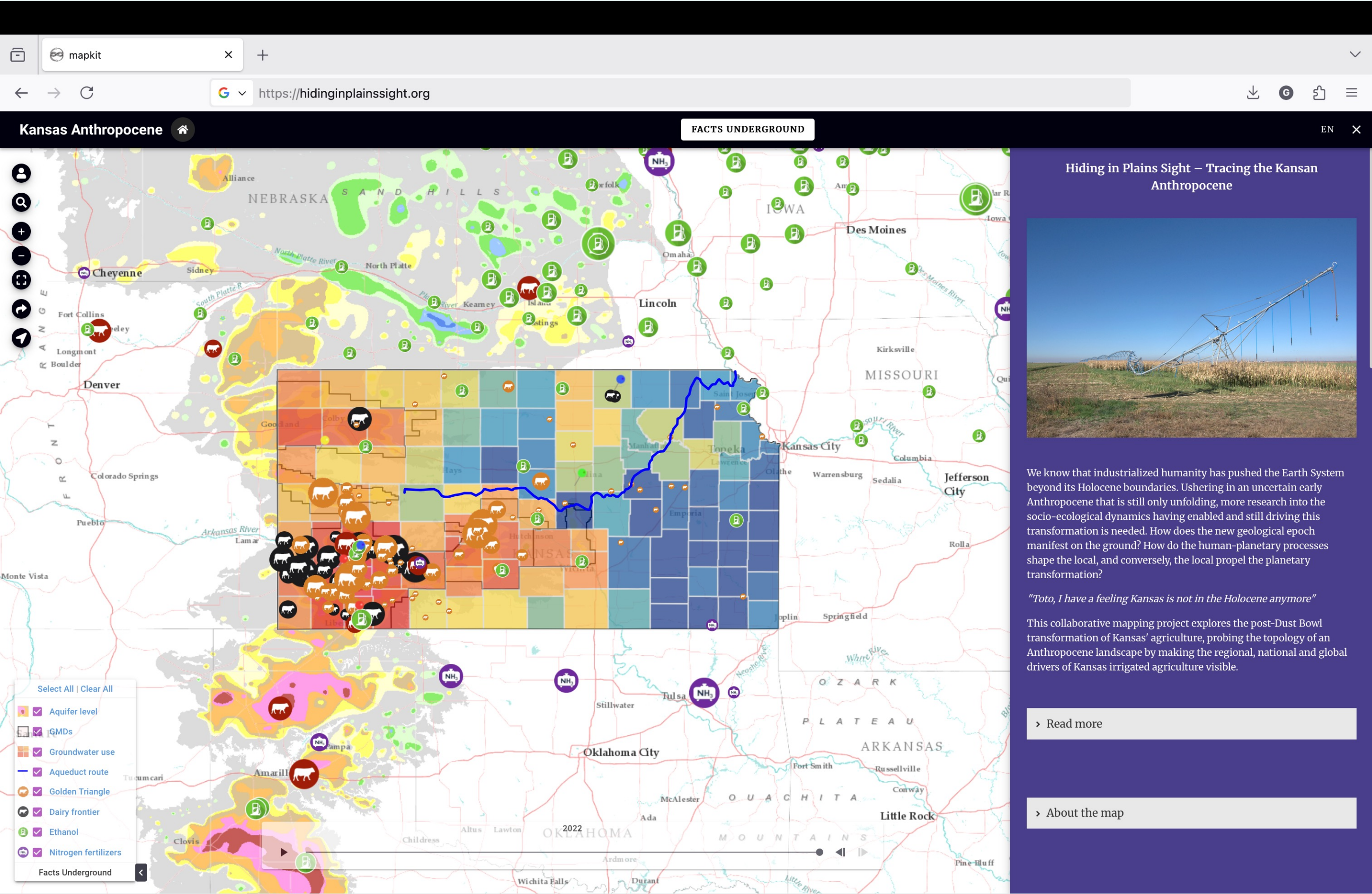
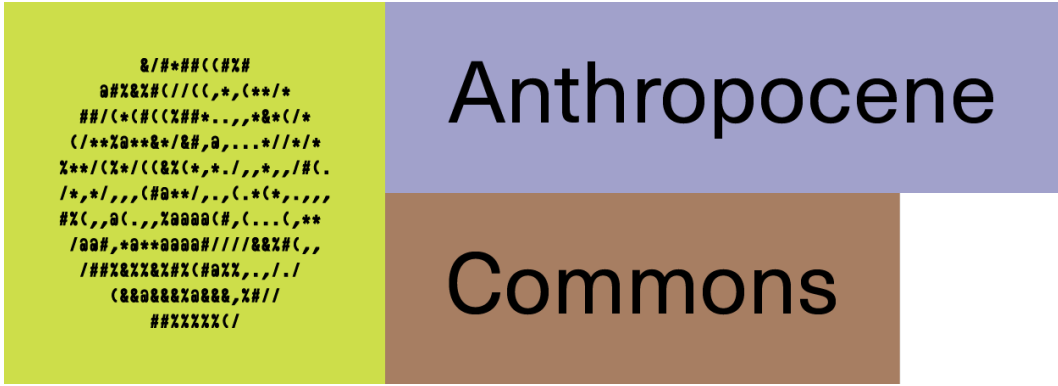


Figure 1: Screenshot of <https://hidinginplainssight.org> landing page

Why a Kansan Anthropocene?

The Anthropocene marks the moment when socio-economic systems became the main drivers of natural cycles. Western Kansas’ agricultural economy is a textbook example of this new planetary condition. Here, irrigated farming dominates the water cycle, even cooling the regional atmosphere during the growing season. The use of fertilizers and pesticides shapes soil chemistry, biodiversity, and ultimately the quality and quantity of groundwater. In this way, the hydrosphere, atmosphere, biosphere, and lithosphere have become tightly coupled to the logics and global logistics of industrial agricultural production.

How can it broaden our understanding of the groundwater crisis?

This human dominance of the regional geospheres enabled Western Kansas to stabilize itself and grow from Dust-Bowl land into a global breadbasket. Yet the very forces that made that transformation possible now undermine its foundations: declining aquifer, soil degradation, and a growing dependence on energy-intensive inputs reveal how local prosperity is entangled with planetary risk. Thinking through Kansas as an *Anthropocene landscape* helps to trace how this knot was tied — how technological progress, cultural imaginaries, policy incentives, and market pressures fused into a self-reinforcing system that is difficult to steer. It also clarifies what kind of “super-wicked problem” the groundwater crisis has become: one whose causes, consequences, and potential solutions are inseparable from the wider Earth system it helped to transform.

Anthropocene dynamics – what’s at stake

Western Kansas’s groundwater crisis is not only a technical or climatic issue. It is a structural outcome of a global production system. Recognizing this as an Anthropocene dynamic reframes policy: sustaining the Ogallala requires transforming how energy, land, and markets interact. By revealing these interconnections, the WebGIS aims to support evidence-based debate on feasible adaptation pathways — from targeted conservation zones to re-scaling industrial demand.

Bringing the drivers together – an open WebGIS project

- Maps of Kansas groundwater use are the most sophisticated of all states overlying the High Plains/Ogallala aquifer.
- Yet, they are often a partial picture by isolating individual dimensions — wells, land cover, or precipitation — while leaving others, more political factors out.
- Industrial feedlots, ethanol plants, or the proposed aqueduct route, for instance, are rarely shown alongside aquifer decline, though they are central to a full picture of the region’s hydro-social cycle.
- Our open WebGIS project brings these drivers together on one map. It integrates water, land, industry, and governance data
- Users can explore layers ranging from well locations and irrigation intensity to feedlots, dairies, and policy zones such as GMD – with a story map function offering deep dive case studies
- Time sliders allow users to go back up to 70 years and reveal how the High Plains’ transformation emerged and persists – historicizing and thus de-normalizing the current trajectory.

From map to method – tracing the socio-ecological knot

- By assembling these fragments into a single view, the map invites a more complete, and at times uncomfortable, conversation about groundwater risk
- not only as a hydrological issue but as a socio-economic configuration that has reshaped the region’s landscapes and future options.
- This way, the WebGIS is more than a visualization; it is a way to think across disciplinary and institutional divides. By linking industrial infrastructure, hydrological data, and policy boundaries, it enables a systems view of the groundwater crisis.
- The map offers a shared workspace where scientists, planners, and communities can test narratives, compare assumptions, and collectively diagnose how the region’s present trajectory has come about — and where it might still be steered.

This project is a collaborative open access project – published in-progress. Reach out (bottom right) if you want to use the map for your work or contribute to develop it further.

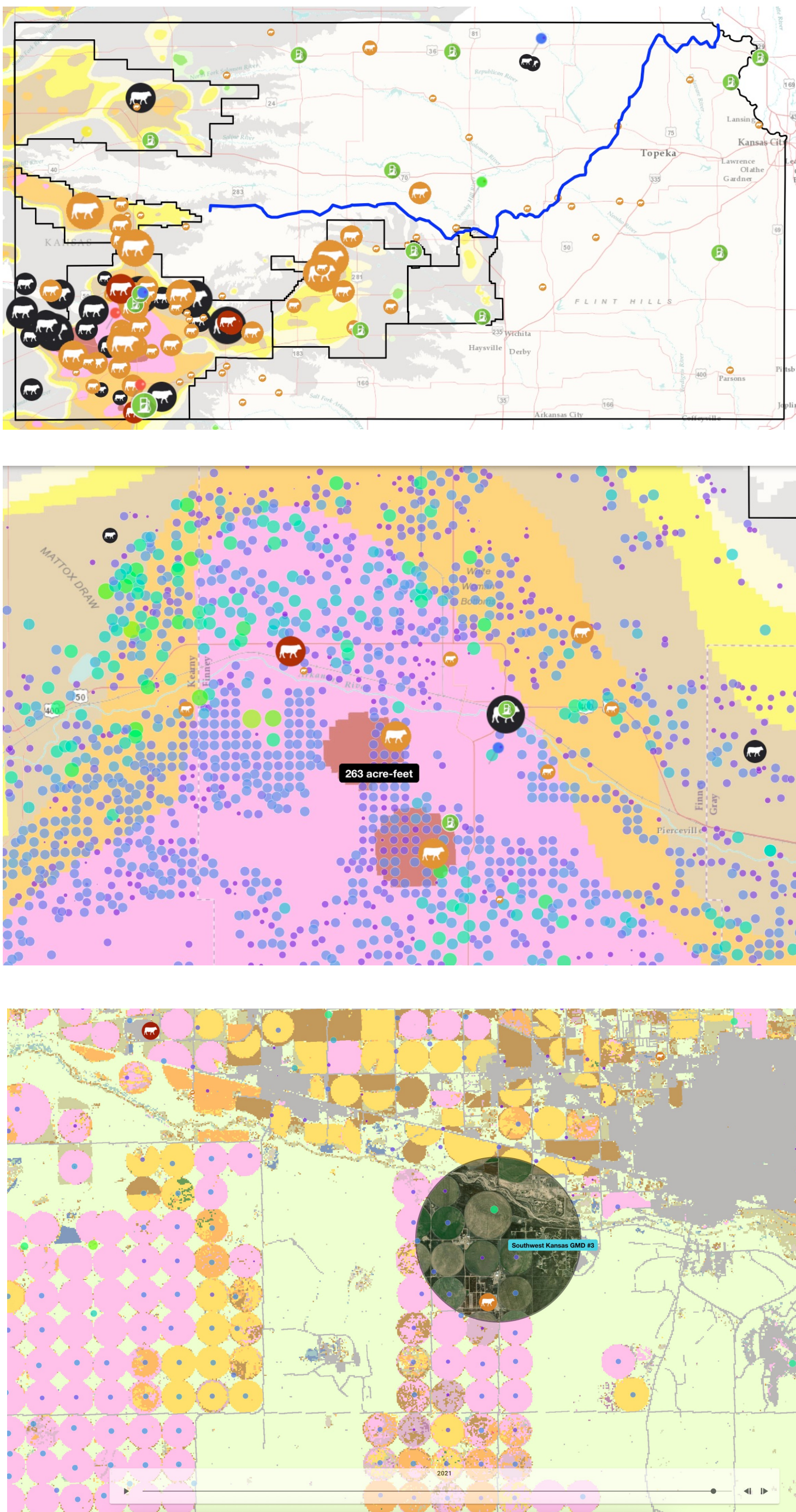


Figure 2: Screenshots of the website, from state, to county and field scale.

Affiliations:
¹Max Planck Institute of Geoanthropology, Jena, Germany
²Anthropocene Commons e.V.
³Watershed Art & Ecology, Chicago, IL

Contact details:
Georg Schäfer
Schaefer@gea.mpg.de or
kansasanthropocene@gmail.com