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# NOT IN MY CITY:
# RURAL AMERICA AS URBAN DUMPING GROUND

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## INTRODUCTION

During the last twenty years, designers and planners have firmly fixed attention on the patterns and processes of urbanization. The contemporary city is touted as the key to technological, economic and cultural innovation while rural decline is accepted as inevitable. This resignation to the eventuality of rural decline has facilitated an exploitative relationship between urban hubs and their rural hinterlands. In the United States, Locally Undesirable Land Uses (LULUs) are increasingly being pushed out of cities and into rural areas. Looking for stable economic investments, policy makers and officials in rural areas across the country actively court landfills, prisons, and meat production and processing facilities in hopes of creating new jobs and generating revenue for towns in need of economic revitalization. The siting of such unsavory land uses typically exploits disadvantaged and unempowered communities and makes the rural-dumping ground paradigm particularly problematic.

While the economic benefits of LULUs are largely unproven, the negative environmental and social consequences can be wide ranging. Landfills and livestock operations, for example, pollute land, air, and water resources, negatively impacting biodiversity and public health. As an out-of-sight-out-of-mind strategy, the geographic displacement of these ecologically and socially damaging systems enables relocation over reformation. By analyzing the geography and design of meat production and processing facilities, landfills, and prison complexes, this study seeks to illuminate the extent to which unwanted urban land uses are impacting rural areas today.

### Rural Livestock Production and Processing

At the turn of the 20th century, slaughterhouses were common fixtures of the urban landscape. Cattle and hogs were transported by rail to stockyards in Chicago, Cincinnati, St. Louis and Kansas City, where they could be processed and distributed to nearby markets. In response to national trends of urbanization and industrialization, animal processing emerged as one of the first mass-production industries in the United States, from which Henry Ford is thought to have derived his mode of assembly line production. Slaughterhouses were not hidden from the public eye, but rather celebrated as icons of progress and innovation. In fact, during the World Columbian Exposition in 1893, more visitors explored the Chicago stockyards than any of the Exposition's other novel attractions.[1]

After the publication of Upton Sinclair's exposé, *The Jungle*, however, the fascination with this industrialized slaughter was gradually replaced by a collective distaste for the brutality of the meat processing industry. As Richard Bulliet describes in his book *Hunters, Herders and Hamburgers: The Past and Future of Human-Animal Relationships*, contemporary American society "continues to consume animal products in abundance, but psychologically, its members experience feelings of guilt, shame and disgust when they think (as seldom as possible) about the industrial processes by which

domestic animals are rendered into products." [2] To assuage our collective cultural guilt, the slaughterhouse was relocated, but not reformed. By the mid-1950s, spurred by advancements in refrigeration technology and the expansion of the Interstate Highway system, packinghouses were relocated to be closer to livestock producers.

As processing facilities industrialized, a shift also occurred from raising livestock in small numbers on geographically widespread medium-sized farms to producing livestock in much larger numbers on fewer farms known as Confined Animal Feeding Operations, or CAFOs. A CAFO is a regulated animal feeding facility that confines a large number of animals for more than 45 days in an area that does not produce vegetation during the growing season. Economies of scale, modern machinery, biotechnology, and global trade have encouraged the development of this highly efficient mode of production. The US Environmental Protection Agency classifies an operation as a CAFO if it houses more than any of the following number of animals: 1,000 cattle, 2,500 pigs, 10,000 piglets, 55,000 turkeys, 125,000 broiler chickens, or 82,000 laying hens.[3]

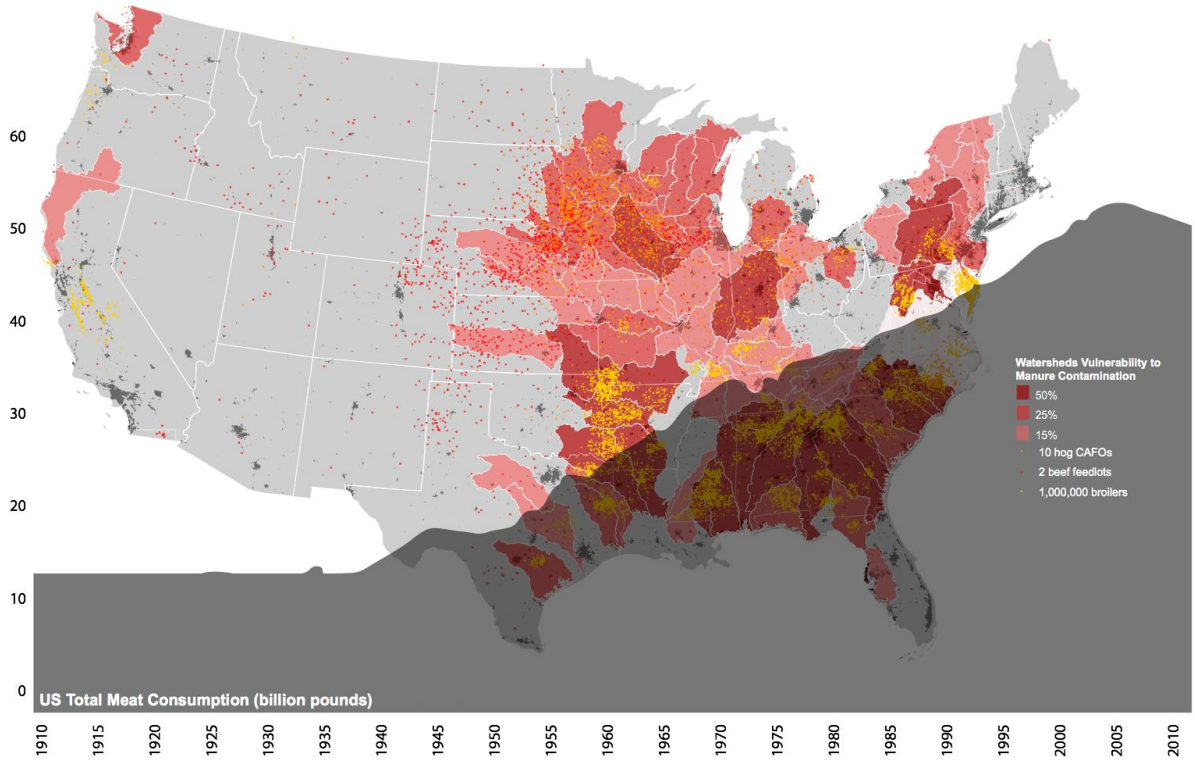


*Figure 1. Mapping livestock production, meat consumption and watershed contamination*[4]

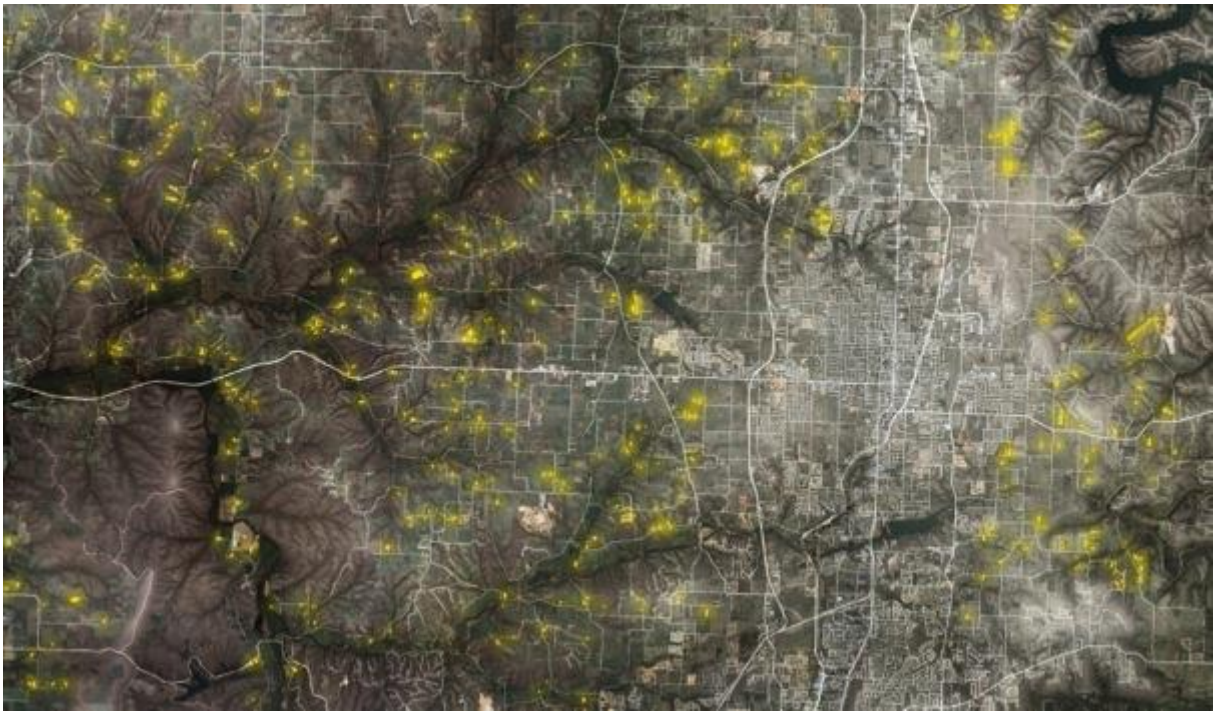

*Figure 2. The siting of poultry CAFOs along hydrologic corridors in Northwest Arkansas makes the watershed particularly vulnerable to contamination*[5]

With so many resident animals, it is not uncommon for a single CAFO to generate the same amount of waste as a city of 100,000 people.[6] The waste is often left untreated to sit in barns or large lagoons before being sprayed or spread on adjacent fields. Problems arise when the scale of massive production outstrips the ability for waste to be applied to and safely absorbed by the surrounding fields and farmland. Fields may be too wet or the surrounding area not large enough. Rain may wash manure from lagoons, piles and fields into ditches, creeks, and subterranean drainages, contaminating the watershed. In the United States, such waste has polluted 35,000 miles of rivers and has significantly contaminated groundwater in 17 states.[7] According to the Pew Commission, over 1 million Americans are estimated to take their drinking water from such contaminated groundwater.[8]

Today, most urban livestock production and processing operations have been decommissioned. Unlike the grand buildings of the Union Stockyard Era, the architecture of the contemporary slaughterhouse is generic and placeless. Set back from the street and restricted from public access, the nondescript structures are designed to look like any other factory. Such designed indifference has enabled the livestock industry to remain largely unchallenged over the years. Meat processing has always been physically demanding, unpleasant and dangerous work, currently performed by a mostly immigrant labor force. There has been, however, a significant change in where this unsavory work occurs. Sociological and anthropological research in meat-processing "boom-towns" such as Garden City, Kansas and Brooks, Alberta, Canada has shown that the negative effects of slaughterhouses and feedlots can often outweigh perceived economic benefits. Such effects include rapid shifts in demographics, increases in crime, and strains on local infrastructure, healthcare and other social services.[9]

If the realities of meat production and processing were rendered visible, society would be compelled to advocate for a more local, sustainable, humane, transparent and just system of meat production. Excess

waste from confined feeding operations and processing by-products could be used to support sustainable aqua and agricultural systems. Rotational grazing strategies could protect soil quality, while creating valuable habitat for grassland species. Smaller, multi-species processing facilities distributed more evenly across livestock producing regions, could encourage small-scale husbandry practices while improving quality of life for both animals and workers alike. However, the geography and design of the contemporary livestock industry leaves does little to encourage such change. Away from populated areas and hidden behind a generic façade, the industrial obscurity enables Americans to avoid the collective moral dilemma of animal consumption.

## Rural Dumping Grounds

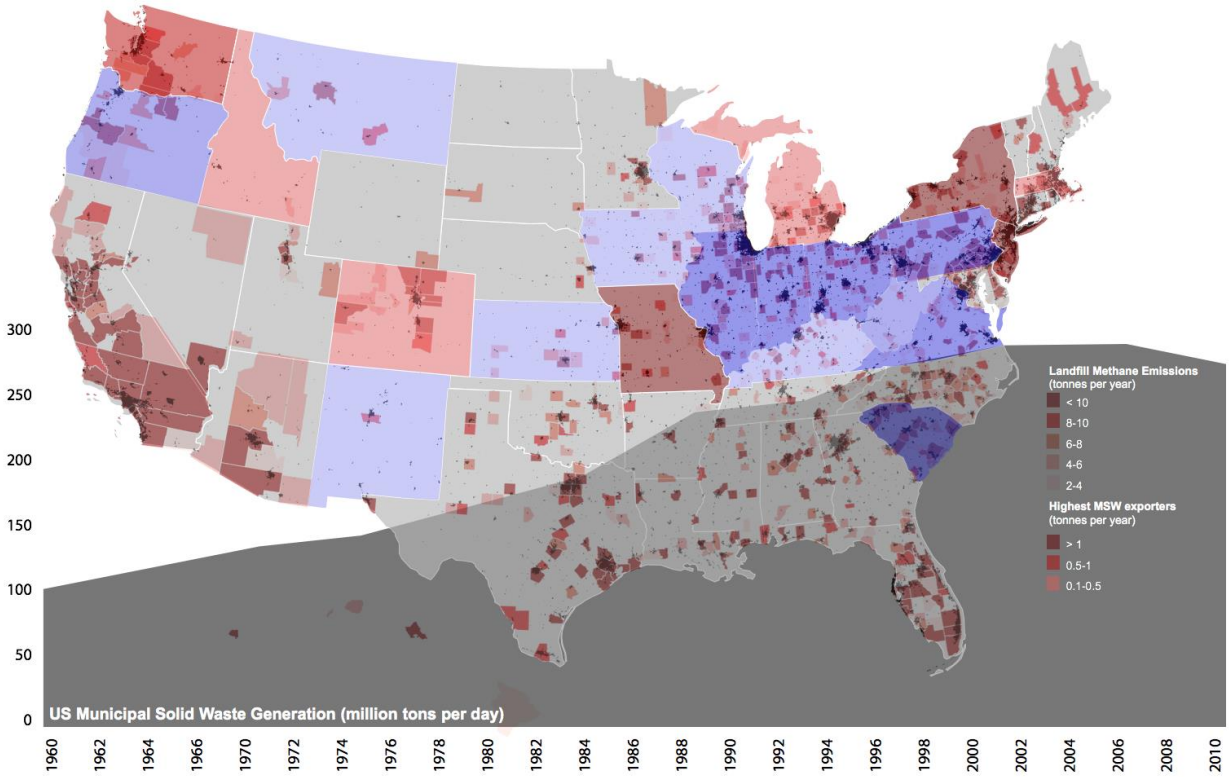


*Figure 3. Mapping municipal solid waste generation, export, and emissions*[10]

Just as livestock farms generate too much waste for nearby land, most American cities generate too much solid waste for local landfills. Beginning in the 1800s, urban solid waste management was established as a local responsibility, with waste sent to local municipal dumps. As urban waste began to outpace the holding capacity of local landfills and the environmental consequences of waste disposal became apparent, legislation in the 1970s forced the closure of open urban dumps nationwide and required regional planning for municipal solid waste management. Today, the United States has a total of 1,908 active landfills: 128 are sited in the Northeast, 668 in the South, 394 in the Midwest, and 718 in the West.[11] These landfills pollute the air, and when improperly designed, can contaminate the water table with toxic leachate. Though the federal government established strict laws for the construction and maintenance of landfills, living in close proximity to a landfill is associated with increased likelihood of disease. The adverse health effects near individual landfill sites can include low birth weight, birth defects, and certain types of cancers.[12]

With local urban communities unwilling to tolerate the noxious smells and environmental consequences of landfills, more urban trash is winding up in rural communities where political resistance is minimal. Taking into account tipping fees and land values, the economic advantages of waste export can be immense. The difference in tipping fees ranges from $11 per ton in the Midwest and Southwest to more than $100 per ton in the Northeast.[13] With such an extreme price differential, states with higher tipping fees have a big incentive to transport their waste long distances. This leads to waste accumulating in rural states, where population density and average incomes are lower.

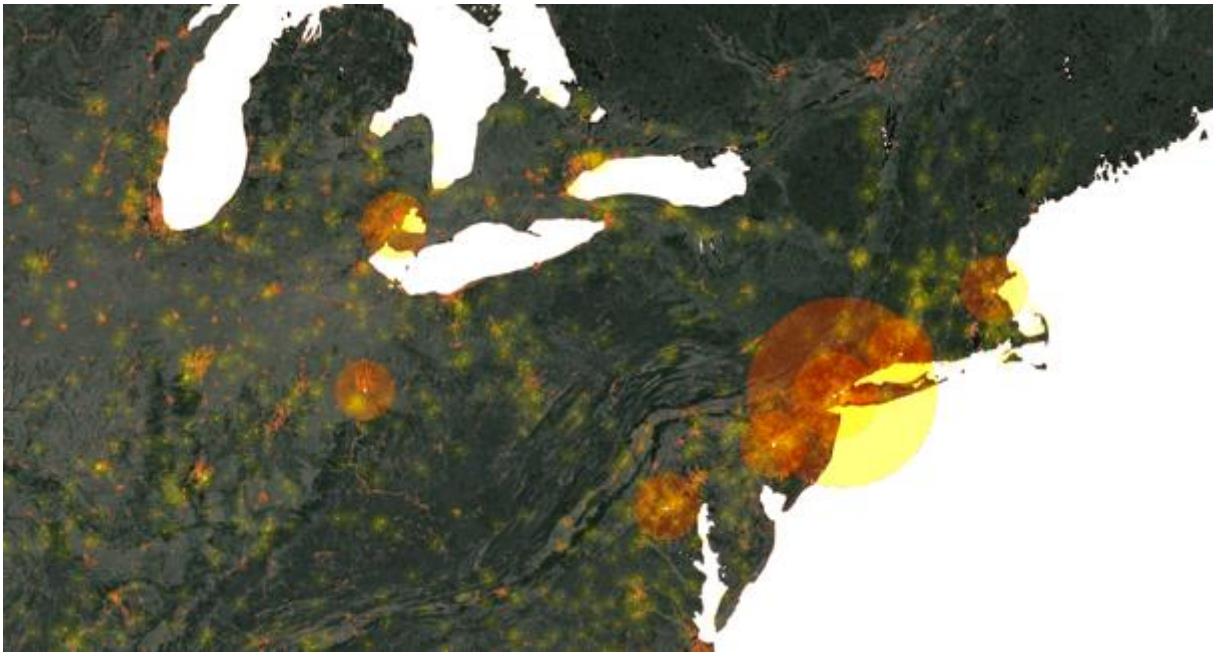

*Figure 4. Mapping rural landfills and primary urban waste exporters of the Northeast*[14]

Exporting municipal solid waste (MSW) to less densely populated areas has become the norm for metropolitan regions like New York City. When the notorious Fresh Kills landfill, at one time the largest man-made structure in the world and an icon of America's waste problem, closed, the city of New York committed to exporting its trash to regional landfills. Each year, the city exports approximately 6 million tons of trash by truck and rail to landfills and incinerators in New Jersey, Ohio, Pennsylvania, Virginia and South Carolina. Such waste export raises numerous environmental and social justice concerns. Each year, trucks travel 40 million miles to dispose of New York City's waste alone.[15] Transporting MSW such long distances exacerbates environmental damage by contributing to greenhouse gas emissions. This transfer of waste also allows wealthier communities to push their environmental costs onto predominately low-income communities in rural areas.

Transporting urban garbage to far away rural locations allows urban inhabitants to avoid confronting the consequences of excess waste. Urban populations push their waste into someone else's backyard, forcing those communities to deal with air pollution and groundwater contamination that is a result of affluent, consumptive lifestyles. By re-conceptualizing waste as an opportunity, the relationship between urban waste generators and rural communities could be a positive one. A recycling and post-consumer manufacturing industry could bring much-needed jobs to rural areas, while compost facilities could provide organic compost for regional farms. With the consequences of waste left hidden in far

away landfills, however, little remains to incentivize urban communities to place more value on recycling, re-using, composting, and manufacturing goods that are built to last.

## Rural Prisons

The rural communities that import urban trash are often the same communities that compete for prisons, each a culturally unappealing and non-productive industry that requires large tracts of land. Since 1980, the majority of new prisons have been built in non-metropolitan areas, and as a result, the majority of predominately urban prisoners are now housed in rural America. In fact, in the United States today, prisoners outnumber small family farmers.[16] During the last three decades, rising incarceration rates coupled with the decline of rural economies have resulted in prisons emerging as a "growth industry" in rural America.

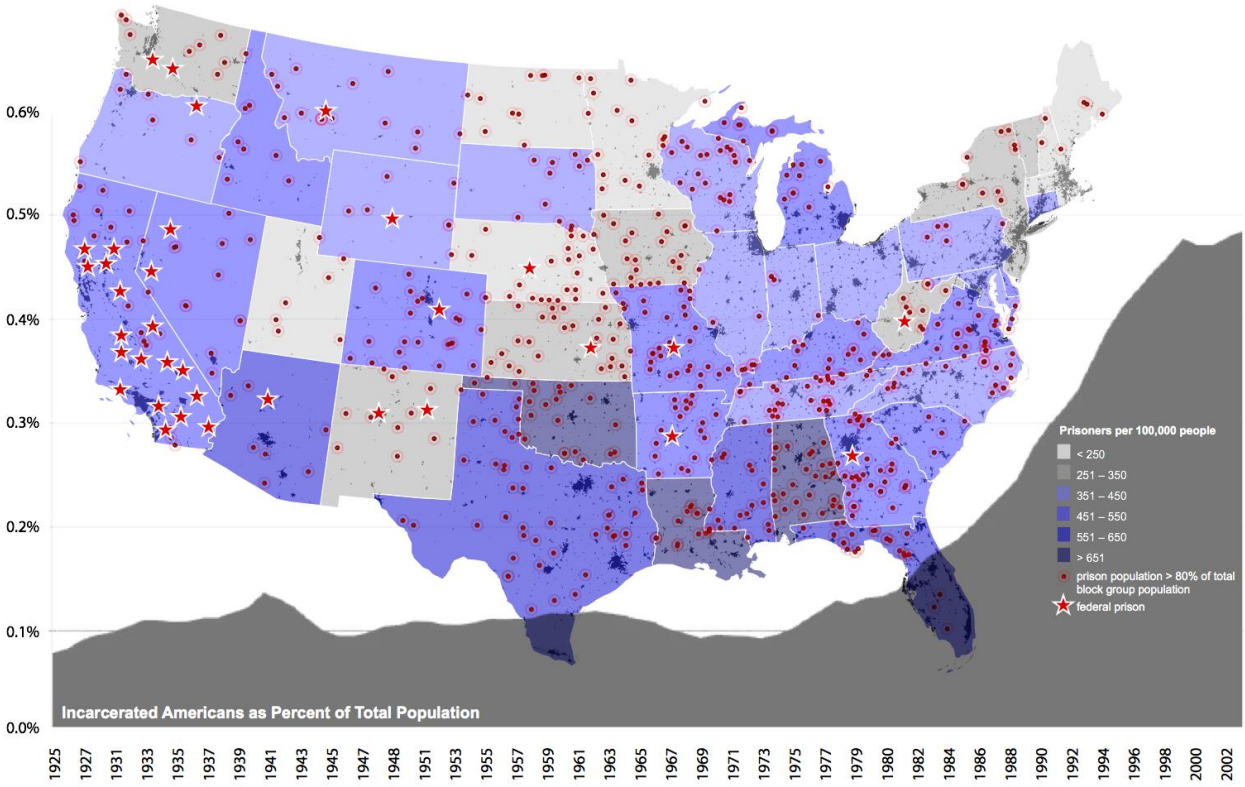


*Figure 3. Mapping inmate density*[17]

The promise of a secure growth industry has started a bidding war between small towns competing to host new state prisons. The prison site selection process is the result of a complex interchange between local and state officials. Towns selected for prison sitings are typically chosen because they meet infrastructural requirements (e.g. proximity to highways, sewer and water accessibility) and they offer land for a competitively low price. This has led many towns to take out loans in order to upgrade their infrastructure and to sell their land for far below market value.[18]

Regrettably, the promise of economic growth as a result of the prison industry has remained largely unfulfilled in rural America. Research on the prison boom indicates that, when compared to non-prison towns, new state prison communities experience less growth and see increased levels of unemployment

and poverty.[19] This phenomenon results from the fact that the prison industry fails to create any type of economic bond with its host town. Prisons do not depend on adjacent small towns for the vast majority of their inputs, including employees. The majority of prison jobs go to commuters from other towns who are better qualified than members of the host community.

Surrounded by razor wire and high walls, prisons are commonly surrounded by a substantial spatial buffer that separates the prison from society at large. Prison facilities are thus isolated from both the urban communities that supply the inmates and the rural communities in which they are sited. The geographic and architectural concealment of prisons belies the fact that there are over two million incarcerated people in the United States today. This concealment allows the special interest groups that are profiting from the prison industry to grow their businesses while most of the American population remains unaware of what is transpiring in remote regions of the United States. This paradigm of spatial secrecy is not immutable. By removing landscape barriers and developing new architectural typologies, designers could help uncover the realities of incarceration and, in so doing, encourage society to enact change.

## Conclusion

We seldom think about where our trash goes, how animals are slaughtered for meat, or what happens to the 2.3 million Americans locked behind prison walls. This is no oversight – it is designed. The remote siting and placeless design of livestock operations, waste management systems, and prison complexes allow society to avoid confronting the unsettling nature of wastefulness, slaughter, and imprisonment. From water contamination to increased crime, the ecological and social consequences of such designed indifference can be wide ranging. Hidden from public view, the ecologically and socially damaging nature of these industries will remain unchallenged.

Architects and Landscape Architects are uniquely positioned to examine these systems and develop scenarios, typologies, and generative spatial principles that reconcile rural resources with urban demands. With considerate design and participatory planning, ecologically and socially damaging urban industries could potentially be transformed into assets for rural communities. Expanded free range and sustainable husbandry methods, coupled with small scale processing and distribution networks, could improve the quality of life for both the animals and the people responsible for their slaughter. Recycling and post-consumer manufacturing enterprises could help to enliven stagnating rural economies. Urban food and land waste could be composted and used as fertilizer in a new model of nutrient efficient agriculture. A new prison typology that allows the public to see beyond its walls, figuratively if not literally, might force society to reexamine the racially and culturally complex realities of incarceration. Though far from comprehensive, these potential solutions should be a springboard for further design investigation. The time has come to identify synergies and strategies hidden within existing urban-rural relationships. In so doing, designers can contribute to a more sustainable, humane, and fair future for rural and urban communities alike.

## ENDNOTES

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