sustainable boomtowns

CPLN 704
PennDesign Spring 2015 Elective Studio
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sustainable boomtowns

how can planners, architects and landscape architects address the challenges of this century’s energy boomtowns in a sustainable way?
how can planners, architects and landscape architects address the challenges of this century’s energy boomtowns in an equitable way?
historical

• 19th century
  – industrial revolution
  – railroads
  – mining / gold rush era

• 20th century
  – oil (Texas, Alaska …)

• 21st century
  – oil part 2
  – fracking
global trends

• North America / Canada
  – Alberta / Fort McMurray
  – Saskatchewan
  – Manitoba

• Africa
  – Ghana
  – Botswana

• South America
  – Quito
  – Panama
bakken region

- HUD-funded regional plan for sustainable development
- 19 counties
- community engagement
- 5 focus areas
  - Child Care,
  - Emergency Services
  - Housing
  - Transportation
  - Water
bakken region

- http://bakken.com
- 52k people in 60 years
- 50k people in 4 years
- state budget quadrupled from $4 to $16 billion
- extended low oil pricing threatens to cut $ by 1/3
- local municipalities are on the hook for millions in infrastructure bonds
bakken region

- 2014 rents 2\textsuperscript{nd} highest in US between the Bay Area and Key West
- urban design is left to the developers
- density is at odds with local character / identity
- parks are small and not well integrated
bakken region

- new community models
- indoor / outdoor rec
- intensity vs density
- parks aren’t integrated
- winter recreation model?
growth management

• sprawl vs intensification
• new towns
• cultural change
• future of agriculture
• renewables
• economic diversification
• post-boom?
housing

• mobile homes / rv’s
• manufactured homes
• rental vs buy
• multi-story vs singles
• man camps
housing

the man camps

“Temporary doesn’t have to mean ordinary, and we’re determined to deliver an experience that brings your employees satisfaction, relaxation, and restful sleep after a busy workday. South Heart Lodge offers satellite television in every room, theater facilities, tri-weekly housekeeping, and a dining hall option of three hearty meals per day. Your employees will have all the amenities and comforts they need to stay productive and motivated.”
housing

the man camps

“We offer a manufactured housing building experience you can trust and the quality home you deserve. When time and money is of the essence, we are here to help!”
architecture

- container homes
- ‘tin cribs’
- tinygreencabins.com
- diy homes
- the new mobile homes
- new technologies
- net zero in subzero?
commerce

• the new “wild west”
• espresso
• casinos
• office parks
• lifestyle centers
• new main streets
• international interests

money, money, money
environment

• how does growth address “zero harm”? 
• what happens during slow growth period? 
• how extreme weather affect landscape form? 
• what does a restoration plan look like?
investigate urban models

How does commuting among the cities and towns impact policy choices to invest in some areas that provide better amenities and is there a mobility plan to address commuting in the region?
investigate urban models

What are the best practices for dealing with boomtowns in terms of new towns and growth scenarios?
investigate urban models

With the permanent industry workforce population about 60% of the total, how and where should growth occur that will be sustainable after the boom time?

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How does the demographic shifts affect housing choice, both in location, tenancy and form?
investigate urban models

With a suburban development pattern as the predominant form, what adaptations are possible?
investigate urban models

What architectural solutions are possible for the temporary and permanent housing that better integrates with the existing patterns of development?
investigate urban models

What happens to the areas of temporary housing during periods of disinvestment or after the boom’s decline? – 2050, 2100?
investigate urban models

With the HUD-funded plan laying out significant policy choices for the state, what implementation tools are possible in the conservative climate of North Dakota?
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