GEORGIA PLANNING ASSOCIATION 2012 FALL CONFERENCE

International Perspectives: Germany, Iraq, Russia

German Approaches to Brownfield Redevelopment: Insights for Georgia’s Cities

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Outline

- Introductions
- Brownfields area-wide planning in Atlanta, GA
- International exchanges between planners
- Kaiserslautern and brownfields
- U.S. planning studio experience
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Introductions

- Georgia Tech School of City and Regional Planning Fall Studio
- City of Atlanta U.S. EPA Brownfields Area-wide Planning Pilot Grant (2010-2012)
- 9 Georgia Tech Masters students
- 3 Technical University of Kaiserslautern Masters students in Urban and Regional Development
- International experience for German and U.S. planning students

Source: Hoelzel (2012)
Brownfields Area-wide Planning Atlanta, GA

- New revitalization approach
  - Expands Atlanta’s brownfield programs
  - Focuses on brownfields-impacted neighborhoods where revitalizing areas surrounding brownfields is critical to reuse
- Studio is comprehensive
  - Implementation strategy, background report and supporting information
  - Urban design, GIS and socioeconomic analysis to community and economic development
  - Public health and safety
  - Sustainability and environmental justice
International Exchanges between Planners

- Importance to the field of City and Regional Planning
  - Brownfield and neighborhood revitalization in a global economy and society
  - Exchanges of lessons learned, best practices, and challenges
  - Preparing future generation of planners

- 7 insights for Georgia’s cities

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Kaiserslautern, Germany

- 100k residents + 50k Americans
- Ramstein Airbase
  - Largest American military community outside U.S.
- From manufacturing...
  - Pfaff (sewing machines)
  - Opel (automotive)
- ...To science and technology
  - John Deere European Technology and Innovation Center
  - Fraunhofer Institute (national system of applied research centers for sustainability and industry)

Source: National Geographic, Esri ArcGIS Explorer Online (2012)
Brownfields in Kaiserslautern, Germany

- Industrial and military brownfields

City of Kaiserslautern, Germany
U.S. Planning Studio Experience

- Learning experiences
  - U.S. EPA Region 4, 2012 Southeast Environmental Justice Conference
  - Brownfield site visits with local stakeholders
  - Discussions with businesses, city planners, and environmental professionals
  - Meetings with U.S. EPA officials
  - Attended City of Atlanta Zoning Review Board (ZRB) meeting
  - Examined other U.S. EPA Area-Wide Planning Projects
  - Working with U.S. planning students

Source: GPA www.epa.gov (2012)
Brownfield Redevelopment in Germany: Challenges

- Legacy of East and West Germany
- Implications of reunification in 1990
  - Population shifts
  - Economic disparities
  - Sprawl and rapid loss of greenfields
  - Reforming planning institutions
  - Securing resources
  - Developing public-private partnerships
- Over 360,000 brownfields in Germany
  - Deindustrialization in Germany
- Large brownfields
  - Closed military bases
  - Idled government-owned industrial sites

Brownfield Redevelopment in Germany: Approaches

- **National brownfield framework** (Federal Soil Protection Act adopted 1998)
  - Federal, state, and local funding to spur private investment
  - Polluter pays principle (Special focus on military base cleanups)
  - National and state risk-based clean-up standards
- **Reusing brownfields under National Sustainability Strategy (2002)**
  - Reduce sprawl: 30 ha/day (74 acres) greenfield conversion by 2020

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Former state-owned railyard

25-acre, 80M €, R&D Park

Technical University of Kaiserslautern

2000-2010 Public-Private Redevelopment Project in Kaiserslautern
Insight 1. Interim Use

- Temporary, flexible use of buildings and sites with lower investment
- Potential benefits of interim use
  - Prevent vandalism
  - Maintain (and increase) property values
  - Keep redevelopment options open for eventual permanent use
  - Provide revenue stream for property owner
  - Create positive public perception and place branding

Interim use of brownfield: 4-acre urban farm along the BeltLine

Interim use of vacant warehouse: Local art gallery in Atlanta

Source: Hoelzel (2011, 2012)
Insight 2. Shrinking Cities & Greening Cities

- Declining population creating vacancy
- “Shrinking cities” in eastern and rural Germany
- “Right-sizing” planning approaches
  - Adopt no/slow-growth development
  - Support compact urban centers
  - Strategically demolish (e.g., housing towers and large industrial complexes)
  - Reuse existing, viable housing stock
  - Update infrastructure and consider abandonment
  - Green vacant lots
  - Reintroduce nature to the city
  - Link public health with planning

Population shifts started after Germany’s reunification continue in the future.

Abandoned Regions
Estimated population changes (2008-2025), in percent

Source: Spiegel Online. www.spiegel.de (2011)
Insight 3. Neighborhood (Quarter) Management (NM)

- “Socially Integrated Cities” national initiative (started in Berlin in 1999)
- Bottom-up planning approach in “districts with special development needs”
- Response to gentrification and displacement after reunification
  - Private-led and government urban renewal
- Collaboration between residents, and public and private sector
  - Districts represent 4,000 to 25,000 residents
  - NM staff are trained, paid, and run offices
- Formal institution for residents to identify and express issues and ideas
  - Land use planning; Economic and workforce development; Social and human capital; Culture preservation; and Community integration and immigrant assimilation
Insight 4. Sustainable Buildings

- **Energy-efficient buildings**
  - Why the lack of solar in Atlanta?
    - Suitable for Atlanta’s climate
  - German perspective
    - Rising energy costs
    - Cost-savings after 10 years
    - Reduce CO₂
  - Integrate passive, zero-energy, and plus-energy buildings

- **Reusing building materials**
  - Embodied energy in building material
  - Deconstruction alternatives
  - Divert waste from landfills
  - Cost savings in construction
  - New businesses in building reuse
Insight 5. Public Transit as Economic Development

- Potential to improve transit options in southwest Atlanta
- German emphasis on transit-oriented development (TOD) and accessibility to entertainment, housing, and employment (w/industrial)
- Potential benefits of TOD
  - Affordable accessibility to and from work and stores
  - Shared space that attracts people to businesses
  - Safer and more appealing public space
  - Increase property values
  - Reduce air pollution and noise

Murphy Triangle offers TOD options with industry where MARTA and BeltLine intersect

Source: Hoelzel (2012)
Insight 6. Compatible Uses and Noise Abatement

- Noise from MARTA, freight rail, industrial traffic, and highways in planning area
  - Nuisance and poses possible health risk
  - Consequence of incompatible uses
  - Reduces attractiveness for new businesses/residents
- **German tools and approaches**
  - Noise map (visualization of noise)
  - Noise limit values and action plans
  - Active approaches
    - Railway on grass-covered surface
    - Noise protection wall (planted)
    - Building position
  - Passive approaches
    - Room arrangement
    - Noise protective materials

Source: Steinebach, Guhathakurta, Hagen (2009)
Source: Hoelzel (2012)
Insight 7. Innovative Milieu

- Not many brownfields in Germany are reused for manufacturing
- Focus on creating new areas for innovation
  - Partner with universities and research centers
  - For example, Kaiserslautern’s “Fraunhofer” include the institutes for technological and economic mathematics (ITWM) and experimental software engineering (IESE)
- Networks and clusters of related businesses and specializations, and shared process and research and development needs
- Connections for small and medium-sized businesses
- Business incubators for new businesses and spin-offs
- Link apprenticeships and workforce training
- Plan and support mixed-use development that offers amenities and improves work place quality
Example: Innovative Milieu

PRE-Park Kaiserslautern, Germany

UCI Cinema
Research Institutes
Furniture Store
Adventure Pool
Residential Area
John Deere

Former Barracks
Today: Research Institutes

Aerial Photograph
UCI Cinema
John Deere - Building

Conclusion

How we contribute to Atlanta’s Brownfields Area-wide Planning...

- European approaches, other perspectives, new influences
- Linking topics
- Conceptual framework
- Thinking in the long-term
- Importance of sustainability
- Relevance of enhancing natural areas

What will we take back to Germany?

- Greater recognition of private investors in public partnerships
- Public engagement and communication with experts
- Prioritizing brownfields with resident input
- Other ways of brownfield cleanup (no total cleanup)
- Industry as sustainable local economic development
- Greater attention to environmental justice
End – Thank You

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