Analyzing and Visualizing Big Cultural Data

"shaping tools & tools that shape us"

Richard Marciano

Fifth International Symposium
We Shape our Tools and our Tools Shape Us

Feb. 6, 2013

http://salt.unc.edu
http://digitalinnovation.unc.edu

"Size Matters:

Big Data, New Vistas in the Humanities and Social Sciences":

DataEdge, UC Berkeley May 31, 2012

Geoffrey Nunberg Panel:



"Something seems to happen, people feel, when you get to that 13th zero, or 15th zero, or 18th zero, or 21st zero, wherever it is, and bingo it's the petabyte age, **it's the age of big data.**

It's like combing your hair, you just comb, and comb, and comb, and all of a sudden it's like big hair."

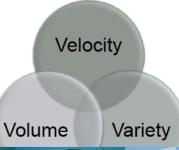
"The question is whether the advent of big data changes the way we do social science and also what role social scientists will play..."

12/31/2012 Forbes article by Edd Dumbill: "Big Data, Big Hype: Big Deal" "Big data is an imprecise term. As such it's a huge boon to marketers... not everyone is pleased with the "bigger is better" argument. "Big data" really means "smart use of data".

Big Data is the Convergence of the 3 "V's"¹

- Velocity
 - Moves at very high rates
 - Valuable in its temporal, high velocity state
- - Fast-moving data creates massive historical archives
 - · Valuable for mining patterns, trends and relationships
- Variety
 - Structured (logs, business transactions)
 - Semi-structured and unstructured

3 V's of Big Data



Research Issues:

- How to manage the speed of growth?
- How to archive?
- What to archive?
- How to access over-abundance?



Big Data is a Big Deal

White House announcement:

http://www.whitehouse.gov/blog/2012/03/29/big-data-big-deal

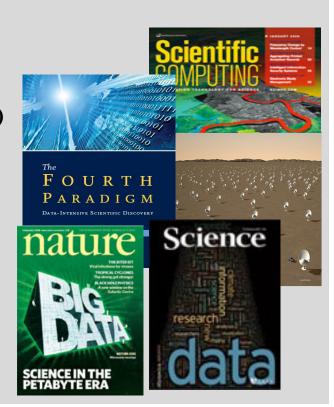
Big Data Across the Federal Government:

http://www.whitehouse.gov/sites/default/files/microsites/ostp/big_data_fact_sheet_final_1.pdf

More then \$200M in new commitments (NSF, HHS/NIH, DOE, DOD, DARPA, USGS)

Goal: "improve the ability to extract knowledge and insights from large and complex collections of digital data".

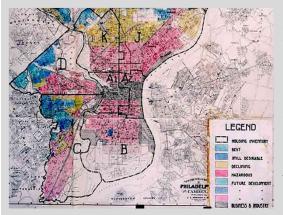
- * DataNet
 - Long-term preservation and access of data
- **Software Infrastructure for Sustained Innovation** (SI²)
- Digging Into Data Challenge (NSF/NEH/IMLS & JISC)
 - Computational Humanities
- Cyber-Enabled Discovery and Innovation (CDI)
 - Data enabled science and engineering
- Core Techniques and Technologies for Advancing Big Data Science & Engineering (BIGDATA)
- Data Infrastructure Building Blocks (DIBBs)
- DataWay
 - National Infrastructure for Heterogeneous Data



"The Unintended Consequences" of Big Data

Allistair Croll: "Big Data is our Generation's civil rights issue, an we don't know it."

1. "Personalization" is another word for discrimination. We're not discriminating if we tailor things to you based on what we know about you — right? That's just better service.

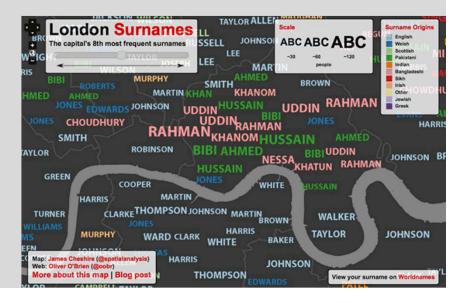


2. HOLC & Fair Housing. When bank managers tried to restrict loans to residents of certain areas (known as redlining) Congress stepped in to stop it (with the Fair Housing Act of 1968). They were able to legislate against discrimination, making it illegal to change loan policy based on someone's race.

Home Owners' Loan Corporation (HOLC) map showing redlining of "hazardous" districts in 1936. see: next slide

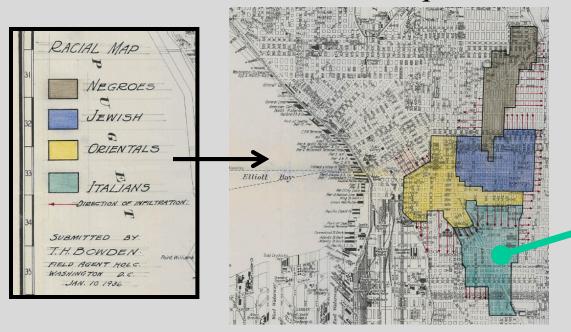
- **3. Music selection and sharing with friends** could allow to guess a person's racial background and deny a loan.
- **4. Publicly available last name information** can be used to generate racial boundary maps.

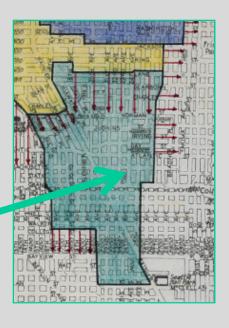
From the Mapping London project

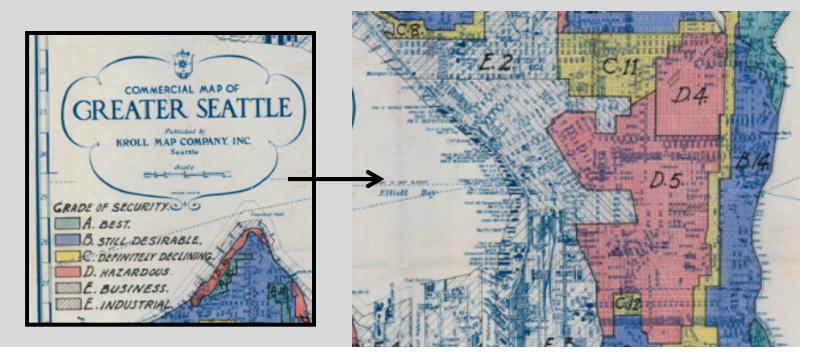


^{*} See Barbara Endicott-Popovsky's talk

The "Unknown Intended Consequences" of Redlining in Seattle in 1936







Research areas

Per IEEE BigData 2013, research topics include:

- •Big data science and foundations (models, standards, data and info quality, ...)
- •Big data infrastructure (clouds, grids, Hadoop, software, ...)
- •Big data management (data preservation, data provenance, crowdsourcing, ...)
- •Big data search and mining (visualization analytics, algorithms, ...)
- •Big data security & privacy (intrusion detection, threat detection, privacy threats, ...)
- •Big data applications (analytics, services, ...)

My research areas:

- •records in the cloud,
- •access to big heterogeneous data,
- •federated grid/cloud storage,
- •visual interfaces to large collections,
- •policy-based frameworks to automate content management,
- •distributed cyberinfrastructure to enable data sharing,
- •big cultural data.

Records in the Cloud



Delegating to cloud providers the responsibility for security, accessibility, disposition and preservation.

Kickoff meeting last Tuesday:

Collaborators from:

- across 4 countries
- iSchools, Law Schools, Business Schools, Information Technology and Media Dept.

Researchers



Principal Investigator
Professor, School of Library,
Archival and Information
Studies (SLAIS), UBC



Co-investigator
Assistant Professor, School
of Library, Archival and
Information Studies (SLAIS),



Anthony Sheppard

Co-investigator

Professor, Faculty of Law,
UBC



Ron Cenfetelli Co-investigator Associate Professor, Sauder School of Business, UBC



Collaborator
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Department of Information
Technology and Media, Mid-Sweden University



Collaborator
Professor and Director,
Center for Information
Assurance and
Cybersecurity, University of
Washington



Collaborator
Professor, School of
Information and Library
Science, University of North
Carolina at Chapel Hill



Basma Makhlouf Shabou Collaborator Professor, School of Business Administration, University of Applied Sciences Western



Yale Li Collaborator Research Director, Cloud Security Alliance, Seattle Chapter

Big Cultural Data?

\$5M / 5 year Mellon Foundation &UNC Digital Humanities Initiative (Jul. 2012)

- Funding of a Digital Innovation Laboratory (DIL)
- Targeted hiring of three tenure-track faculty members;
- Joint faculty fellowships with the Digital Innovation Lab and the Institute for the Arts and Humanities
- Graduate and postdoctoral fellowships;
- Grants for developing new courses;
- Workshops for faculty and graduate students;
- A graduate certificate for Ph.D. students;
- Exploration of an undergraduate minor in big data studies.

Big Cultural Data?

What is it and why should archivists care?

1.Cyber-Infrastructure for Billions of Electronic Records (CI-BER)

NATIONAL ARCHIVES & RECORDS ADMINISTRATION (NARA)

A joint agency sponsored testbed notable for its application of a multi-agency sponsored cyber infrastructure and the National Archives' diverse 87+ million file collection of digital records and information now active at the Renaissance Computing Institute. This testbed will evaluate technologies and approaches to support sustainable access to ultra-large data collections.

- 2.1940 Census Data
- 3. Historical City Directories Data
- 4. Historical Residential Segregation Data

1. CI-BER Project

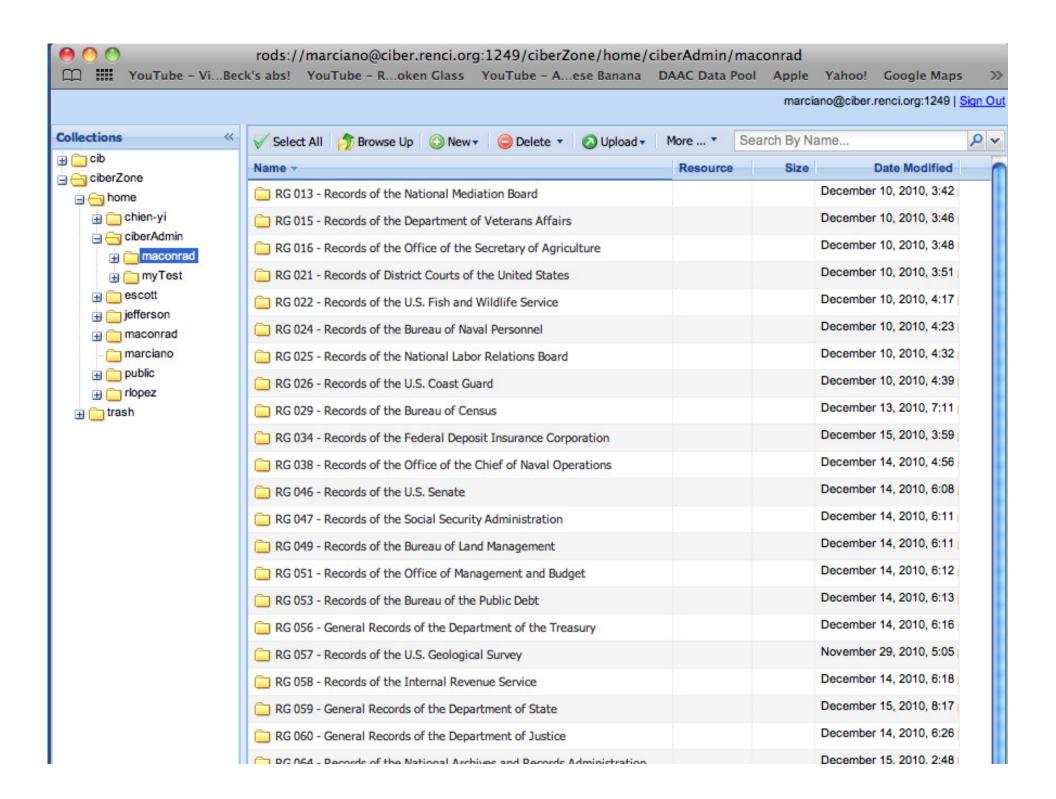
- Large Data Analysis and Visualization
 symposium (co-located with VisWeek 2011) in Providence,
 RI, Sep. 23-25
 - slideshare.net: "A System for scalable visualization of geographic records", Jeff Heard & Richard Marciano
 - Indexing & visually browsing archival records
 - Large archives of geographic records: 100M+
 - CI-BER: CyberInfrastructure for Billions of E-Records
 - Funded by the National Archives / Applied Research through NSF/OCI
 - See: http://ci-ber.blogspot.com/

The CI-BER Project

Purpose: To build and test prototypes for next generation information systems scaling to billions of archival records. These tools should be both applicable within NARA and across agencies.

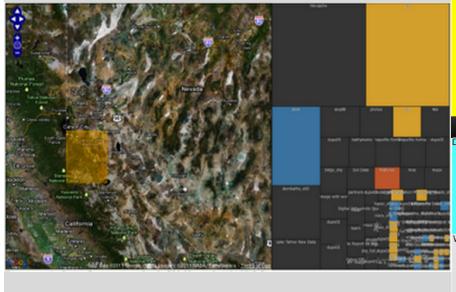
The CI-BER testbed foundation consists of:

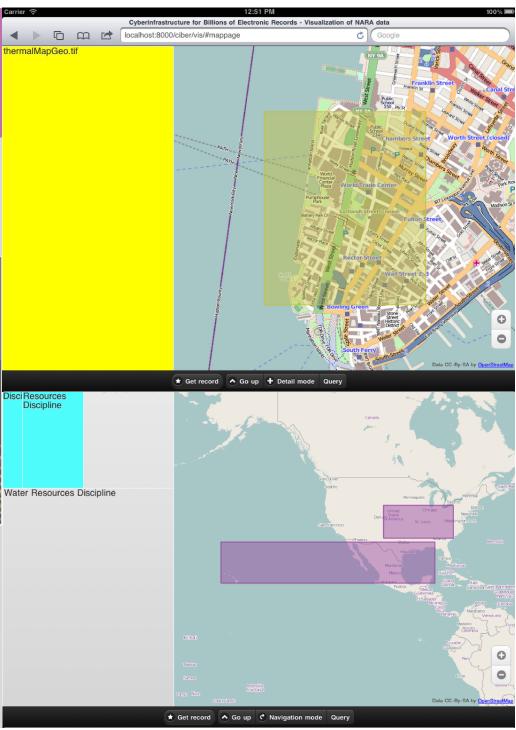
- _κ 7
- **XI TB test collection** includes **7%** million files spread over 133 Record Groups from the US National Archives.
- A centralized **IRODS** data store optimized for retrieval performance which contains all the test collection.
- RENCI's Geoanalytics framework for processing, visualizing, and sharing geographic Big Data.



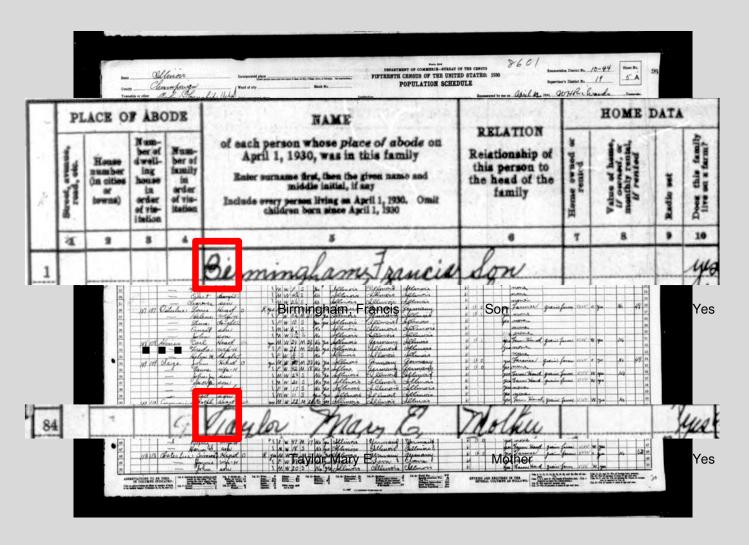
Prototypes

Our prototypes focus on the collection search and browsing tasks.



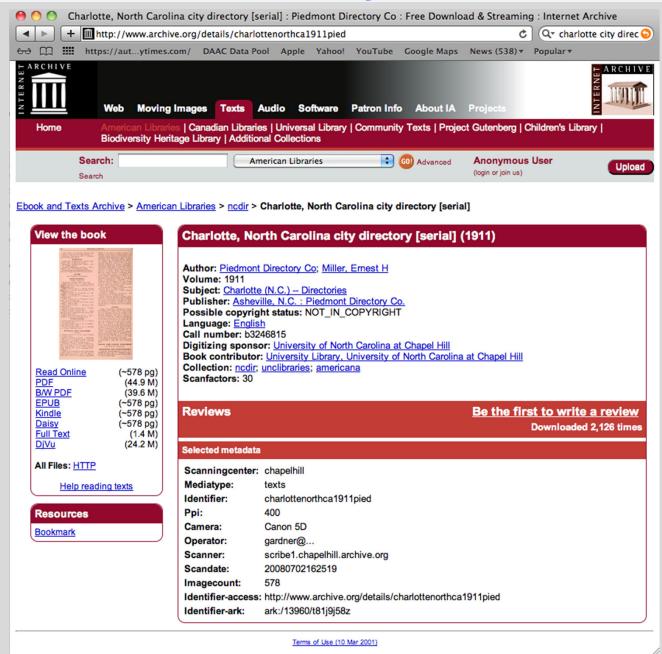


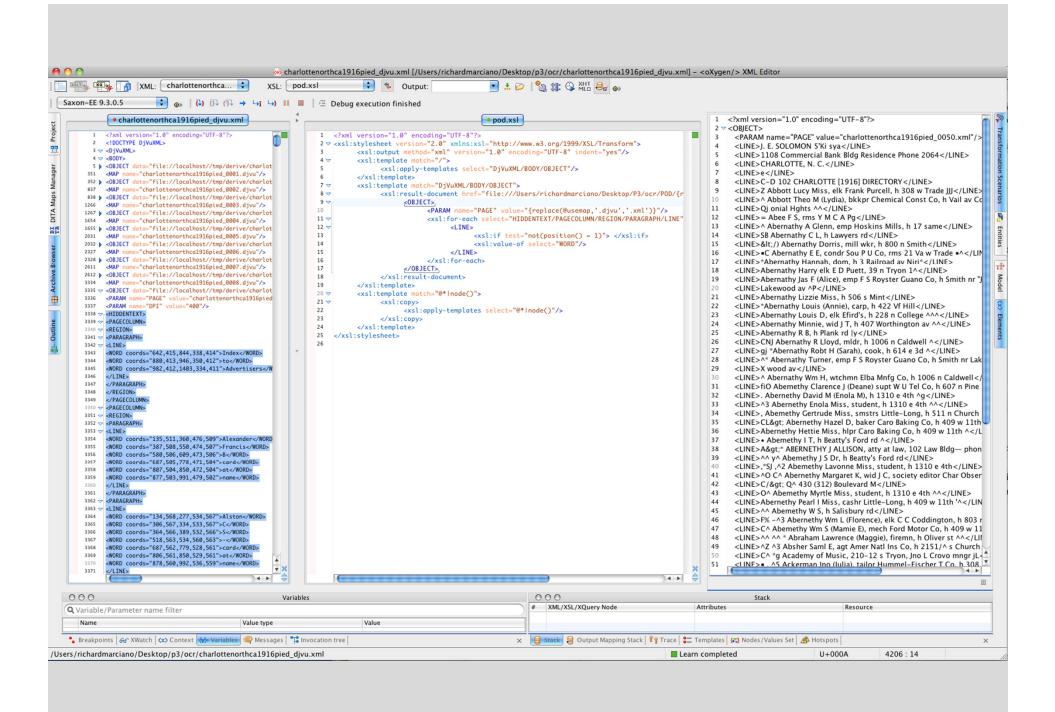
2. 1940 Census Data



http://digitalinnovation.unc.edu/2012/03/16/the-1940-census-as-digital-data/

3. Historical City Directories





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 <LINE>1108 Commercial Bank Bldg Residence Phone 2064</LINE>
 <LINE>CHARLOTTE, N. C.</LINE>
 <LINE>e</LINE>
 <LINE>C-D 102 CHARLOTTE [1916] DIRECTORY</LINE>
 <LINE>Z Abbott Lucy Miss, elk Frank Purcell, h 308 w Trade JJJ</LINE>
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 <LINE>Abernathy Minnie, wid J T, h 407 Worthington av ^^</LINE>
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 <LINE>^3 Abernethy Enola Miss, student, h 1310 e 4th ^^</LINE>
 <LINE>, Abemethy Gertrude Miss, smstrs Little-Long, h 511 n Church ^^</LINE>
 <LINE>CL> Abernethy Hazel D, baker Caro Baking Co, h 409 w 11th "</LINE>
 <LINE>Abernethy Hettie Miss, hlpr Caro Baking Co, h 409 w 11th ^</LINE>
 <LINE>• Abemethy I T, h Beatty's Ford rd ^</LINE>
 <LINE>A>* ABERNETHY J ALLISON, atty at law, 102 Law Bldq— phone 1900 ^</LINE>
 <LINE>^^ y^ Abemethy J S Dr, h Beatty's Ford rd</LINE>
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 <LINE>^^ ^^ * Abraham Lawrence (Maggie), firemn, h Oliver st ^^</LINE>
 <LINE>^Z ^3 Absher Saml E, agt Amer Natl Ins Co, h 2151/^s Church W^</LINE>
 <LINE>C^ *g Academy of Music, 210-12 s Tryon, Jno L Crovo mngr jL</LINE>
 <LINE>■ , ^5 Ackerman Jno (Julia), tailor Hummel-Fischer T Co, h 308 s College
   ZSm</LINE>
 <LINE>CD j^ ACME PLUMBING CO (Inc), plumbing and steam contrs, dealers
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City Directory Historical Attributes

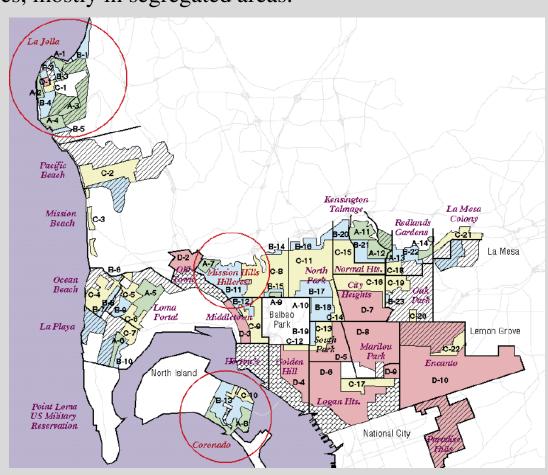
From COVER page					X page	From SUPP. page	P. page From ABBREVS page					From DIRECTORY pages 1 & 2					
				Directory													
City	Publisher	Year	Price	Pos.	Dir.			Abb	reviations		v	Race	Married Num. of Columns		Header Sep.	Other	
										(Street) &							
							Jobs	Given Names	Special	Suburb	Firm						
Charlotte	Piedmont Directory Co.	1911	\$6	1	Yes		X	Olven Hames	Special			•		1	DIRECTORY		
Charlotte	Piedmont Directory Co.	1916	\$7		Yes		X					•		1	DIRECTORY		
												Dir. of white people					
Concord	The Interstate Directory Co.	1902	\$3	1			X					Dir. of colored people		1	DIRECTORY	Name cont. w	
Concord	Piedmont Directory Co.	1908	\$4	1	Yes		X					*		1	DIRECTORY		
Concord	Piedmont Directory Co.	1913-1914	\$4	1	Yes		X					*		1	DIRECTORY		
Concord	Piedmont Directory Co.	1916-1917	\$5	1	Yes		X					*		1	DIRECTORY		
Concord	Piedmont Directory Co.	1920-1921	\$6	1	Yes		X					*		1	DIRECTORY		
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Dunn	Chas. S. Gardiner	1918-1919		1	No		X					•		1	DIRECTORY		
		1 1										Dir. of white people					
Durham	N.A. Ramsey, Publisher	1892		1	No		X					Dir. of colored people			DIRECTORY		
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Greater Durham	Samuel L. Adams	1902	\$5	1	No		X				ļ	4 Dirs. of colored people		1		Name cont. w	
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Gastonia	Piedmont Directory Co.	1910-11	\$4	1	Yes		X					•		1	DIRECTORY		
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Greensboro	Hill Directory Co., Inc.	1926	\$11	1	Yes		х							2	odd pages: GREENSBORO CITY DIRECTORY		
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Greensboro	Hill Directory Co., Inc.	1928	\$14	1	Yes		х	х				©		2	odd pages: GREENSBORO CITY DIRECTORY		
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Greensboro	Hill Directory Co., Inc.	1929	\$14	1	Yes		X	х				©		2	pages: GREENSBORO CITY DIRECTORY		
Greensboro	Hill Directory Co., Inc.	1931	\$15	1	Yes		X	X	X			0		2	Ad. Box		
Greensboro	Hill Directory Co., Inc.	1934	\$15	1	Yes		^	X	x			0		2	Ad. Box		
Greensboro	Hill Directory Co., Inc.	1934	\$15 \$15	1	Yes		X	X	X			0		2	Ad. Box		
Greensboro	Hill Directory Co., Inc.	1937	\$15	1	Yes		X	X	X			0		2	Ad. Box		
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Greensboro	Hill Directory Co., Inc.	1943	\$20	1	Yes		X	X	X	X	X	©		2	Ad. Box	Name cont. w. "	
Greensboro	Hill Directory Co., Inc.	1945	\$20	1	Yes		X	X	X	X	X	©		2	Ad. Box	Name cont. w. "	
Greensboro	Hill Directory Co., Inc.	1947-48	\$25	1	Yes		X	X	X		ļ	© ©		2	Ad. Box	Name cont. w. "	
Greensboro	Hill Directory Co., Inc.	1949	\$25	1	Yes		X	X	X			U		2	Ad. Box	Name cont. w. "	
Greensboro	Hill Directory Co., Inc.	1954	\$40	1	No		X	X	X		ļ			2	Ad. Box	Name cont. w	
Greensboro	Hill Directory Co., Inc.	1958	\$45	1	No		X	X	X		ļ			2	Ad. Box	Name cont. w	

4. Historical Residential Segregation Data

"Between 1932 and 1964, FHA and VA (through the GI Bill) financed over \$120 billion of new housing, and less than 2% of this real estate was available to nonwhite families, mostly in segregated areas."

"The Home Owners' Loan Corp. (HOLC) created in June 1933, introduced the long-term mortgage in practice today. HOLC systematized appraisal methods across the nation and initiated the practice of redlining."

ALL QUOTES HERE FROM: "The Possessive Investment in Whiteness – How White People Profit from Identity Politics", George Lipsitz, Temple University Press, June 1998.



Through their appraisal and redlining practices, HOLC and FHA institutionalized exclusion and contributed to the fragmentation of communities

Big Heterogeneous Data (with Duke)



Mapping historical residential segregation in the US

Researching the cyberinfrastructure implications of supporting large scale content based indexing of highly heterogeneous digital collections potentially embodying non-uniform or sparse metadata architectures...

Intellectual Merit:

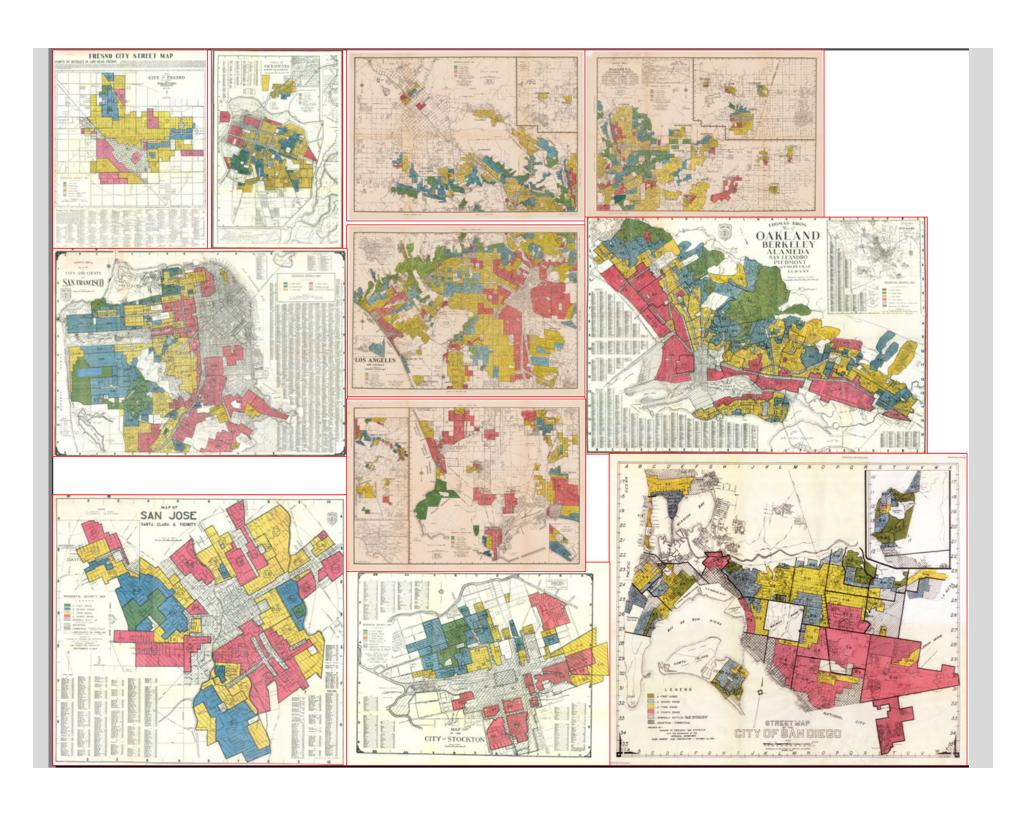
Demonstrating the creation of national collections through automation and citizenscientist crowdsourcing efforts is the focus of this task.

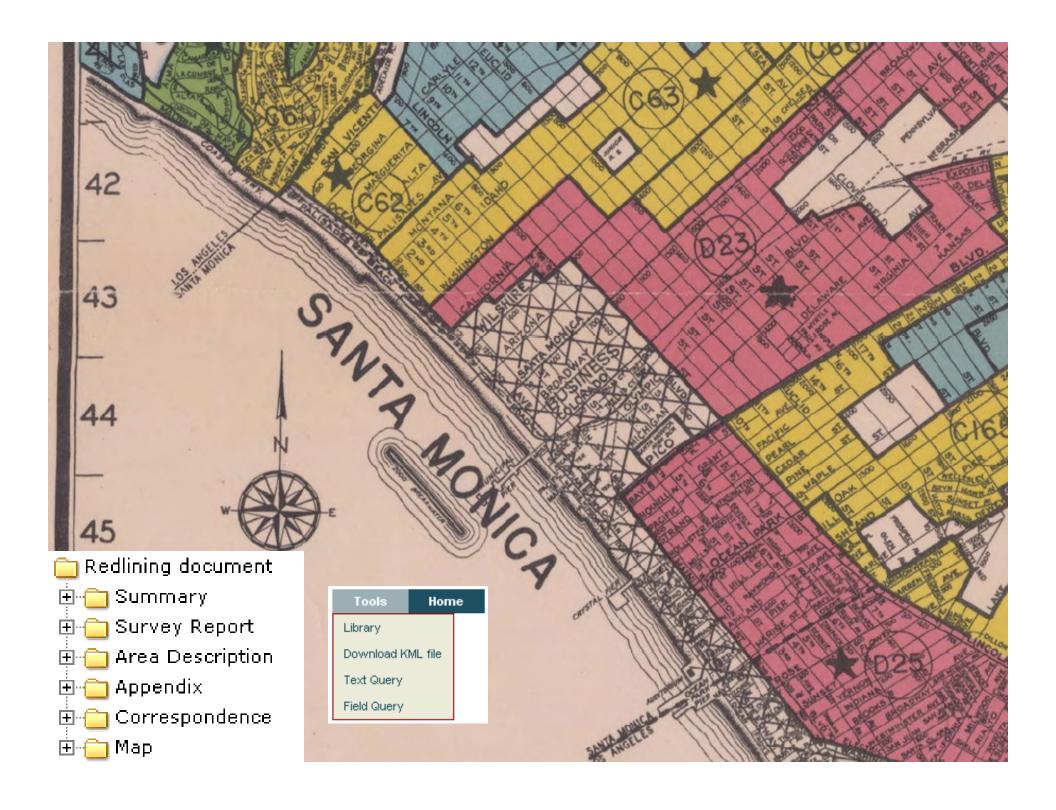
Broader Impacts:

This case-study will bring heterogeneous content from a variety of sources: census, economic, historic, planning, insurance, financial, and scientific.

Outcomes:

Worfklows & Visual prototype





NS	FORM-	8
8-	26-37	

AREA DESCRIPTION

1.	NAME OF CITY Asheville, N. C. SECURITY GRADE D AREA NO. 1
2.	DESCRIPTION OF TERRAIN. Rolling to mountainous on Western side and Eastern side.
3.	FAVORABLE INFLUENCES. Schools - churches in area - all city conveniences - Adequate transportation.
4.	DETRIMENTAL INFLUENCES. Industrial plants along railroad tracks on western side of area. Cheap construction, also filling stations and some cheap stores on Biltmore Road. Also many business places in the part nearest main business district.
5.	INHABITANTS: Mechanics - factory workers- a. Type Common laborers ; b. Estimated annual family income \$300 - 1500
	c. Foreign-born None; %; d. Negro Yes; 75 %; (Nationality)
	e. Infiltration of Negro gradually ; f. Relief families Many ;
	g. Population is increasing; decreasing; static. yes

AREA DESCRIPTION

Security Map of LOS ANGELES COUNTY

. I	POPULATION: a. Increasi	ng Slowly Decreasin	static
l	b. Class and Occupation Jewi	sh professional & business m	men, Mexican laborers, WPA
	c. Foreign Families 50 %	ers, etc. Income \$700 to \$2 Nationalities Russian, Polish & F	Armenian Jews. d. Negro 1 %
6		Slavs, Greeks, American Mexi	icans, Japanese and Italians ments increasing.
. I	BUILDINGS:	PREDOMINATING 40 %	OTHER TYPE %
4	a. Type and Size	4,5 & 6 rooms	
l	b. Construction	Frame and stucco	Apts. & other multi- femily 20% Old 7 rooms and up 10%
•	c. Average Age	20 years	
•	d. Repair	Poor to fair	
6	e. Occupancy	97%	Approximation and the second s
j	f. Owner-occupied	20%	
ŧ	g. 1935 Price Bracket	\$2000-3250 %change	\$ %change
1	h. 1937 Price Bracket	\$2250-3500 %	\$ %
i	i. 1939 Price Bracket	\$2250-3500 %	\$ %
j	j. Sales Demand	Poor	delication and a surface and a
- 1	k. Predicted Price Trend (next 6-12 months)	Static	,
ı	l. 1935 Rent Bracket	\$22.50-35.00 %change	\$ % change
1	m. 1937 Rent Bracket	\$25.00-40.00 %	\$ %
,	n. 1939 Rent Bracket	\$25.00-40.00 %	\$
C	o. Rental Demand	Fair	
1	p. Predicted Rent Trend (next 6-12 months)	Static \$400	00-\$5500
. 1	NEW CONSTRUCTION (pa	ust yr.) No. 25 Type & Price 5 ar	nd 6 roomsHow Selling Owner built
. (OVERHANG OF HOME PE	ROPERTIES: a. HOLC	B. Institutions Many
			b. Institutions Few
. 1	MORTGAGE FUNDS:L	imited 7. TOTAL TAX RAT	TE PER \$1000 (193) \$52.80
. 1	DESCRIPTION AND CHAR	ACTERISTICS OF AREA: lside with generally favorab Land improved 90%. This is	

Neighborhood description for: Boyle Heights

- * Area D-53
- * "Red" area

"Boyle Heights remained one of the most heterogeneous neighborhoods in the city for decades and it was a center of Jewish, Mexican and Japanese immigrant life in the early 20th century, and also hosted large Yugoslav and Russian populations."

Wikipedia, 6/17/2011

9. LOCATION Boyle Heights SECURITY GRADE 4th AREA NO. D-53 DATE4-19-39

CAUTION: This area is currently affected in whole or in part by an Ad valorem
Tax District. Individual properties should be checked for this hazard.

AREA DESCRIPTION

Security Map of LOS ANGELES COUNTY

1.	PO	PULATION:	a.	Increasing	Slowly	Decreasing		Static
	b.	Class and Occi	ıpati				Mexican labore	rs, WPA
	c.	Foreign Familie	s5	0 % Nationalitie		lish & Armer	ian Jews, d.	
	ε.	Shifting or Infil	tratio	n Slavs, G			Japanese and l	talians

8. DESCRIPTION AND CHARACTERISTICS OF AREA:

Terrain: Level to hillside with generally favorable grades and comparatively few construction hazards. Land improved 90%. This is a "melting pot" area and is literally honeycombed with diverse and subversive racial elements. It is seriously doubted whether there is a single block in the area which does not contain detrimental racial elements, and there are very few districts which are not hopelessly heterogeneous in type of improvement and quality of maintenance. Schools, churches, trading centers, recreational areas and transportation are all conveniently available. Many of the thoroughfares are arterial in character and constitute traffic hazards. This area is wholly in the City of Los Angeles. It is hazardous residential territory and is accorded a general medial red grade, although in many parts slum conditions prevail. The Federal Government, in conjunction with the city government are undertaking a slum clearance project covering 41 areas in the extreme northeast part of the area.

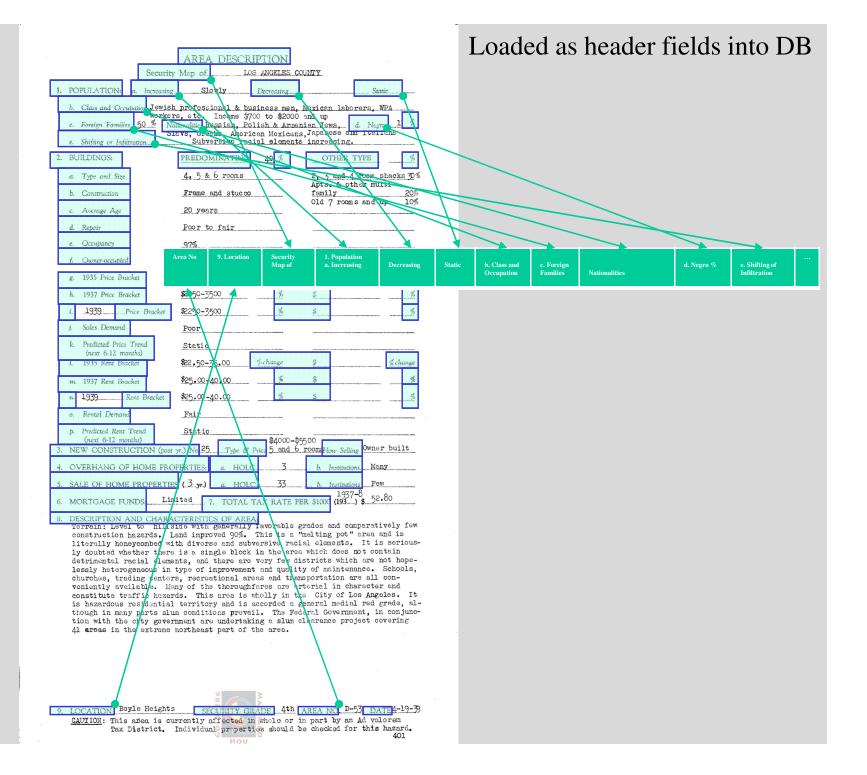
9. LOCATION Boyle Heights SECURITY GRADE 4th AREA NO. D-53 DATE4-19-39

OCR Technical Details

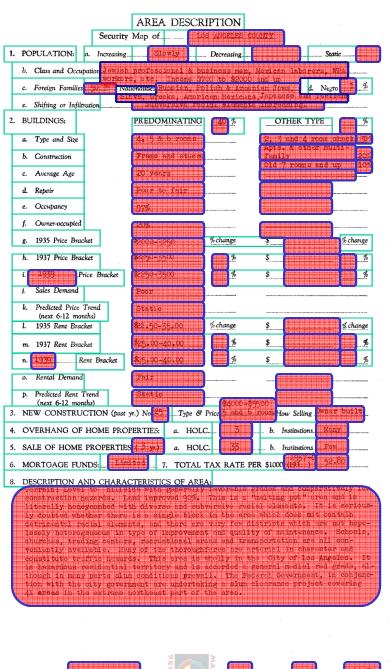
Fixed Text

	AREA DESCRIPTION										
	Map of LOS ANGELES	COUNTY									
1. POPULATION: a. Increasing	Slowly Decreasing	Static									
b. Class and Occupation Jewish worker	professional & business me s, etc. Income \$700 to \$20	n, Mexican laborers, WPA									
c. Foreign Families 50 % No	tionalitie: Russian, Polish & Ar avs, Greeks, American Mexic	menian Jews. d. Nepro 1 %									
e. Shifting or Infiltration.	Subversive racial eleme	nts increasing.									
2. BUILDINGS:	PREDOMINATING 40 %	OTHER TYPE %									
a. Type and Size	4,5 & 6 rooms	2, 3 and 4 room shacks 30%									
b. Construction	Frame and stucco	Apts. & other multi- family 20%									
c. Average Age	20 years	Old 7 rooms and up 10%									
d. Repair	Poor to fair										
е. Оссирансу	.97%	ALCO MANAGEMENT OF THE PROPERTY OF THE PROPERT									
f. Owner-occubied 20%											
g. 1935 Price Bracket	\$2000_3250 %change	\$ % change									
h. 1937 Price Bracket	\$2250-3500 %	\$ \$									
i. 1939 Price Bracket	\$2250-3500 %	\$ 5									
j. Sales Demand	Poor										
k. Predicted Price Trend	Static										
(next 6-12 months) i. 1935 Kent Bracket	\$22.50-35.00 %change	\$ \$ \$ \$ change									
m. 1937 Rent Bracket	\$25.00-40.00 %	s g									
n. 1939Rent Bracket	\$25.00-40.00 %	s g									
o. Rental Demand	Fair										
p. Predicted Rent Trend	Static										
(next 6-12 months) 3. NEW CONSTRUCTION (past	94000 yr.) No 25 Type & Price 5 and	-\$5500 6 rooms-low Selling Owner built									
4. OVERHANG OF HOME PRO		b. Institutions Many									
5. SALE OF HOME PROPERTIE											
		1937-8 0-									
		1 ER \$1000 (195) \$									
8. DESCRIPTION AND CHARA- Terrain: Level to hills	CTERISTICS OF AREA: ide with generally ravorable	grades and comparatively few melting pot" area and is									
construction hazards. L	and improved 90%. This is the diverse and subversive r	a "melting pot" area and is acial elements. It is serious-									
ly doubted whether there	is a single block in the a	rea which does not contain									
lessly heterogeneous in	type of improvement and qual	districts which are not hope- lity of maintenance. Schools,									
	s, recreational areas and to my of the thoroughfares are										
constitute traffic hazar	ds. This area is wholly in	the City of Los Angeles. It									
is hazardous residential though in many parts slu	territory and is accorded a	n general medial red grade, al- Federal Government, in conjunc-									
tion with the city gover	nment are undertaking a slu	n clearance project covering									
dr groge III one evoleme	northeast part of the area.										
Bowle Heights	A A	D. 57									

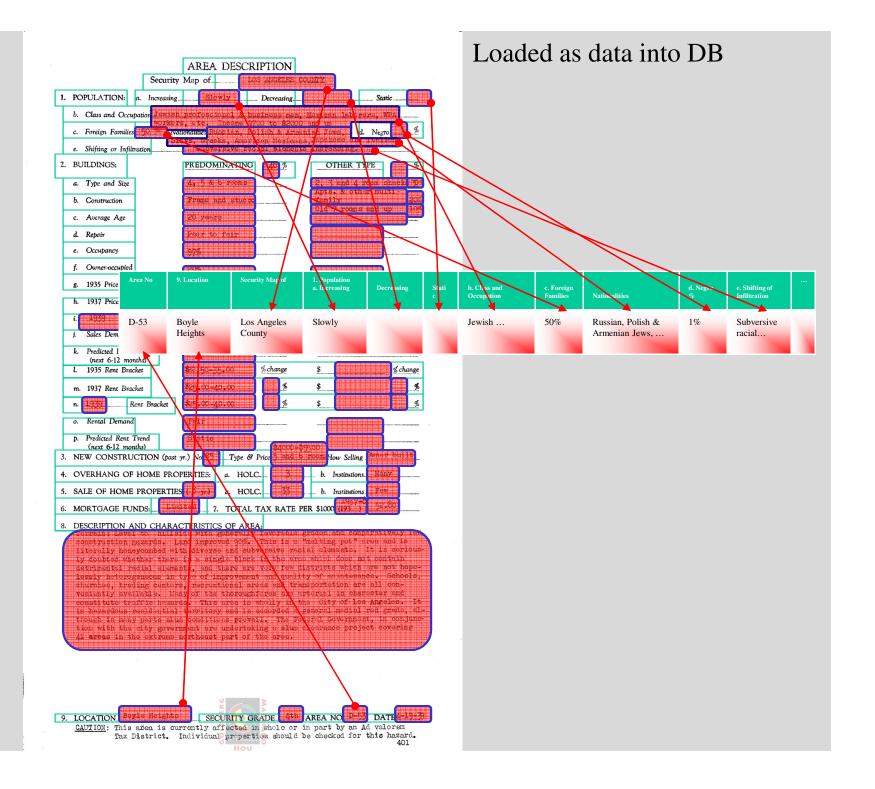
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Variable Text



Variable Text

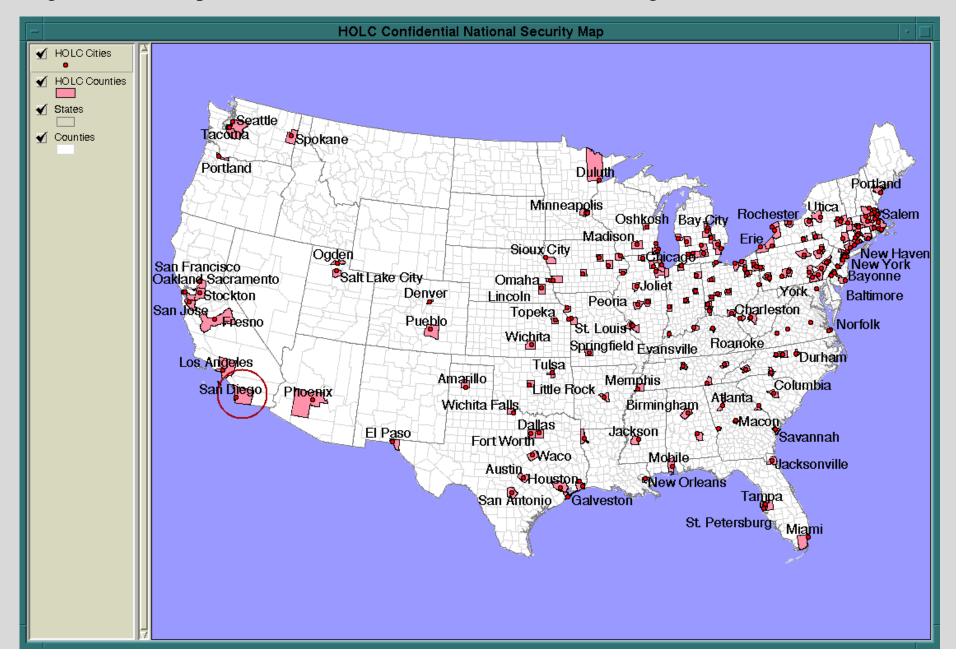


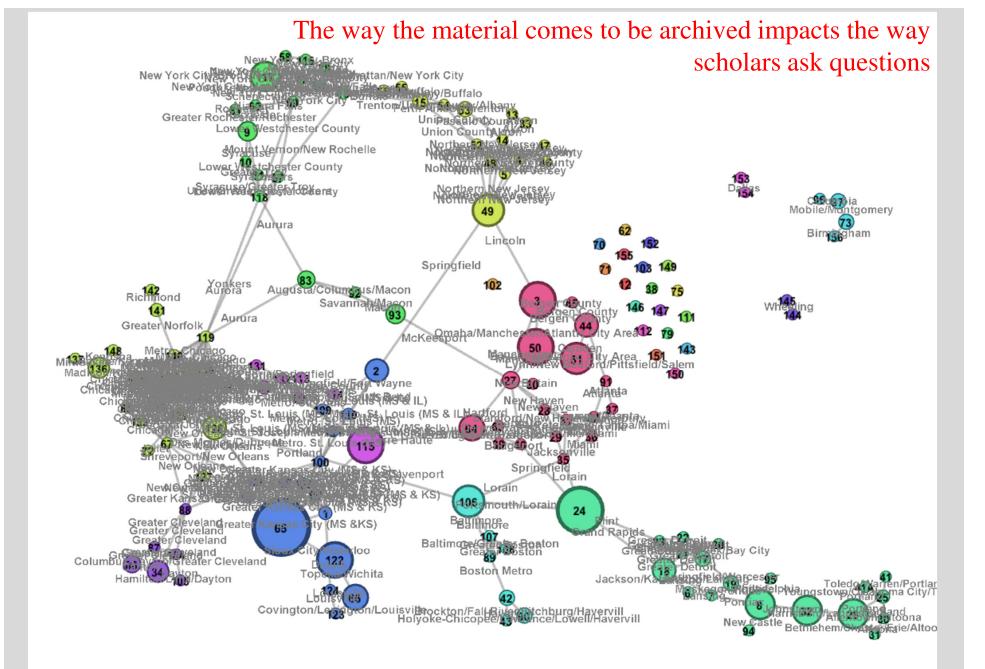
Process repeated for all 420 neighborhood descriptions of L.A. County:

	Area No	9. Location	Security Map of	1. Population a. Increasing	Decreasing	Stati c	b. Class and Occupation	c. Foreign Families	Nationalities	d. Negro %	e. Shifting of Infiltration	
	A-1	Encino	Los Angeles County	Rapidly			Motion picture stars,	0%	-	0%	None apparent	
A-	-											
	A-60	South Palos Verdes	Los Angeles County	Rapidly			Professional	0%		0%	None apparent	
	B-1	San Fermando	Los Angeles County	Rapidly			Local merchants	Few	None subversive	0%	None apparent	
B-{ ************************************	-											
	B-122	San Pedro	Los Angeles County	Moderately			Professional	0%		0%	None apparent	
	C-1	Canoga Park	Los Angeles County	Slowly			Agricultural workers	Few	None subversive	0%	Mexicans 	
C-												
	C-167	Mar Vista	Los Angeles County	Rapidly			Skilled artisans	0%	-	0%	None apparent	
	D-1	San Fernando	Los Angeles County			Yes	Agricultural, Cannery	80%	Mexican predominating	0%	None apparent	
\mathbb{D}	D-53	Boyle Heights	Los Angeles County	Slowly			Jewish	50%	Russian, Polish & Armenian Jews,	1%	Subversive racial	
	D-71	Wilmingto n	Los Angeles County			Yes	Small tradesmen,	25%	Japs and Mexicans	2%	Subversive racial	
-m-ca.no												

National Redlining Collection project

Digital Scholarship Lab @ U. of Richmond (Rob Nelson) and Digital Innovation Lab @ UNC

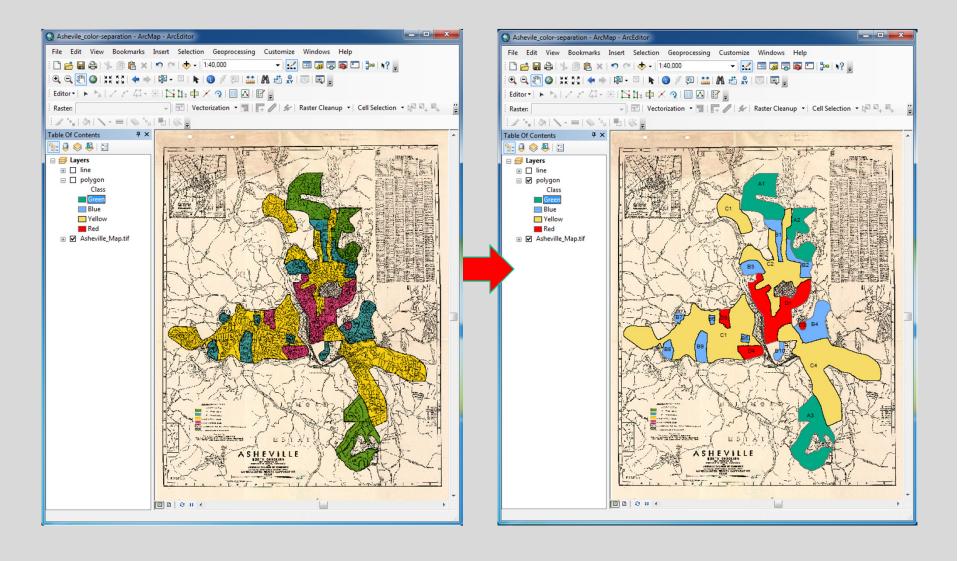




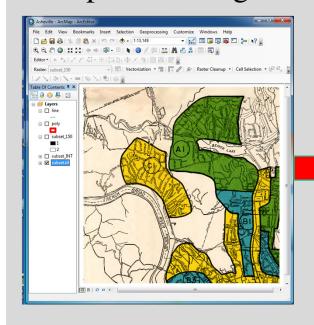
Boxes (129) & location of city files @ NARA II in College Park, MD

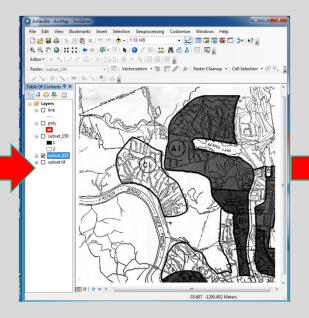
Using remote sensing methodologies: "OCR for images"

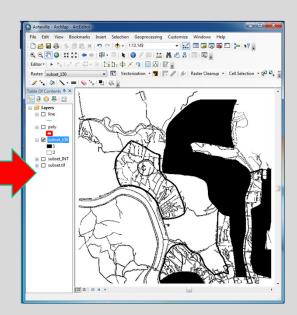
* Paper to Digital Maps:

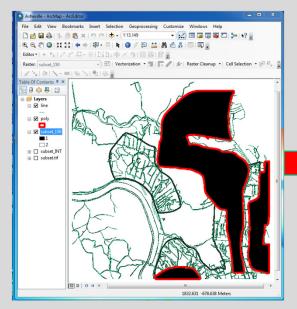


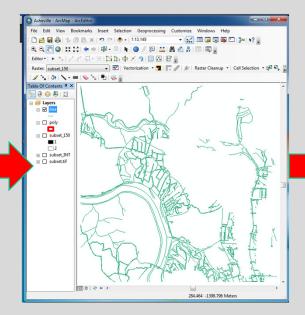
* Map Processing at Scale:

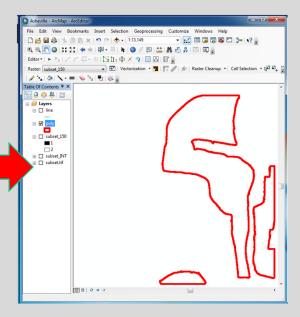




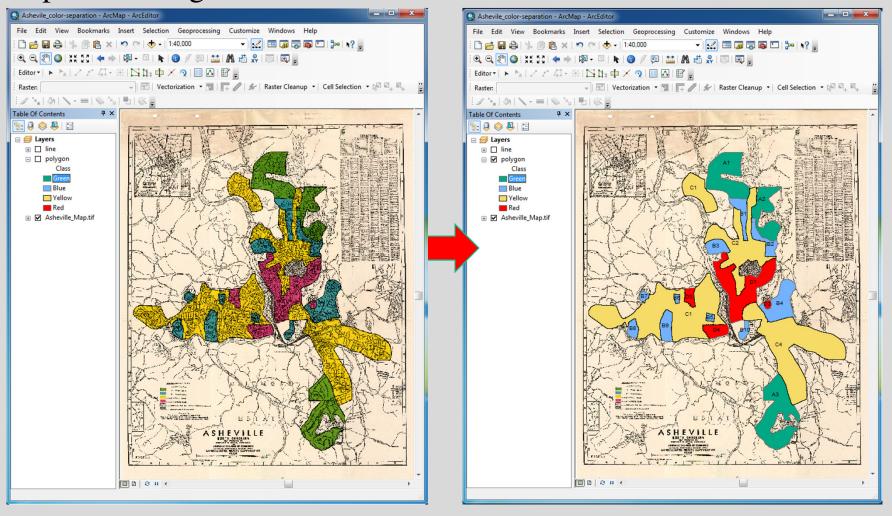






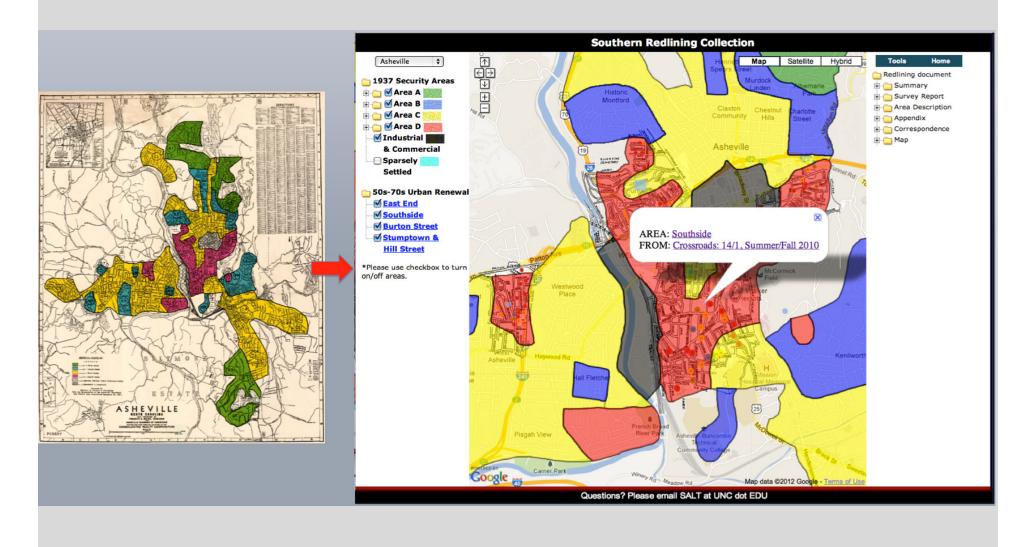


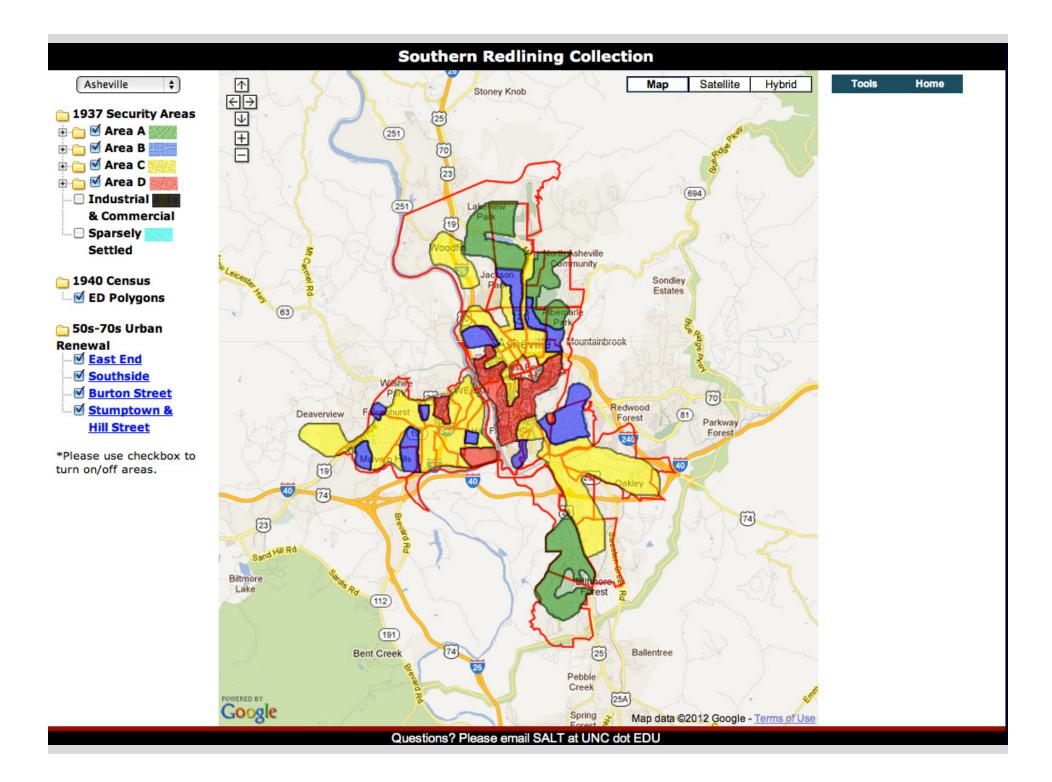
* Map Processing at Scale:

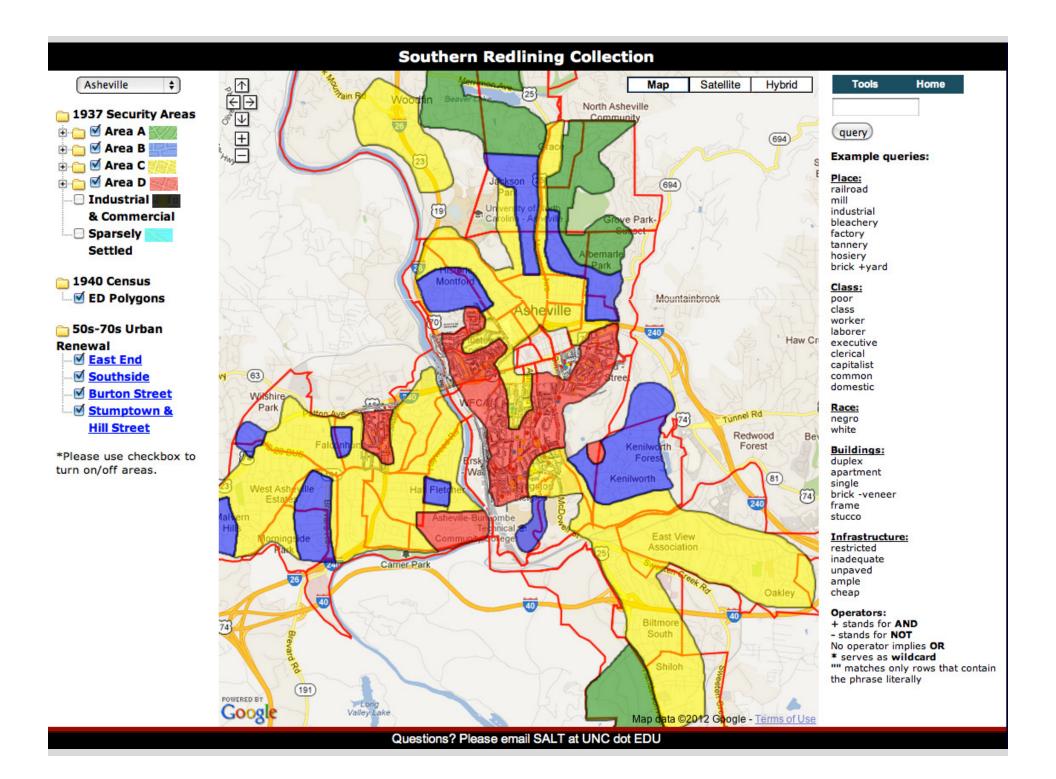


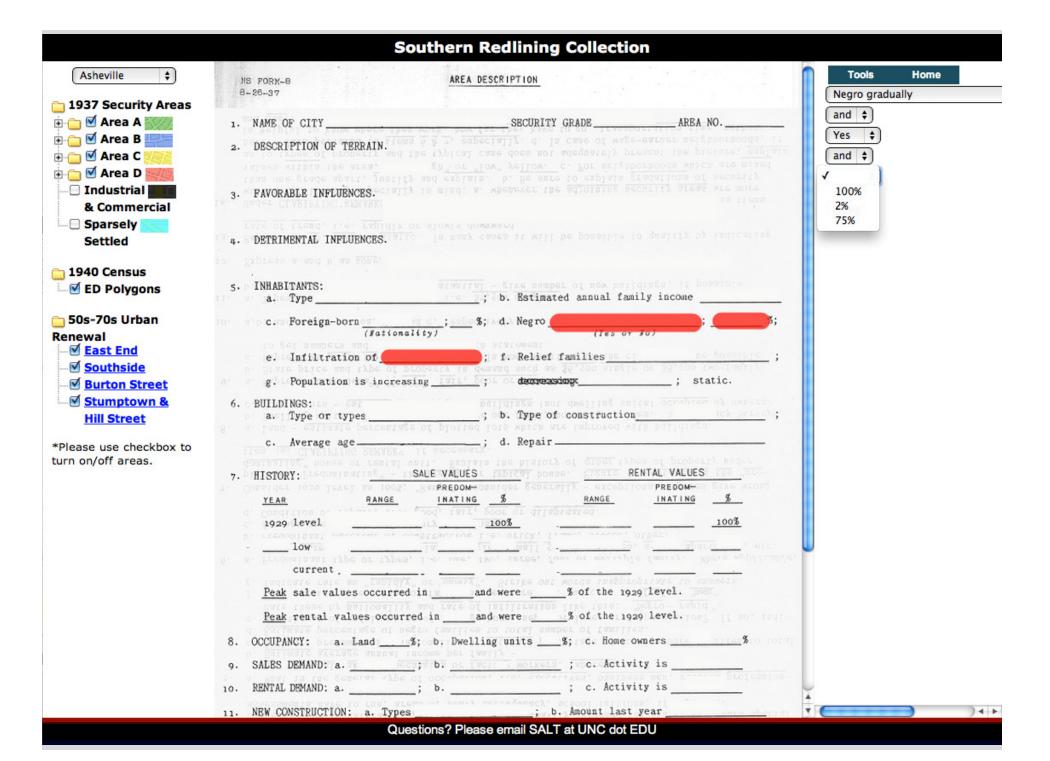
- * Other Approaches:
 - Multivariate Supervised Classification (remote sensing):
 - Image classification (ArcGIS 10 / ERDAS Imagine 2011)

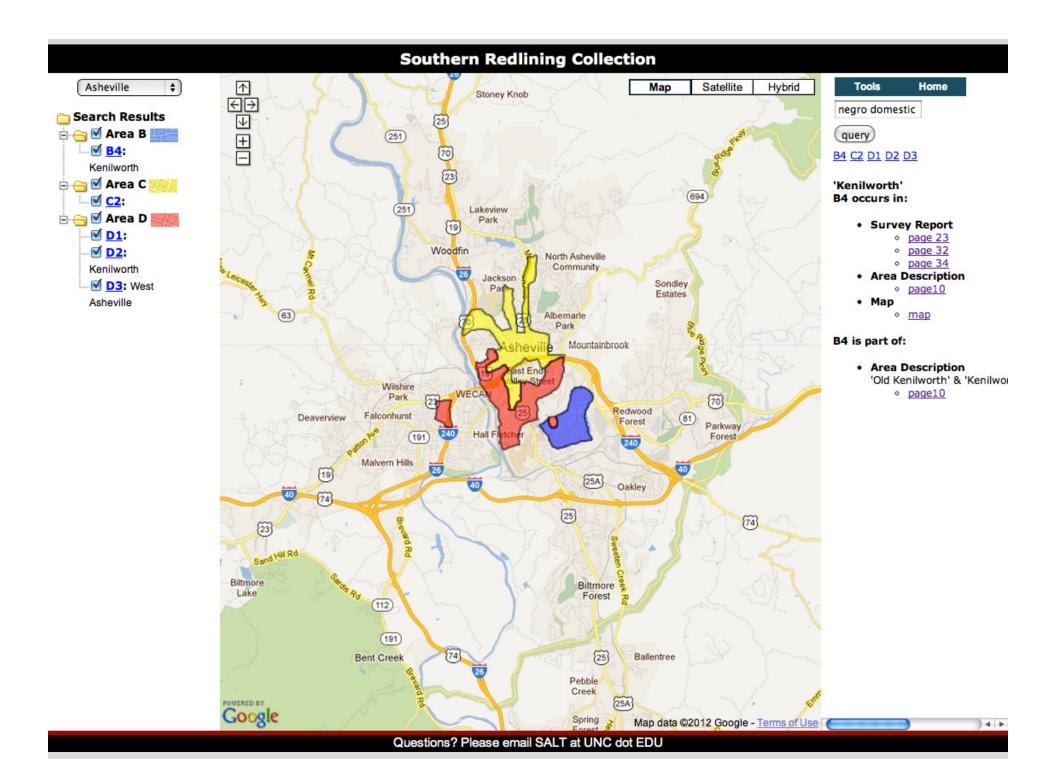
Developing research interfaces that allow the asking of new questions:

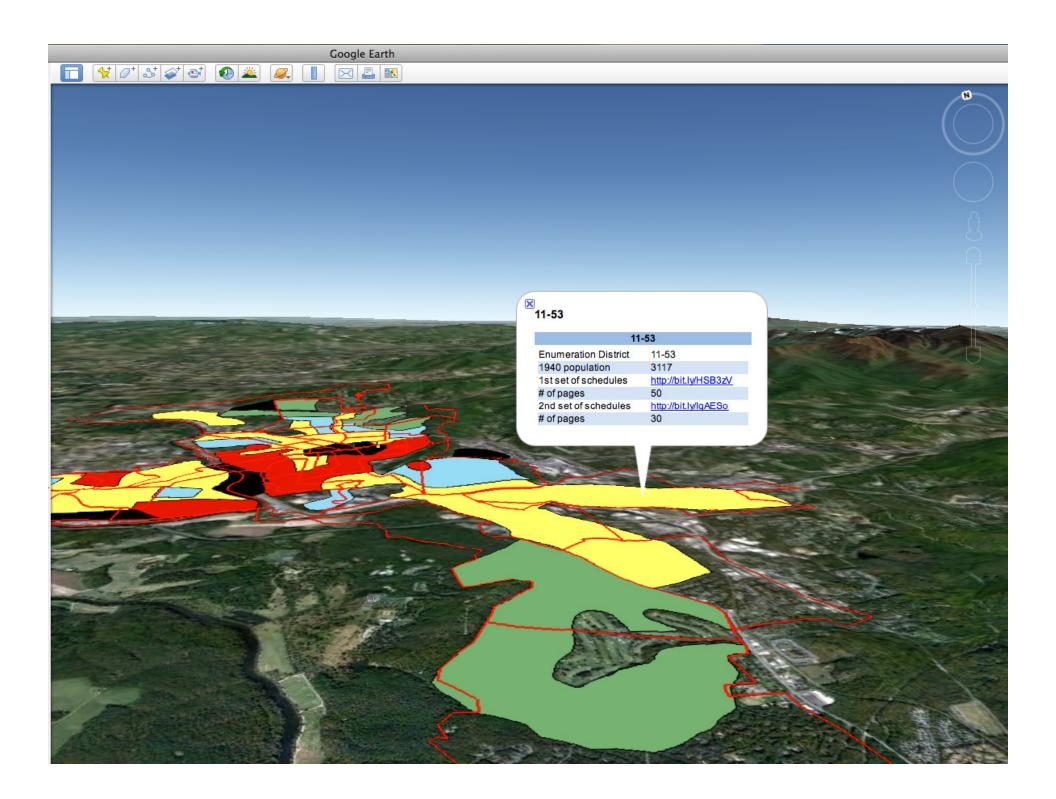








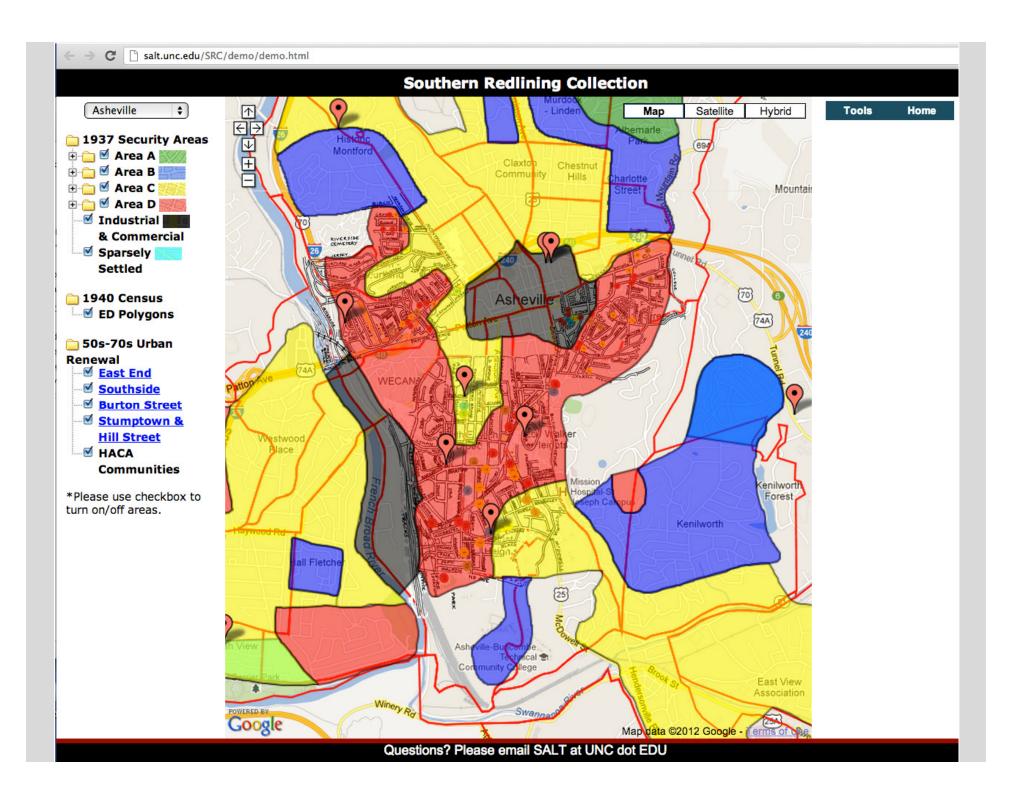




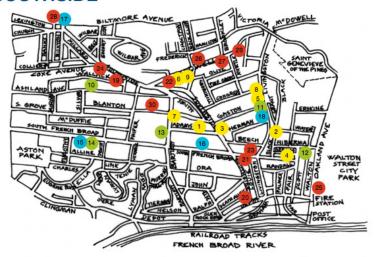


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	1	1 1 1	Name of each person whose usual place of residence on April 1, 1940, was in this household.	-		Park tells.	Re a person with, on April 10 1 10 1 1 10 10 10 10 10 10 10 10 10	ill, was living in the same bears as at a rate living in a sufficient brown both in writing Colo. 18, 18, and 20 blands, to but	to our only or			private of the contract of the	Anchor Contract of Contract of State of	not, District, 430 Class of	of or with a just "Tes"	A S December 13, 100	4 1
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Tip: Clicking and dragging the image will allow you to view more of it! More useful tips.



SOUTHSIDE



CHURCHE

- 1. Bethel 7th Day Adventist Church 51 Adams St.
- Beulah Chanel Holiness Church 111 Black St.
- 3. Church of God in Christ 292 Southside Ave.
- New Bethel Baptist Church 508 S. French Broad Ave.
- 5. New Mount Olive Baptist Church 148 Livingston St.
- 6. St. John's Church of God 100 Southside Ave.
- 7. St. Luke's AME Zion Church 40 Bartlett St.
- Tabernacle Missionary Baptist Church Corner of Livingston and Congress Streets
- Worldwide Baptist Tabernacle Church 85 Choctaw St.

SCHOOLS

- Asheland Ave. School (Closed 1949) 190 Asheland Ave. Phyllis Wheatley YWCA moved here
- Livingston St. Elementary School 133 Livingston St.
- 12. School of St. Anthony of Padua 56 Walton St.
- 13. Stewart's School of Beauty Culture 55 Bartlett St.
- South French Broad High School 197 S. French Broad Ave.

COMMUNITY ORGANIZATIONS

- 15. YWCA 195 S. French Broad Ave.
- 16. Elks Club 382 S. French Broad Ave.
- 17. Asheville Colored Hospital 185 Biltmore Ave.
- 18, W.C. Reid Community Center 133 Livingston St.

BUSINESSES

- 19. The Southern News 121 Southside Ave.
- 20. James-Keys Hotel 409 Southside Ave.
- Allen-Birchette Funeral Home 350 Southside Ave.
- Conley's Barber Shop 187 Southside Ave.
- 23. Fair Grocery 452 S. French Broad Ave.
- 24. Sportsman Club 105 Southside Ave.
- 25. Walton St. Park and Pool End of Depot St.
- 26. McMorris Amoco Service 71 McDowell St.
- Rabbit's Tourist Court & Restaurant 110 McDowell St.
- 28. Jesse Ray Funeral Home 185 Biltmore Ave.
- 29. Southland Drive-In 127 McDowell St.
- 30. Mae McCorkle's Beauty Shop 87 Blanton St.

Southside/East Riverside: Lost — In the Name of Progress

Priscilla Ndiave, Former Resident and Researcher of Southside Neighborhood

BY THE TIME of urban renewal, Southside was the city's premier black business district, surrounded by a large residential neighborhood. At over four hundred acres, the urban renewal project here was the largest in the southeastern United States. The scale of the devastation here was unmatched.

"In the East Riverside area," said the [late] Reverend Wesley Grant, "we have lost more than 1,100 homes, six beauty parlors, five barber shops, five filling stations, fourteen grocery stores, three laundromats, eight apartment houses, seven churches, three shoe shops, two cabinet shops, two auto body shops, one hotel, five funeral homes, one hospital, and three doctor's offices."

The Reverend Grant's church still stands on Choctaw Street.

Multiple perspectives, lack of knowledge, much confusion, and discouraged and bitter individuals are all entwined as spiders in a web: any way you touch it, it trembles.



Priscilla Ndiaye. Photo courtesy Story Point Media.

One perspective on this transformation sees families uprooted, relocated, and scattered; a community destroyed; a vibrant entrepreneurial business world shut down; and history fragmented, altered, and lost. A very different perspective sees economic benefits for the whole city and better living conditions for neighborhood residents.

Asheville's formal history was being made while Asheville's African American history was lost - in the name of progress. In 2008, for the first time an effort was made to collect this history through discussions and interviews [funded] by the YMI [Cultural Center] and the "Twilight of a Neighborhood" project.



Dewitt Street c. 1960. (L) Louvenia Booker. Center-Conaria Booker. Courtesy North Carolina Collection, Pack Memorial Public Library.

The L-A-N-D

Robert Hardy, Southside Neighborhood Association

Oh — But the Land — But the L-A-N-D! The community breakdown: the loss of businesses, neighbors, continuity, sanguinity, customs, culture, social norms, and family displacement.

Can one truthfully say there were no benefits? No! However, the benefits received when contrasted are a disproportionate negative to that which was gained!

For the most part, the landowners were either elderly and/or sick; more times than not the gains and homes were obscured and/or lost due to the eroded economic base and failing subsequent infrastructure. Purchased at a give-away price, these properties were resold for sums unattainable by the descendants of the original owners.



Southside c. 1968. Photo by Andrea Clark. Courtesy Andrea Clark Collection, Pack Memorial Public Library.

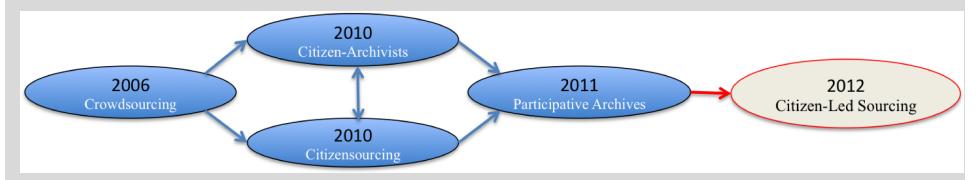
The resulting "fiasco" which we are now living is perpetual poverty for the descendants and gentrification of their land.

Map by Betsy Murray, Archivist, Pack Memorial Public Library. Based on a 1950 map of Asheville. Locations are approximate.

10 NORTH CAROLINA HUMANITIES COUNCIL CROSSROADS Summer/Fall 2010 111

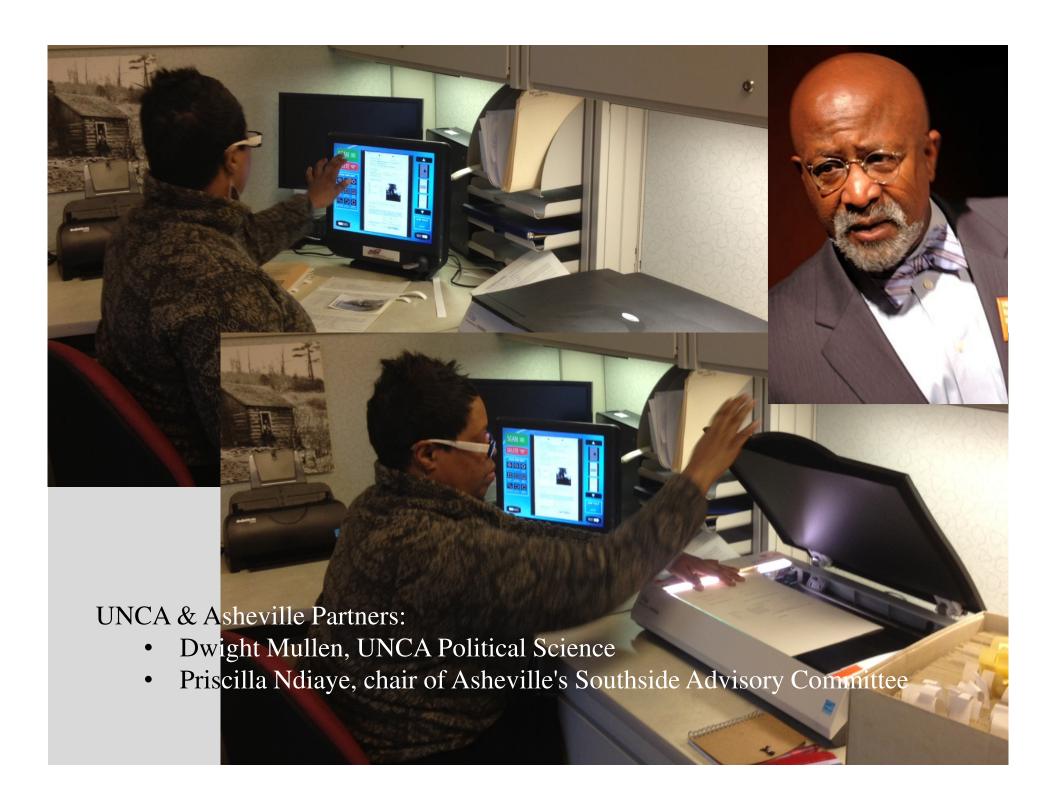
"Public Scholarship"

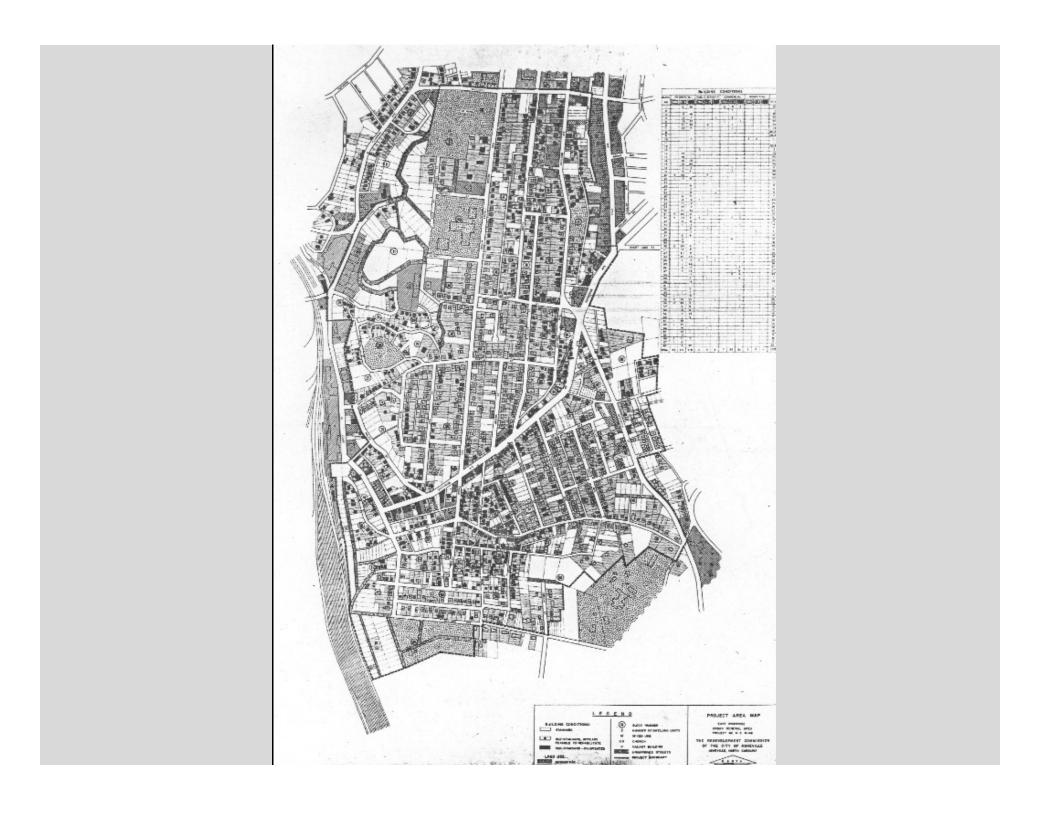
Kathy Woodward, UW Simpson Center for the Humanities



From Crowdsourcing to Citizen-led Sourcing

- University of North Carolina Asheville (UNCA): staff (provost, head librarian, head of special collections, library staff, departments of computer science / history / political science), centers (National Environmental Modeling and Analysis Center / Center for Diversity Education), and students
- Community-based development organizations (Green Opportunities Corps, Asheville Design Center)
- Neighborhood community group leaders and residents (Southside, Burton Street, East End)
- City of Asheville officials (Housing Authority of the City of Asheville, Planning & Development Department, West Asheville Public Library, Chamber of Commerce)
- County (head of Buncombe County Register of Deeds, Land-Of-Sky Regional Council)
- Other groups including the North Carolina Humanities Council, Mountain Housing Opportunities Inc.
- "Twilight of a Neighborhood: Asheville's East End, 1970" project. This project examined the process and aftermath of urban renewal and collected voices of residents, after the 2007 transfer of records to UNC Asheville. We have secured support and commitment from the community groups relevant to tackling this project.
- Asheville's African-American Community Historical Bus Tour, June 19, 2012 (35 people)





ANTHONY REDMOND

ATTORNEY AT LAW

жинккижжениюмимик Р. О. Вох 7205

ASHEVILLE, N. C.

REPORT ON TITLE FOR:

REDEVELOPMENT COMMISSION OF THE CITY OF ASHEVILLE Records of Buncombe County, N. C.

> N. C. R-48 Block 1, Parcel 2 198 & 198 Hilliard

TITLE VESTED IN. Amelia K. Candler, Eva K. Clederas, and Steve Kalogerakis

By the following instrument:

Bessie S. Kalogerakis

Will

TO

Amelia K. Candler, Eva K. Clederas, Steve Kalogerakis

Registered:

Book BBBB

LEGAL DESCRIPTION OF PROPERTY: In the City of Asheville

BEGINNING at a stake in the Southern margin of Hilliard Avenue, said Beginning

stake being South 84 deg. 25 min. East 95.2 feet from the intersect said Southern margin of Hilliard Avenue with the Eastern margin of Avenue; runs thence with the said Southern margin of Hilliard Aven 84 deg. 25 min. East 55.94 feet to a stake in same; thence South 1 West 23 feet to a locust hub, the Southeast corner of a tract conv E. Clark and wife to W. S. Harrison and wife by deed dated August recorded in Book 590, at page 301, in the Office of the Register o Buncombe County, N. C.; thence with the Southern line of the said tract, North 89 deg. 12 min. West 55.98 feet to a stake opposite t of a party wall, which stake is South 89 deg. 12 min. East 95.24 Eastern margin of Ashland Avenue; thence North 1 deg. 47 min. East the center line of said party wall, 27.66 feet to a stake, the pla BEGINNING. Together with any and all right, title and interest of the first part in and to the sidewalk on Hilliard Avenue which sid adjoins the above described property on the North. Being the East that certain property described in a deed from Carl E. Clark and w Clark to W. S. Harrison and wife, Beulah L. Harrison dated August 3 recorded in Book 590, page 301 in the Office of the Register of De County, N. C.

JUN

TAXES LISTED IN THE NAME OF: Lucas & Bessie Kalogerakis.

Ward ... 4 ... , Sheet . 1 ... , Lot s . 339 &

19. 68. Valuation: Real

ABOVE PROPERTY IS SUBJECT TO:

a. Taxes and Assessments; Ad Valorem taxes for the years 1949 and 1963 through 1968 in the total amount, to May 1, of \$1,308.48; and 1969 taxes, a lien but not yet due and payable.
b. Mortgages, Deeds of Trust, Vendors Liens: None of record

	Parcel Address Name of Owner Address of Owner
	Address of Owner
anner breek	FOR LAST TRANSFER Date September 26, 1947 Deed Book 646 Page 417
	Consideration: Deed \$_10.00 Documentary Stamp \$8.80
	Actual Consideration, Terms, etc.
	PHOTOGRAPHS and DRAWING haca er 0001
	ENSULATION STORY OF THE PROPERTY OF
	The state of the s
-	i Best Use To Which Property Is Adaptable Commercial
	ION: ertify to the Redevelopment Commission of Asheville that I ally inspected the property herein described; that to the knowledge and belief, the information contained in this correct; that I have no personal interest, present or prosn the property referred to; that I have applied accepted i standards of real estate appraisal practice and thereby resent market value of the property to be:
	ertify to the Redevelopment Commission of Asheville that I ally inspected the property herein described; that to the knowledge and belief, the information contained in this correct; that I have no personal interest, present or prostate property referred to; that I have applied accepted is standards of real estate appraisal practice and thereby

W. T. Duckworth Company

Sustainable Archives & Leveraging Technologies (SALT)

The discipline of digital preservation can be described as the practice of managing content, in the context of infrastructure, dealing with governance issues, and managing policies.

