

LAGS WORKING PAPERS, THIRD SERIES (1985)

WORKING PAPER NUMBER FOUR

Virginia:
this will appear in
orbit soon. It
was also published
among the working papers
with the conference.
It is the essential plan
I have in mind for the
micro atlas.

An Electronic Atlas in Microform

Lee Pederson

AN ELECTRONIC ATLAS IN MICROFORM

Lee Pederson

During the first century of development in European and American dialectology, the form and function of the linguistic atlas have changed considerably. The massive folio productions of Gilliéron, Wenker and Wrede, Jaberg and Jud, and Kurath have given way to more efficient and simplified formats. Whereas the great pioneer atlases transmitted data bases and linguistic contrasts on a single plane, later efforts of Orton (England), McDavid (Middle and South Atlantic States, USA), and Allen (Upper Midwest, USA) introduced list manuscript publication and base-map overprinting to improve the referential value of the work and to reduce publication costs. Current research in the Linguistic Atlas of the Gulf States (LAGS) Project reflects the influence of all those European and American works and draws heavily upon the resources of present-day technology in the composition of its informational chain.¹

The LAGS *Basic Materials* (1981) and the concordance (forthcoming) record and index the full protocol collection of the survey in fewer than 2,000 fiche.² Those tools offer more nearly coherent and comprehensive representations of the data that forms a linguistic atlas than any gathering of maps or list manuscripts can possibly provide. This report outlines a plan for an electronic atlas in microform (EAM) that suggests a further application of computer technology in dialect study. Although a mainframe schedule can easily be developed from this plan, the microcomputer format aims to serve a larger number of users than those with direct or network access to a major system.

EAM will include a set of programs and files capable of projecting

hundreds of thousands of dialect maps on the monitor screen of a microcomputer, and, when needed, the maps can be printed for hard copy reproduction. The method combines data already stored on diskettes ("floppy disks," hereafter *disks*) with a regional electronic grid map, a graphic plotter grid.³ The programs merge the files and produce maps in response to a simple set of commands. As a research tool, this forms the final application of the computer in the survey and the most abstract projection of findings in the informational chain.⁴

Because EAM is one of several descriptive formats used in the project, the files selected for computer mapping must be representative of the full texts published in microform, the basic materials and their exhaustive concordance. Like those collections, this abstraction aims primarily to provide research needs as a reference instrument. In that respect, EAM closely follows the design of the pioneer atlas publications in the production of charts that lay out information for analysis by the reader, without the prescriptive limitations of interpretative conclusions prior to a full disclosure of the facts.

To illustrate the resources of EAM, this report extends the discussion from earlier working papers⁵ and depends on them in documenting some of the procedures mentioned here in cursory remarks. Here, the outline aims to show the kinds of files, maps, and information transmitted on a set of 10 disks, including an operations disk and nine data disks that store 250 linguistic files. The programs of the operations disk will produce lists and maps of data in the files in several kinds of linguistic, social, and geographical configurations. The first part of this report explains the composition of linguistic files, forms that function independently as list-manuscript data and collectively with the graphic plotter grid as microcomputer maps.

The Files

With the form and contents of the operations disk explained elsewhere (Pederson and McDaniel, *forthcoming*), the linguistic files are most conveniently recognized as summaries reduced to an alphabetic code and merged with data files to produce specific lexical, morphological, or phonological registers. These instruments can be produced independently as lists for onscreen or hard-copy printing. They underlie the four projections of LAGS material in EAM: the onscreen and printed versions of lists and maps.

Linguistic files will include 250 items, 100 lexical, 50 morphological, 50 phonemic, and 50 phonetic sets. Although final selections will be drawn from a much larger gathering of files, the essential format can be suggested in these terms:

1. Lexical Files: including most of the items in Kurath (1949) with additions from Atwood (1962), such as *chigger/red bug*, *lagniappe/pilon*, and *shivaree*, and the LAGS work sheets (1972/1974/1981), such as *tommyto* ("small tomato"), *gopher* ("burrowing land turtle"), and *moonshine/white lightning/shinny* ("unlicensed potable alcoholic blends");⁶
2. Morphological Files: including function words and inflectional forms recorded in Atwood (1953) with additions from the LAGS work sheets, as, for example, principal parts of all plotted verb forms and zero patterns of inflection (number and tense), function words (articles, prepositions, verb auxiliaries), and linking verbs (the deleted copula);⁷
3. Phonemic Files: including the incidence of consonants and vowels recorded in Kurath and McDavid (1961), this set presents the most

orthodox gathering of forms in EAM. The authoritative selection, analysis, and description of unitary phonemes in PEAS offers a guide that requires no immediate modification in the Gulf States;⁸

4. Phonetic Files: including the realization of consonant and vowel phonemes as strings of phonetic features, this set extrapolates findings from Pederson (1985) and the aforementioned survey in deductive phonetics. Although most of these files are drawn from the idiolect synopses (*Basic Materials*: Fiche 6-16), some report evidence directly from the protocols (*op cit.*: Fiche 17-1134).⁹

Each set of files will be open to all kinds of geographical, historical, and social analysis controlled by the operations disk.

A summary of the contents of a lexical file identifies the code, a synopsis of incidence, and the register for a synonym within the set. Figure 1, "MANTEL: Code and Count," combines two files, the code and combinations file and the totals file. These identify the 32 synonyms coded A-Z/aa-af, the 46 patterns of combinations in which the synonyms occur, two inappropriate responses excluded from the list, and a summary of incidence in parens for all synonyms.¹⁰

The forms were elicited with this item from work sheet eight:

4. The lamp is on the) mantel *mantelshelf, *mantelpiece, *tussock,
*clock shelf, *fireboard, *mantel board, *manteltree

L[owman]: Up above the fireplace to set vases on.

M[cDavid]: What would you call the place above the fireplace where you might put an ornament or picture or something like that?¹¹

Although the general form *mantel* and the dominant Lower Southern form *mantelpiece* are too numerous to list in a short report, the files including *fireboard* (Figure 2) and *mantel board* (Figure 3) are suggestive of EAM data in

FIGURE 1

MANTEL: Code and Count

A = mantel (567)	Q = mantel place (1)
B = mantelpiece (242)	R = fire mantel (2)
C = fireboard (72)	S = shelf mantel (2)
D = chimney shelf (2)	T = oak (1)
E = shelf (62)	U = chimney (1)
F = stone mantel (1)	V = fireplace shelf (3)
G = mantel board (54)	W = wooden mantel (1)
H = chimneypiece (1)	X = arch (1)
I = manteltree (1)	Y = arch rock (1)
J = mantelshelf (36)	Z = mantel log (1)
K = fire shelf (2)	aa = la corniche (1)
L = whatnot shelf (2)	ab = medicine shelf (1)
M = board (6)	ac = fireplace mantel (1)
N = shelf over the fireplace (1)	ad = ledge (1)
O = clock shelf (1)	ae = chimney breast (1)
P = manteling (1)	af = chimenea (1)

Combinations

A+B (66)	A+D (1)	B+C (7)	E+J (2)
A+B+E (2)	A+D+K (1)	B+E (11)	E+L (1)
A+B+G (1)		B+G (7)	E+M (1)
A+B+J (1)	A+E (17)	B+G+I (1)	E+V (1)
A+B+ae (1)	A+E+J (2)	B+J (2)	E+aa (1)
A+B+C+G (1)	A+E+R (1)	B+M (1)	E+ad (1)
	A+E+J+V (1)	B+N (1)	
A+C (43)		B+Q (1)	J+T (1)
A+C+E (2)	A+G (6)	B+U (1)	
A+C+H (1)	A+G+Z (1)		
A+C+W (1)		C+G (2)	
A+C+G+J (1)	A+J (5)	C+M (1)	
A+C+G+O (1)	A+M (2)	C+ab (1)	
	A+R (1)		
	A+S (1)		
	A+X+Y (1)		
	A+ac (1)		

Substitute/Inappropriate Responses

banister
fireplace

FIGURE 2

Book	Protocol	Sx	Cl	Rc	Age	Ed	Speech	Locality (Community)	Sec	FW	Sc
** Lexical File: mantel -- C -- fireboard **											
001	A 001.04	F	L	Y	99	1	folk	Neva (Johnson)	ET	LP	LP 1
002	A 001.01	M	L	Y	82	1	folk	Laurel Bloomery (Johnson)	ET	LP	LP 2
003	A 001.03	M	M	Y	79	1	common	Shady Valley (Johnson)	ET	LP	LP 3
004	A 001.05	F	L	Y	38	2	common	Laurel Bloomery (Johnson)	ET	MMc	LP 4
005	A 001.02	F	M	Y	78	3	cultured	Laurel Bloomery (Johnson)	ET	LP	LP 5
008	A 002.01	M	L	Y	67	1	common	Carter (Carter)	ET	DAC	LP 6
011	B 005.01	M	L	Y	66	1	folk	Jackson Chapel (Greene)	ET	LP	LP 7
012	C 006.01	F	L	Y	73	1	folk	Big Creek (Sullivan)	ET	LP	LP 8
017	C 007.01	M	M	Y	84	1	folk	St. Clair (Hawkins)	ET	LP	LP 9
018	D 009.01	F	I	Y	43	1	folk	Rankin (Cocke)	ET	LP	LP 10
019	D 009.02	M	M	Y	76	2	common	Bat Harbor (Cocke)	ET	LP	LP 11
020	D 009.03	M	M	Y	72	3	cultured	Cosby (Cocke)	ET	LP	LP 12
021	D 010.01	M	M	Y	81	1	folk	Talbott (Jefferson)	ET	LP	LP 13
023	E 014.01	M	M	Y	80	1	folk	Little Sycamore (Claiborne)	ET	LP	LP 14
025	F 015.01	M	M	Y	76	1	folk	Wear Valley (Sevier)	ET	LP	LP 15
036	H 019.02	M	L	Y	80	1	folk	Jacksboro (Campbell)	ET	LP	LP 16
042	J 024.01	M	L	Y	89	2	folk	Kingston (Roane)	ET	LP	LP 17
044	J 026.01	F	L	Y	86	1	folk	Sequatchie Valley (Cumberland)	ET	BR	LP 18
047	K 028.03	M	L	Y	78	1	folk	Spring City (Rhea)	ET	SL	SL 19
061	O 036.01	M	L	Y	81	1	folk	Ellijay (Gilmer)	UG	MMc	RIM 20
064	Q# 001.01	F	M	Y	86	1	folk	Blairsville (Union)	UG	EH-2	LP 21
069	Q 043.01	F	L	Y	63	1	folk	Jasper (Pickens)	UG	KED	MP 22
072	Q# 004.01	M	L	Y	80	1	folk	Dahlonega (Lumpkin)	UG	LP	LP 23
073	Q# 005.01	F	M	Y	64	3	cultured	Cleveland (White)	UG	AM	SL 24
079	R 047.01	F	U	Y	68	3	cultured	Rome (Floyd)	UG	CMU	LP 25
080	R 048.01	M	M	Y	76	2	common	Menlo (Chattooga)	UG	JMF	LP 26
084	S 051.01	M	L	X	69	1	folk	Conyers (Rockdale)	UG	BR	LP 27
088	S# 009.01	F	M	Y	74	1	folk	Toccoa (Stephens)	UG	IR	SL 28
092	S# 014.01	F	M	Y	63	2	common	Hartwell (Hart)	UG	LD-1	LP 29
095	T 052.04	F	M	Y	78	2	folk	Lithonia (De Kalb)	UG	EWB	GR 30
116	X 063.02	M	L	X	80	1	folk	Newnan (Coweta)	UG	SB-1	LP 31
136	Z 070.01	M	L	Y	70	1	folk	Thomaston (Upson)	UG	AB	SL 32
152	AC# 042.02	F	L	Y	70	2	common	Swainsboro (Emanuel)	LG	BR	PE 33
184	AG 098.02	M	M	Y	60	2	common	Ocilla (Irwin)	LG	SNH	SL 34
186	AH 100.01	F	M	Y	55	2	common	Tifton (Tift)	LG	MB	LP 35
210	AM 118.01	M	M	X	74	1	folk	Ray City (Berrien)	LG	AB	GB 36
290	BA 185.01	F	L	Y	65	1	folk	Forbus (Fentress)	MT	BR	LP 37
315	BH 206.01	F	L	Y	81	1	folk	Waverly (Humphreys)	MT	RP	LD 38
317	BH 207.01	F	L	Y	81	2	folk	Only (Hickman)	MT	BR	LD 39
318	BH 207.02	M	M	Y	72	2	common	Whitehouse (Hickman)	MT	BR	LP 40
321	BI 209.01	M	M	Y	81	3	common	Spencer (Van Buren)	NT	BR	LD 41
338	BN 225.04	F	M	Y	64	2	common	Stevenson (Jackson)	UA	MB	LP 42
348	BD 229.01	F	M	Y	50	2	common	Town Creek (Lawrence)	UA	AM	MB 43
350	BP 230.01	M	L	Y	64	2	common	Lexington (Lauderdale)	UA	AB-1	MP 44
355	BR 234.01	F	M	Y	69	1	folk	Blountsville (Blount)	UA	JH-1	LP 45
359	BS 237.01	M	M	Y	78	2	common	Haleyville (Winston)	UA	SL	SL 46
363	BS 238.01	M	M	X	42	2	common	Bexar (Marion)	UA	EC-2	MB 47
365	BS 239.02	F	M	Y	45	2	common	Belgreen (Franklin)	UA	CHF	LP 48
376	BV 244.06	M	M	Y	80	1	folk	Duncanville (Tuscaloosa)	UA	GB	PE 49
388	BX 251.03	M	L	Y	78	1	folk	Shelby (Shelby)	UA	AMF	SL 50

FIGURE 2 (Continued)

420	CD	273.02	M	L	Y	74	1	folk	Macedonia (Lowndes)	LA	GB	MP	51
435	CF	279.03	M	M	Y	73	2	common	Troy (Pike)	LA	GB	GB	52
438	CF	281.01	M	L	X	73	1	folk	Greenville (Butler)	LA	GB	LP	53
440	CF	281.02	F	M	Y	55	2	common	Greenville (Butler)	LA	GB	MB	54
450	CI	288.02	M	L	Y	78	2	common	Leroy (Washington)	LA	BR	MP	55
465	CL	299.02	F	I	Y	72	1	folk	Laurel Hill (Okaloosa)	WF	BR	PE	56
520	DH	325.01	M	L	Y	72	2	folk	Iuka (Tishomingo)	UM	EC	LP	57
600	DW	387.05	M	L	X	84	1	folk	Soso (Jones)	LM	BR	GR	58
674	FA	432.01	M	M	Y	82	1	folk	Piggott (Clay)	AR	MMc	LP	59
681	FB	439.01	M	L	Y	65	1	folk	Cave City (Sharp)	AR	GM	MP	60
684	FB	439.02	M	M	Y	62	2	common	Evening Shade (Sharp)	AR	GM	LP	61
689	FC	444.02	F	L	Y	82	2	folk	Forrest City (St. Francis)	AR	MMc	PE	62
694	FD	450.02	M	M	Y	70	1	folk	Des Arc (Prairie)	AR	MMc	LP	63
713	FH	459.01	F	M	Y	86	2	common	Greenbrier (Faulkner)	AR	MMc	PE	64
715	FH	462.01	F	L	Y	77	1	folk	Pee Dee (Van Buren)	AR	MMc	LP	65
716	FI	463.01	M	M	Y	84	1	folk	Mountain Home (Baxter)	AR	MMc	LD	66
717	FI	465.01	F	M	Y	71	1	folk	Hilltop (Searcy)	AR	MMc	PE	67
726	FJ	473.01	F	L	Y	86	1	folk	Mulberry (Crawford)	AR	MMc	GR	68
733	FK	480.01	M	M	Y	70	1	folk	Gate (Scott)	AR	EC	SL	69
786	FU	526.03	M	L	Y	67	1	folk	Provencal (Natchitoches)	WL	BR	GB	70
823	GB	558.02	M	L	Y	37	2	common	Harmony (Nacogdoches)	UT	BR	PE	71
838	GE	582.01	M	M	Y	93	1	folk	Denison (Grayson)	UT	MB	MP	72

Total: 72

FIGURE 3

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** Lexical File: mantel -- G -- mantel board **
063  O 037.02 M L Y 86 1 folk Chatsworth (Murray) UG JMF LP 1
098  T 053.11 M L X 70 1 folk Atlanta (Fulton) UG MNT GR 2
187  AH 101.01 M L Y 82 1 folk Sumner (Worth) LG AB SL 3
193  AJ 107.01 M M Y 70 2 common Georgetown (Quitman) LG GM MB 4
212  AN 121.01 F M Y 74 1 folk Moultrie (Colquitt) LG GM PE 5
216  AD 123.03 F M Y 70 3 common Camilla (Mitchell) LG LY GB 6
225  AP 129.01 M L Y 83 1 common Donalsonville (Seminole) LG BR LP 7
236  AR 134.04 M M Y 46 2 common Hopeful Church (Columbia) EF BR PE 8
239  AT 141.01 F M Y 52 2 common Tallahassee (Leon) EF MB SL 9
301  BE 198.01 F I Y 82 1 folk Gainesboro (Jackson) MT BR LD 10
318  BH 207.02 M M Y 72 2 common Whitehouse (Hickman) MT BR LP 11
402  CA 261.01 M M Y 68 2 common Sprott (Perry) LA GB LP 12
411  CC 268.04 M M Y 45 2 common Opelika (Lee) LA DS MP 13
415  CD 271.01 M M Y 71 2 common Union Springs (Bullock) LA MB MB 14
431  CE 278.01 M M Y 84 1 folk Geneva (Geneva) LA MB PE 15
438  CF 281.01 M L X 73 1 folk Greenville (Butler) LA GB LP 16
439  CF 281.03 M M Y 68 1 folk Shacklesville (Butler) LA BSS SL 17
440  CF 281.02 F M Y 55 2 common Greenville (Butler) LA GB MB 18
442  CG 282.02 M M Y 77 2 common New Brockton (Coffee) LA MB GR 19
444  CG 283.01 M M Y 76 1 folk Gantt (Covington) LA GB LP 20
446  CH 284.01 F L Y 59 2 common Damascus (Escambia) LA EH-1 LP 21
451  CI 289.01 M L Y 85 1 folk Needham (Choctaw) LA MB LP 22
460  CK 296.01 F L Y 87 1 folk Rock Hill (Washington) WF BR LD 23
465  CL 299.02 F I Y 72 1 folk Laurel Hill (Okaloosa) WF BR PE 24
467  CM 300.01 F M Y 77 1 folk Jay (Santa Rosa) WF GB LP 25
472  CN 302.03 M L Y 74 1 folk Stockton (Baldwin) GA MB SL 26
505  DE 320.02 F M X 65 1 folk Covington (Tipton) WT MB LP 27
525  DI 330.02 M M X 82 1 folk Holly Springs (Marshall) UM EC PE 28
530  DJ 335.01 M L X 74 1 folk Sherard (Coahoma) UM GM PE 29
534  DK 339.02 M M Y 69 1 folk Saltillo (Lee) UM MB MP 30
536  DK 340.01 M M Y 86 1 folk Toxish (Pontotoc) UM EC PE 31
559  DO 356.01 M M Y 83 2 common Chester (Choctaw) UM EC SL 32
580  DS 374.02 M L X 78 1 folk Mayersville (Issaquena) LM GM SL 33
582  DT 375.01 M M Y 76 1 folk Quitman (Clarke) LM MB LP 34
583  DT 377.01 M L Y 77 2 common Trenton (Smith) LM BR LD 35
584  DT 377.02 F M Y 65 3 cultured Wicker (Smith) LM BR PE 36
600  DW 387.05 M L X 84 1 folk Soso (Jones) LM BR GR 37
605  DX 392.01 F M Y 85 1 folk Weathersby (Simpson) LM MB SL 38
697  FE 453.01 F M X 84 1 folk Helena (Phillips) AR MMc PE 39
740  FM 488.01 F M Y 77 1 folk Hearn (Clark) AR MMc LP 40
744  FN 494.02 M M Y 86 1 folk Texarkana (Miller) AR EC SL 41
750  FO 501.04 F M Y 62 2 common Strong (Union) AR MB LP 42
758  FQ 508.01 F L Y 83 2 folk Oak Grove (W. Carroll) WL MB SL 43
763  FR 514.03 M L Y 92 1 folk Spearsville (Union) WL BR LP 44
772  FS 518.02 M M Y 73 1 folk Antioch (Lincoln) WL GM MP 45
773  FS 521.01 M M Y 77 1 folk Germantown (Webster) WL GM LP 46
774  FT 523.06 M I X 82 1 folk Shreveport (Caddo) WL BR LP 47
782  FU 525.01 M L Y 80 1 folk Coushatta (Red River) WL MB SL 48
791  FV 528.03 M M Y 51 2 common Hawthorne (Vernon) WL GM GB 49
795  FW 532.01 M M Y 85 2 common Colfax (Grant) WL MB SL 50
800  FX 536.02 M M Y 76 1 folk Enterprise (Catahoula) WL BR SL 51

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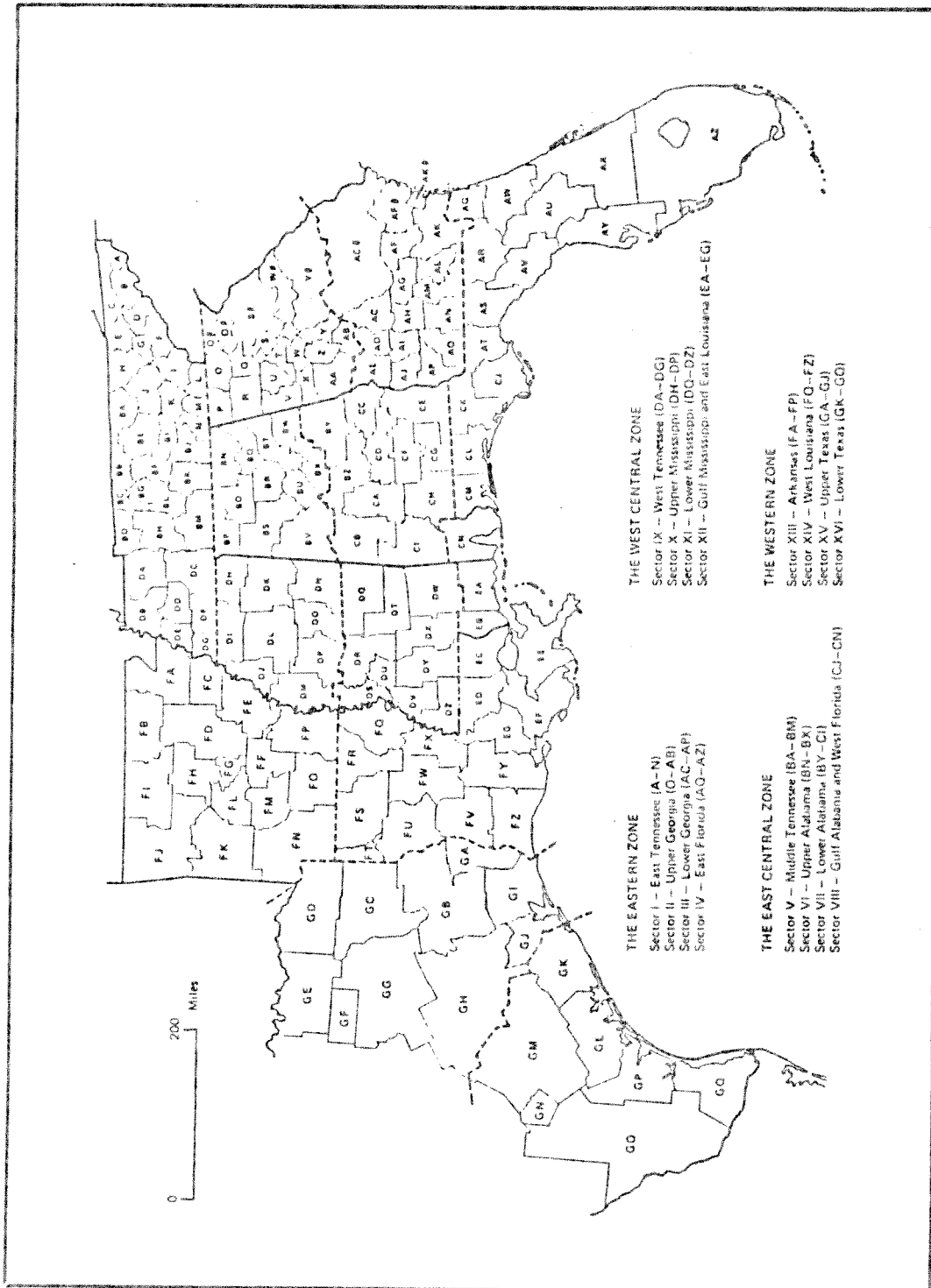
FIGURE 3 (Continued)

837	GE 579.01	F	M	Y	86	3	common	Greenville (Hunt)	UT	MB	PE	52
840	GE 584.01	F	L	Y	79	1	folk	Denton (Denton)	UT	SF	SL	53
856	GH 611.06	M	L	Y	88	1	folk	Huntsville (Walker)	UT	JNR	SL	54
Total: 54												

tabular form. Each list records informant data in 13 fields. For example, the first entry under *fireboard* reports this information:

- 1) 001: the Book Number, the number assigned all primary informants, 001-914 in the listing of protocols in the *Basic Materials* and all other analogues, as, for example, the idiolect synopses and the concordance. Each of those 914 numbers has a position on the graphic plotter grid.¹²
- 2) A 001.04: the Protocol Number, the number assigned each field record and protocol during the composition of the sample. This number appears on every protocol page in the *Basic Materials*. The letter A identifies a set of counties with common geographical terrain and social history, here, the East Tennessee counties of Johnson and Carter; see Figure 4, "The LAGS Grid." The number 001 identifies Johnson County, the first of 665 counties and parishes indexed for the LAGS survey. The complementary number .04 indicates that this is the fourth interview conducted in Johnson County.¹³
- 3) F: the gender code, F(emale)/M(ale).
- 4) L: the social class code, A(ristocratic)/U(pper Middle)/M(iddle)/L(ower)/I(ndigent). These are simplified to U(pper: A+U)/M(iddle)/L(ower: L+I) in EAM projections.¹⁴
- 5) Y: the racial caste code, X(black)/Y(white).
- 6) 99: the age of the informant in years.
- 7) 1: the educational code, 1(elementary school)/2(high school)/3(college).
- 8) folk: the speech type, as suggested by comments of field workers and scribes. Although these descriptors tend to be circular, they are sometimes useful in correlating LAGS data with findings of other

FIGURE 4: THE LAGS GRID



American atlas projects, where informants are classified I(folk)/II(common)/III(cultured).

5) *Loca* (Johnson): the locality, i.e., town (community, i.e., county or parish) represented by the informant. Virtually all LAGS primary informants are natives and lifelong residents of the places designated in this field.

10) *ST*: the sector code, here E(ast) T(ennessee) as outlined in Figure 4, grid units A-N.

11) *LF*: initials of field worker, here, Lee Pederson.

12) *LS*: initials of scribe, here, Lee Pederson.

13) *i*: number in running count of incidence within a list, useful in cursory assessments of subregional distribution.

This information can be printed as shown in Figures 1-3 or projected on the matrix of the graphic plotter grid. In tabular form, the lists are most useful in comparing social factors, but they are also suggestive in approximating subregional distribution.

For example, Figure 2, "Fireboard," includes 72 instances of the form. Sixteen of these occur among the 60 informants of East Tennessee, with 13 more in Upper Georgia, 14 more in Middle Tennessee and Upper Alabama, and 11 in Arkansas. Those five of 18 sectoral subdivisions (Figure 4) comprise 57 of the instances of the term. Most of that territory is north of the Piedmont and well within the domain of the historical South Midland dialect area, suggesting that the term is a solid regional marker.

The incidence of *mantel board* (Figure 3) suggests a historical extension of the pattern of relic *fireboard*. Perhaps a blend of *mantel* or *mantelpiece* and *fireboard*, *mantel board* occupies much of the South Midland territory outlined in Figure 2, but it also shows heavy occurrence in the Pine Woods

areas of Georgia, Lower Alabama, West Florida, and Lower and Gulf Mississippi. In those places, a vestige of the relic form may remain, and, with it, the pattern leaves a reminder of the cultural origin of those Pinelanders, who migrated westward across the lower reaches of the territory. They moved out of the Carolina Pine Barrens, the birthplace of Andrew Jackson, and moved south and west, settling in those unproductive lands now called the Wire Grass in Georgia, the Sand Hills in Alabama, and the Pine Woods (or Piney Woods) in Florida, Mississippi, and Louisiana. And they carried with them those old-fashioned Southern forms, still distinguishable from the plantation varieties of regional speech.

The Maps

The lists are suggestive of regional patterns, but they are not easily committed to or sustained in memory without graphic assistance. Linguistic geography has always exploited the map as its singularly powerful descriptive tool. As stated above, without the inventorial responsibilities of the pioneer atlases, modern mapping has been limited mainly to interpretative studies, essays that follow the publication of a linguistic atlas. Because such works require long periods of time to complete, few maps accompany interim reports because they are difficult to compose and expensive to reproduce. The maps of EAM produced on the matrix of a graphic plotter grid are composed automatically with simple programs and reproduced at the same cost for the printing of a single page of type from a microcomputer.¹⁵

As explained in the working paper on the subject, the graphic plotter grid is a minimal matrix, a map that aims at representation of the Gulf States territory on a plane of 914 uninterrupted points. The goal was realized in

six of the eight states, but, in Florida and Texas, land mass and settlement history complicated the problem that required additional space for solution.¹⁶ The base form map for EAM includes 914 points within the state boundaries outlined in Figure 5, "Informant Positions on the LAGS Graphic Plotter Grid."

This format accommodates a large quantity of data in small space. For example, Figure 6, "mantel/mantelpiece," plots the incidence of the two most common terms recorded in the survey, including more than 800 instances of the synonyms. That combination of the most common term, *mantel*, and the most frequently elicited regionalism, *mantelpiece*, covers the territory quite evenly. But the much higher incidence of *mantel* in the South Midland territory of Tennessee and the New Southern territory of urban Florida does not suggest a common dialect area. In the north, the pattern signals the probable presence of a different regional term; in Florida, the absence of a regional term among urban speakers, especially younger ones.

Conversely, the terms *fireboard* and *mantel board* show much more distinctive patterns of distribution. Figure 7, "fireboard," outlines the historical South that lay beyond the influence of the great plantation cultures of the coast and the interior plains. Figure 8, "mantel board," shows an extension of that domain into subregions of the Old South, but mainly following the settlement pattern of the migrants from the Pine Barrens. Figure 9, "fireboard/mantel board," illustrates the general pattern mentioned earlier, a regional subculture that stands apart from the old plantation areas marked by *mantelpiece*.

Because the programs offer a tool for geographical and social listing and plotting of forms, each of the data maps (figures 6-9) could be reformed to show distribution according to sex, social class, racial caste, age (as, for example, in three groups: under 50, 50-69, and over 69), education, and speech