R_1

R_2

E — 272

ABSTRACT

An Analysis of Invasion-Succession and Areal Differentiation as Ecological Processes Operative in the Development of Ecological Variation Within a Negro Community

by Rodger Reid Rice

Though much has been written by human ecologists and other sociologists concerning the ecological processes of segregation and invasion-succession, a review of the relevant literature reveals a considerable variation in the application of these concepts. This thesis attempts a necessary clarification and differentiation of these two processes.

The focus of this study, however, is on the operation of segregation and invasion-succession within a Negro community in a selected Northern metropolitan city, namely, Grand Rapids, Michigan. The empirical data indicate a pattern common to other urban centers, i.e., a rapid migration of whites from the central city to the suburbs, along with a steadily increasing Negro population in the central city.

But the empirical data on the Negro population in Grand Rapids also suggest a wide range of differences <u>within</u> the Negro population. It is this variation, viewed from an ecological perspective, that becomes the problem of this thesis. Our concern with the processes of segregation and invasion-succession, then, becomes restricted to the <u>internal</u> variation pattern of an urban Negro community.

The objective of this thesis is to describe and explain the ecological variation pattern which exists in this Negro community. Two models representing the ecological processes of areal differentiation and invasion-succession are constructed. Areal differentiation is comparable to the

process of segregation but operative within the Negro community. The two models are differentiated on the basis of three major points. In simplified form the two models are presented as exact opposites with regard to these three points.

To operationalize these models for empirical testing the areal unit of analysis for the model of invasion-succession is termed "stage of succession". Four stages of succession have been differentiated on the basis of proportion of Negro households in an area: invasion, infiltration, consolidation, concentration. For the process of areal differentiation, the areal unit of analysis is "status area." A major type of status area is called "core area" which consists of a concentrated core with a high proportion of Negroes at its center surrounded by areas of invasion characterized by low proportion of Negroes. A second type is called "status area" which refers primarily to a segment of the larger core area.

The problem of this thesis emerges as the determining of which of these two models best predicts the ecological variation pattern in this Negro community. The hypotheses to be tested are abstracted from these models relative to the three major points of contrast. The first hypothesis states that the most significant ecological variation either exists among status areas or stages of succession. If the former is supported, then areal differentiation will be shown to be the more influential ecological process; if not, then invasion-succession is. The second hypothesis proposes that a gradient pattern will exist either among status areas or stages of succession, dependent upon which ecological variation in the first hypothesis is more significant. This gradient

pattern is defined in terms of a stability of status indices of an area over time and a consistency of indices used to indicate status. The third hypothesis asserts that whites being replaced by invading Negroes will either reveal a significant difference or will show similarity of status. If the former is true, the invasion-succession model is supported; if the latter, the areal differentiation model is supported.

Data were obtained from 539 Negro households and 487 white households residing in the Negro community. Information regarding seventeen variables were obtained for each household. These data were then classified on the basis of ecological area, i.e., by status area, core area, and stage of succession. All seventeen variables were employed in the testing of each of the three hypotheses to determine which ecological model best predicted ecological variation within the Negro community.

The findings show that areal differentiation at the core area level is the most significant ecological variation within the Negro community of Grand Rapids. Two status area types were tested: small status areas and core areas. The two core areas found to exist in the Negro community revealed a significant status difference between them. However, when status areas and stages of succession were tested for variation within the core areas, little internal variation was revealed. The status difference which does exist between the two core areas was shown to be greater when contrasting the concentrated core centers than when contrasting the invasion or fringe areas of the core areas. Areal differentiation at the core areal level was also substantiated in the second hypothesis, which predicted a gradient pattern. The core areas had maintained a "stability" of gradient over the past two decades and a "consistency" of gradient when all seventeen variables were examined.

When t

invasion-s

Negro invad

between the

resistance

the Negro c

The con

to be operat

hypotheses a

of the third

processes wor

variation acc

When testing for the third hypothesis, however, it was found that the invasion-succession model more accurately predicted the variation between Negro invaders and whites being replaced. There exists a status difference between these two distinct groups, which further suggests a continual resistance of the invading Negroes by the white residents contiguous to the Negro core areas.

The conclusion, therefore, is that both ecological processes appear to be operative in the Negro community. On the basis of the first two hypotheses areal differentiation was substantiated, whereas on the basis of the third hypothesis, invasion-succession was supported. Both ecological processes were then synthesized into one single model of ecological variation according to the findings of this study.

AN ANA

ECOLOGI

SUBMITTE
THE DEG
IOLOGY

APPROVED

AN ANALYSIS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION AS ECOLOGICAL PROCESSES OPERATIVE IN THE DEVELOPMENT OF ECOLOGICAL VARIATION WITHIN A NEGRO COMMUNITY

BY

RODGER REID RICE

A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN THE DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY IN MICHIGAN STATE UNIVERSITY

EAST LANSING, MICHIGAN

1962

APPROVED James B. McKee

ACKNOWLEDGMENTS

Appreciation is to be expressed to Dr. James B. McKee, my major professor, under whose direction and guidance this study was completed. His advice and encouragements were, indeed, extremely helpful and without them perhaps this thesis would never have reached its final stage.

Recognition is to be given to the Human Relations Commission of Grand Rapids which gave financial support to the initial collection of data upon which this study has been based. Also, the Institute for Community Development of Michigan State University is to be offered special recognition for allowing me the time and the facilities by which this study was completed.

I also want to express my gratitude to Dr. Walter E. Freeman for his assistance and suggestions in the writing of this thesis. Also, I wish to thank Dr. Donald W. Olmsted for his assistance in the computation and interpretation of the statistical data included in the study.

Thanks are also due to Dr. Jay W. Artis and Professor Myles G. Boylan, members of my committee, for their time and suggestions.

Finally, a great deal of appreciation mingled with sympathy goes to my wife, Ruth, without whose patience and persistent moral support this thesis would never have been completed.

TABLE OF CONTENTS

CHAPTER		PAGE
I.	INTRODUCTION	1
II.	THE ECOLOGICAL PROCESSES: SEGREGATION AND INVASION-SUCCESSION	4
	THE ECOLOGICAL PROCESS OF SEGREGATION	8
	THE ECOLOGICAL PROCESS OF INVASION-SUCCESSION	21
III.	A CASE STUDY: SEGREGATION AND INVASION-SUCCESSION AS ECOLOGICAL PROCESSES OPERATIVE IN THE CITY OF GRAND RAPIDS, MICHIGAN	49
	INTRODUCTION	49
	THE CITY OF GRAND RAPIDS	52
	THE GROWTH OF THE NEGRO POPULATION	53
	CENTRAL CITY VERSUS SUBURBAN FRINGE	60
	THE PATTERN OF RACIAL SEGREGATION	65
	SOME CONCOMITANTS OF NEGRO SEGREGATION	77
	THE PROCESS OF INVASION-SUCCESSION	87
IV.	RESEARCH PROBLEM DERIVED FROM THE ECOLOGICAL PROCESSES OF SEGREGATION AND INVASION-SUCCESSION	97
	THE PROBLEM	97
	A MODEL OF INVASION-SUCCESSION	99
	A MODEL OF AREAL DIFFERENTIATION	103
	HYPOTHESES	107
	METHODOLOGY	110
V.	ANALYSIS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION AS ECOLOGICAL PROCESSES OPERATIVE WITHIN A NEGRO COMMUNITY	130
	CHARACTERISTICS OF THE NEGRO COMMUNITY AND THE ECOLOGICAL MODELS	131
	HYPOTHESIS #1: ECOLOGICAL VARIATION PATTERNS RESULTANT FROM INVASION-SUCCESSION AND AREAL DIFFERENTIATION	139
	FINDINGS	142
	SUMMARY OF FINDINGS	154

CHAPTER

VI.

APPENDIX

LITE

ADDI

COPY

CHAPTER PAGE

HYPOTHESIS #2: THE GRADIENT PATTERN OF ECOLOGICAL VARIATION..... 155

FINDINGS..... 156
SUMMARY OF FINDINGS..... 172

HYPOTHESIS #3: THE ECOLOGICAL VARIATION PATTERN RESULTANT FROM POPULATION REPLACEMENT..... 173

FINDINGS..... 175
SUMMARY OF FINDINGS..... 183

VI. CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH... 184

CONCLUSIONS..... 184
LIMITATIONS AND WEAKNESSES OF THE STUDY..... 189
IMPLICATIONS FOR FURTHER RESEARCH..... 191

APPENDIX..... 193

LITERATURE CITED..... 194

ADDITIONAL TABLES

COPY OF SCHEDULE

TABLE

I GRO
19

II GRO
METR

III COMP
RAPI

IV POPU
CIVIL

V SUMM
AREA,
1940-

VI BLOC
UNITS

VII TREND
MICHI

VIII OCCUPA
METROP

IX CLASS
GRAND

X INCOME
1950.

XI POPULA
NEGRO P

XII AGE, C
FOR DWE
MICHIGA

XIII BLOCKS

XIV CHANGE
BY PER

XV CHANGE
LYING O
1959.

XVI TOTAL HO
SAMPLE A

LIST OF TABLES

TABLE		PAGE
I	GROWTH OF THE NEGRO POPULATION OF GRAND RAPIDS, MICHIGAN: 1900-1960.	54
II	GROWTH OF THE NON-WHITE POPULATION IN SIX SELECTED MICHIGAN METROPOLITAN CENTERS: 1930-1960.	56
III	COMPONENTS OF POPULATION GROWTH FOR KENT COUNTY, CITY OF GRAND RAPIDS, AND BALANCE OF COUNTY: APRIL 1, 1950 TO APRIL 1, 1960.	59
IV	POPULATION INCREASE FOR GRAND RAPIDS AND SURROUNDING MINOR CIVIL DIVISIONS: 1950-1960.	61
V	SUMMARY OF NET MIGRATION: GRAND RAPIDS STANDARD METROPOLITAN AREA, CENTRAL CITY, AND METROPOLITAN RING, BY AGE AND COLOR: 1940-50.	64
VI	BLOCKS OF NEGRO RESIDENCE BY PERCENTAGE OF NEGRO DWELLING UNITS: 1940-59.	73
VII	TRENDS IN RESIDENTIAL SEGREGATION OF NON-WHITES IN SIX SELECTED MICHIGAN CITIES: 1940-1950.	78
VIII	OCCUPATION OF EMPLOYED PERSONS BY RACE FOR GRAND RAPIDS STANDARD METROPOLITAN AREA: 1950.	80
IX	CLASS OF WORKER OF EMPLOYED PERSONS IN INDUSTRY BY RACE FOR GRAND RAPIDS STANDARD METROPOLITAN AREA: 1950.	81
X	INCOME IN 1949 OF PERSONS BY RACE FOR GRAND RAPIDS URBAN PLACE: 1950.	83
XI	POPULATION PER OCCUPIED DWELLING UNIT FOR TOTAL POPULATION AND NEGRO POPULATION, GRAND RAPIDS, MICHIGAN: 1940-1960.	84
XII	AGE, CONDITION, CROWDING, AVERAGE RENT, AVERAGE VALUE, AND TENURE FOR DWELLING UNITS IN NON-WHITE AND WHITE AREAS FOR GRAND RAPIDS, MICHIGAN: 1950.	85
XIII	BLOCKS OF NEGRO RESIDENCE BY STAGE OF SUCCESSION: 1940, 1950,1959.	91
XIV	CHANGE IN PROPORTION OF NEGROES BETWEEN 1940 AND 1959 FOR BLOCKS BY PER CENT NEGRO IN 1940.	93
XV	CHANGE IN PROPORTION NEGRO BETWEEN 1940 AND 1959 FOR BLOCKS LYING OUTSIDE AND INSIDE THE BOUNDARIES OF THE NEGRO GHETTO OF 1959.	93
XVI	TOTAL HOUSEHOLDS AND SAMPLE HOUSEHOLDS, NEGRO AND WHITE, FOR SAMPLE AREAS.	122

TABLE

XVII CO
NE

XVIII CO
NE

XIX CO
NE
PRE

XX TOTA
STA

XXI EXPE
FAMI
AREA

XXII TABLE
STAT
ECON

XXIII TABLE
TWEE
SOCIO

XXIV TABLE
STAT
WITH
AND

XXV TABL
STAG
STAG
ING,

XXVI TABL
INVA
AREA
AND
FAMI

XXVII TABLE
SOCIO
ECOL

XXVIII TABLE
ECON

LIST OF TABLES (CONT'D)

TABLE		PAGE
XVII	COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS.	123
XVIII	COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS RESIDING IN SINGLE-FAMILY STRUCTURES.	124
XIX	COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS WITH LENGTH OF RESIDENCE OVER TEN YEARS AT PRESENT ADDRESS.	125
XX	TOTAL HOUSEHOLDS AND SAMPLE HOUSEHOLDS, NEGRO AND WHITE, BY STAGES OF SUCCESSION OF BLOCKS IN SAMPLE AREAS.	127
XXI	EXPECTED RELATIONSHIP BETWEEN HOUSING, SOCIO-ECONOMIC, AND FAMILY DEPENDENT VARIABLES AND INDEPENDENT VARIABLES OF STATUS AREA AND STAGE OF SUCCESSION.	134
XXII	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE AMONG STATUS AREAS AND AMONG STAGES OF SUCCESSION BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.	143
XXIII	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN THE EAST CORE AND THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	146
XXIV	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE AMONG STATUS AREAS WITHIN THE EAST CORE AREA AND AMONG STATUS AREAS WITHIN THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	147
XXV	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN STAGES OF SUCCESSION WITHIN THE EAST CORE AREA AND BETWEEN STAGES OF SUCCESSION WITHIN THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	149
XXVI	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN INVASION-INFILTRATION STAGES OF THE EAST AND MIDDLE-WEST CORE AREAS AND BETWEEN CONCENTRATION-CONSOLIDATION STAGES OF THE EAST AND MIDDLE-WEST CORE AREAS BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	151
XXVII	TABLE OF CHI-SQUARES LEVELS OF SIGNIFICANCE FOR SELECTED SOCIO-ECONOMIC VARIABLES BY VARIOUS AREAL CATEGORIES OF THE ECOLOGICAL MODELS.	153
XXVIII	TABLE OF INDICES AND RANK ORDER OF INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY CORE AREA.	158

TABLE

XXIX TAB
IND

XXX-A TAB
CHA
BY S

XXX-B TAB
FAM
CORE

XXXI TAB
AND
AND

XXXII TAB
FAMI
AREA

XXXIII TABLE
INDIC
CHARA
WEST

XXXIV TABLE
INDIC
CHARA
AND M

XXXV TABLE
AND FA
CORE A

XXXVI TABLE
FOR ST
AND M

XXXVII TABLE
NEGROES
WEST C

XXXVIII TABLE
WHITES
WEST C

XXXIX TABLE
WHITES
SION B
OF SUCC

LIST OF TABLES (CONT'D)

TABLE		PAGE
XXIX	TABLE OF INDICES AND RANK ORDER OF INDICES OF SELECTED HOUSING CHARACTERISTICS BY CORE AREA FOR 1940 AND 1950.	159
XXX-A	TABLE OF INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS FOR EAST CORE AREA AND MIDDLE-WEST CORE AREA BY STAGE OF SUCCESSION.	161
XXX-B	TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, FAMILY CHARACTERISTICS FOR EAST CORE AREA AND MIDDLE-WEST CORE AREA BY STAGE OF SUCCESSION.	162
XXXI	TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STATUS AREA WITHIN EAST CORE AREA AND WITHIN MIDDLE-WEST CORE AREA.	164
XXXII	TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.	166
XXXIII	TABLE OF FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE BY RANK OF ALL INDICES AND INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STATUS AREA WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.	167
XXXIV	TABLE OF FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE BY RANK OF ALL INDICES AND INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.	168
XXXV	TABLE OF MEAN RANKS OF ALL INDICES AND HOUSING, SOCIO-ECONOMIC, AND FAMILY INDICES FOR STAGES OF SUCCESSION WITHIN MIDDLE-WEST CORE AREA.	169
XXXVI	TABLE OF RANK ORDER OF OCCUPATION, INCOME, AND EDUCATION INDICES FOR STATUS AREAS AND STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.	171
XXXVII	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN NEGROES AND WHITES BEING REPLACED IN EAST CORE AREA AND MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	176
XXXVIII	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN WHITES BEING REPLACED BY NEGROES IN EAST CORE AREA AND IN MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.	178
XXXIX	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN WHITES BEING REPLACED IN INVASION-INFILTRATION STAGES OF SUCCESSION BY CORE AREA AND BETWEEN CONCENTRATION-CONSOLIDATION STAGES OF SUCCESSION BY CORE AREA FOR SELECTED SOCIO-ECONOMIC VARIABLES.	180

TABLE

XXXX TA
NE
STA
VAR

LIST OF TABLES (CONT'D)

TABLE		PAGE
XXXX	TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN NEGROES AND WHITES BEING REPLACED IN INVASION-INFILTRATION STAGES OF SUCCESSION BY CORE AREA FOR SELECTED SOCIO-ECONOMIC VARIABLES.	182

LIST OF FIGURES

FIGURE		PAGE
1	POPULATION AND RESIDENTIAL GROWTH IN GRAND RAPIDS METROPOLITAN AREA.	62
2	AREAS OF NEGRO RESIDENCE IN GRAND RAPIDS: 1940.	67
3	AREAS OF NEGRO RESIDENCE IN GRAND RAPIDS: 1950.	68
4	AREAS OF NEGRO RESIDENCE IN GRAND RAPIDS: 1959.	69
5	EXAMPLES OF INVASION-SUCCESSION FOR SELECTED BLOCKS OF NEGRO RESIDENCE, 1940-1959.	95
6	MODELS OF ECOLOGICAL VARIATION.	111
7	SURVEY AREA AND SAMPLE AREAS IN WHICH INTERVIEWING WAS CONDUCTED, MAY, 1959.	118
8	CORE AREAS, STATUS AREAS, AND STAGES OF SUCCESSION AS GEOGRAPHICAL AREAS IN THE NEGRO COMMUNITY OF GRAND RAPIDS.	141
9	ACTUAL PATTERN OF ECOLOGICAL VARIATION FOR NEGRO COMMUNITY IN GRAND RAPIDS: AN ALTERNATIVE MODEL TO AREAL DIFFERENTIATION OR INVASION-SUCCESSION.	187

MUCH -

CONTINUOUSL

LARGER NORT

CAPTIVATED

AND THE PROC

ECOLOGISTS D

CONTENTION

MANY ELEMENT

FUSING. THE

AT ONE AND T

PARADOX. SE

THE GROUP (

BUT AT THE S

EXPAND THIS

COMPLETELY T

THE PUR

WHAT IS INVO

ARE THE PRIN

A PROBLEM IN

DETAINABLE.

AS POSSIBLE

OF DELINEATI

CHAPTER I

INTRODUCTION

MUCH HAS BEEN WRITTEN IN PAST YEARS DEALING WITH THE PROBLEMS OF CONTINUOUSLY GROWING AND EXPANDING NEGRO POPULATIONS IN MANY OF OUR LARGER NORTHERN AND WESTERN CITIES. TWO FACETS OF THESE PHENOMENA HAVE CAPTIVATED THE ATTENTION OF HUMAN ECOLOGISTS: THE PROCESS OF SEGREGATION AND THE PROCESS OF INVASION-SUCCESSION. MUCH HAS BEEN WRITTEN BY HUMAN ECOLOGISTS DEALING WITH THESE TWO PROCESSES ALONE. IT IS THE WRITER'S CONTENTION IN THIS THESIS, HOWEVER, THAT THERE EXIST IN THE LITERATURE MANY ELEMENTS OF THESE TWO PROCESSES WHICH APPEAR CONTRADICTORY OR CONFUSING. THE VERY FACT THAT SEGREGATION AND INVASION-SUCCESSION OPERATE AT ONE AND THE SAME TIME WITHIN THE SAME COMMUNITY SEEMS AT FIRST A PARADOX. SEGREGATION ESTABLISHES DISTINCT RESIDENTIAL BOUNDARIES FOR THE GROUP (IN THIS THESIS IT IS A RACIAL GROUP) ENCOMPASSED WITHIN IT, BUT AT THE SAME TIME THERE ARE ATTEMPTS BY THE MEMBERS OF THAT GROUP TO EXPAND THIS BOUNDARY OR TO EVEN BREAK FROM THE CONFINES OF THE BOUNDARY COMPLETELY THROUGH THE PROCESS OF INVASION-SUCCESSION.

THE PURPOSE OF THIS THESIS IS PRIMARILY TO ESTABLISH SPECIFICALLY WHAT IS INVOLVED IN EACH OF THESE TWO ECOLOGICAL PROCESSES, I.E., WHAT ARE THE PRINCIPLES OR ELEMENTS OPERATIVE IN EACH PROCESS. THIS REMAINS A PROBLEM IN ITSELF BECAUSE NO CLEAR-CUT CONCEPTION OF EITHER IS READILY OBTAINABLE. CHAPTER II WILL ATTEMPT TO REVIEW AS MUCH OF THE LITERATURE AS POSSIBLE DEALING WITH THESE TWO ECOLOGICAL PROCESSES WITH THE INTENTION OF DELINEATING SPECIFICALLY A MODEL FOR EACH OF THE ECOLOGICAL PROCESSES

IN TERMS OF

COMMUNITY A

AT-LARGE.

CHAPTE

ICAL CONTEN

TERMS OF T

BOTH SEGREGA

COMMUNITY I

GENERAL INTE

RAPIDS TO T

CHAPTER

PROBLEM OF T

THEORETICAL F

DEVELOPMENT O

FERENTIATION

CESSION WILL

HYPOTHESES TO

FINALLY,

OBTAINED FROM

OF ESTABLISHI

ECOLOGICAL PA

THIS PROCEDURE

(1) THAT THE T

SUCCESSION MAY

EACH BE ESTABL

IN TERMS OF HOW THEY OPERATE WITHIN THE RESIDENTIAL PATTERNS OF A NEGRO COMMUNITY AND HOW THEY RELATE THE NEGRO COMMUNITY TO THE URBAN COMMUNITY-AT-LARGE.

CHAPTER III OF THIS THESIS WILL BE AN ATTEMPT TO PROVIDE THE EMPIRICAL CONTENTS OF THE PARTICULAR NEGRO COMMUNITY WHICH WILL BE STUDIED IN TERMS OF THE TWO ECOLOGICAL PROCESSES. IN THIS CHAPTER THE PATTERNS OF BOTH SEGREGATION AND INVASION-SUCCESSION WILL BE PRESENTED FOR THE NEGRO COMMUNITY IN GRAND RAPIDS, MICHIGAN. THIS CHAPTER WILL ALSO PROVIDE A GENERAL INTRODUCTION TO THE RELATIONSHIP OF THE NEGRO POPULATION OF GRAND RAPIDS TO THE CITY AS A WHOLE.

CHAPTER IV WILL CONSIST OF AN ATTEMPT TO SPECIFICALLY DEFINE THE PROBLEM OF THE THESIS, DRAWING UPON THE CONTENTS OF CHAPTER II FOR ITS THEORETICAL FRAMEWORK AND CHAPTER III FOR ITS EMPIRICAL CONTENT. THE DEVELOPMENT OF THE TWO MODELS FOR THE ECOLOGICAL PROCESSES OF AREAL DIFFERENTIATION[1] (A FORM OF THE PROCESS OF SEGREGATION) AND INVASION-SUCCESSION WILL FOLLOW WITH THE FINAL STEP BEING THE DELINEATION OF THE HYPOTHESES TO BE TESTED IN THE FINAL CHAPTER OF ANALYSIS.

FINALLY, CHAPTER V WILL INVOLVE THE ACTUAL ANALYSIS OF THE DATE OBTAINED FROM A SURVEY OF THE NEGRO COMMUNITY OF GRAND RAPIDS IN HOPES OF ESTABLISHING WHICH ECOLOGICAL MODEL IS MORE VALID IN DESCRIBING THE ECOLOGICAL PATTERNS OF VARIATION FOUND WITHIN THIS NEGRO COMMUNITY. WITH THIS PROCEDURE, THEREFORE, IT IS HOPED THAT TWO GOALS WILL BE ACCOMPLISHED: (1) THAT THE TWO ECOLOGICAL PROCESSES OF AREAL DIFFERENTIATION AND INVASION-SUCCESSION MAY BE CLEARLY DIFFERENTIATED AND THE PRINCIPLES INVOLVED IN EACH BE ESTABLISHED AND (2) THAT A CONCLUSION MAY BE REACHED IN THE FINAL

ANALYSIS A

OF THE ECO

CONCLUSIONS

RESEARCH W

THIS CONCEPT

AND EXPLANATI

AN URBAN SETT

DUNCAN, THE N

CHICAGO PRESS

ANALYSIS AS TO WHICH ECOLOGICAL PROCESS BEST EXPLAINS THE DEVELOPMENT OF THE ECOLOGICAL VARIATION PATTERN EXISTING WITHIN THIS NEGRO COMMUNITY. CONCLUSIONS, LIMITATIONS AND WEAKNESSES, AND IMPLICATIONS FOR FURTHER RESEARCH WILL BE PROVIDED IN THE FINAL CHAPTER OF THIS THESIS.

---

[1] THIS CONCEPT IS NOT AN ORIGINAL CREATION OF THIS WRITER. FOR THE ORIGIN AND EXPLANATION OF THIS CONCEPT WITH REFERENCE TO THE NEGRO COMMUNITY IN AN URBAN SETTING, THE WRITER IS INDEBTED TO OTIS DUDLEY DUNCAN AND BEVERLY DUNCAN, THE NEGRO POPULATION OF CHICAGO. CHICAGO: THE UNIVERSITY OF CHICAGO PRESS, 1957.

T-E ECOLOGI

BEFORE AT

OF SEGREGATION

-ICH THIS STU

CONTRIBUTIONS T

STATE OF MUCH O

THEORY ACTUALLY

ACTER. EDWARD

DESCRIBES EARLY

IT WAS CHA
THEY WERE
ANY CLEAR
ATTEMPT 'T
ITS CONCRE

ALIHAN, IN

AT THE EARLY HU

OUT THE SIGNIFI

INTERPRETATION

SUGGESTS THAT T

SEEMS PARA
ICAL MONOG
PHENOMENA A
WITH THE PA
PRESENTED O
SORT OF SO
PROCESSES
THESE CONF
EXPECT A D
WERE, OF T

CHAPTER II

THE ECOLOGICAL PROCESSES: SEGREGATION AND INVASION-SUCCESSION

BEFORE ATTEMPTING TO PICTURE THE OPERATION OF THE ECOLOGICAL PROCESSES OF SEGREGATION AND INVASION-SUCCESSION WITHIN THE PARTICULAR CITY UPON WHICH THIS STUDY WILL FOCUS, IT IS IMPORTANT TO SET FORTH THE SIGNIFICANT CONTRIBUTIONS TO A GENERAL "THEORY" OF THESE ECOLOGICAL PROCESSES. THE STATE OF MUCH OF ECOLOGICAL THEORY, HOWEVER, SUGGESTS THAT NO SYSTEMATIC THEORY ACTUALLY EXISTS AND WHAT DOES EXIST IS MOSTLY DESCRIPTIVE IN CHARACTER. EDWARD SHILS IN HIS BOOK, THE PRESENT STATE OF AMERICAN SOCIOLOGY, DESCRIBES EARLY ECOLOGICAL RESEARCH AS FOLLOWS.

> IT WAS CHARACTERISTIC OF THESE (EARLY ECOLOGICAL) STUDIES THAT THEY WERE NOT MOTIVATED BY A CENTRAL SCIENTIFIC PROBLEM OR BY ANY CLEARLY DEFINED HYPOTHESIS. THEY REPRESENTED SIMPLY AN ATTEMPT 'TO SEE THE LIFE OF THE COMMUNITY AS A WHOLE' IN ALL ITS CONCRETENESS.[1]

ALIHAN, IN HER BOOK WRITTEN IN THE 1930'S, AIMED SHARP CRITICISMS AT THE EARLY HUMAN ECOLOGISTS. IN ONE OF HER CRITICISMS, ALIHAN POINTS OUT THE SIGNIFICANCE OF PROCESS AS THE FOCAL POINT OF HUMAN ECOLOGICAL INTERPRETATION AS OPPOSED TO STRUCTURE. HOWEVER, IN THIS SENSE ALIHAN SUGGESTS THAT THEIR APPROACH TO HUMAN LIFE

> SEEMS PARADOXICAL WHEN WE CONSIDER THAT THE MAJORITY OF ECOLOGICAL MONOGRAPHS ARE PREOCCUPIED WITH THE DISTRIBUTION OF SPECIFIC PHENOMENA AT A GIVEN TIME OVER A DETERMINATE AREA--IN OTHER WORDS, WITH THE PATTERN OF DATA WITHIN A PRESUMPTIVE SYSTEM....THE DATA PRESENTED CONSIST OF GEOMETRIC CONFIGURATIONS WITHIN WHICH SOME SORT OF SOCIAL OR ECONOMIC STRUCTURE IS ASSUMED TO EXIST. THE PROCESSES MAINLY REPRESENT PHYSICAL MOVEMENTS WITHIN AND BETWEEN THESE CONFIGURATIONS. BECAUSE OF THEIR PHYSICAL ASPECT WE WOULD EXPECT A DESCRIPTION OF THE ACTUAL MOVEMENT, OF THE FLOW, AS IT WERE, OF THESE PROCESSES. INSTEAD, WE ARE GIVEN A SERIES OF

EXTERNAL
WE ARE LE
ECOLOGIST
YOND THE
A SERIES
GIVEN A M
REAL INTE
CONTINUIT

WITH THE

TION BETWEEN T

AT THIS POINT.

GATION IMPLIES

REFERS MORE TO

ATED FOR SVEN

TYPES OF PEOPLE

WITHDRAW FROM

PROCESS OF URBA

MCKENZIE D

TYPES WITHIN TH

THE POPULATION

---

1. SHILS, EDWA
ILL.: THE
2. ALIHAN, MIL
COLUMBIA UN
3. RIEMER, SVEN
4. MCKENZIE, R.
EDITED BY E
1926. P. 1

> EXTERNAL INDICES OF EACH PROCESS IN TERMS OF SPACE AND TIME. WE ARE LEFT TO INFER THE CHARACTER OF THE PROCESS....THE ECOLOGISTS HAVE NOT YET DEALT WITH ECOLOGICAL PROCESSES BEYOND THE DESCRIPTIVE PHASE. THEY ARE PRESENTED TO US LIKE A SERIES OF SNAPSHOTS, FROM DIFFERENT ANGLES, WHICH CAN BE GIVEN A MECHANICAL ANIMATION, BUT WHICH DO NOT EXHIBIT THE REAL INTERNAL CONTINUITY OF THE PROCESS THEY REPRESENT. THE CONTINUITY IMPLIES A STRUCTURE WITHIN WHICH CHANGE OCCURS....[2]

WITH THE STATE OF THEORY OF ECOLOGICAL PROCESSES IN MIND, A DISTINCTION BETWEEN THE TWO MAJOR PROCESSES TO BE REVIEWED SHOULD BE PRESENTED AT THIS POINT. ALTHOUGH THE TERMS ARE BOTH CONSIDERED PROCESSES, SEGREGATION IMPLIES MORE A STABILIZATION OF PATTERN, WHEREAS INVASION-SUCCESSION REFERS MORE TO THE CHANGING OF PATTERN. THE TWO PROCESSES ARE CLOSELY RELATED FOR SVEND RIEMER STATES, "WERE IT NOT FOR A TENDENCY OF THE SAME TYPES OF PEOPLE TO CLUSTER THEIR RESIDENCES CLOSE TO EACH OTHER AND TO WITHDRAW FROM IDENTIFICATION WITH OTHER TYPES OF PEOPLE, THE ENTIRE PROCESS OF URBAN EXPANSION AND RESIDENTIAL CHANGE MIGHT FLOW MORE SMOOTHLY."[3]

MCKENZIE DESCRIBES SEGREGATION AS THE "CONCENTRATION OF POPULATION TYPES WITHIN THE COMMUNITY."[4] IN OTHER WORDS, IT IS THE PROCESS BY WHICH THE POPULATION IN A COMMUNITY BECOMES GEOGRAPHICALLY DIFFERENTIATED INTO

---

1. SHILS, EDWARD A., THE PRESENT STATE OF AMERICAN SOCIOLOGY. GLENCOE, ILL.: THE FREE PRESS, 1948. P. 8.

2. ALIHAN, MILLA A., SOCIAL ECOLOGY: A CRITICAL ANALYSIS: NEW YORK: COLUMBIA UNIVERSITY PRESS, 1938. PP. 136-7.

3. RIEMER, SVEND. THE MODERN CITY. NEW YORK: PRENTICE-HALL, 1952. P. 134.

4. MCKENZIE, R. E., "THE SCOPE OF HUMAN ECOLOGY," IN THE URBAN COMMUNITY, EDITED BY ERNEST W. BURGESS. CHICAGO: UNIVERSITY OF CHICAGO PRESS, 1926. P. 179.

SOCIALLY DIST

MCKENZIE CONS

THE "PROCESS O

CHARACTERIZED

AND LAST STAGE

TWO CONCEPTS T

ANOTHER. BURG

WHICH INVASION

IMPLIED I

AND THE OTHER

WIDER COMMUNIT

SPATIALLY DIST

TYPES WHICH GO

FERS TO WHEN HE

MENTS OF THE P

INCLUDED IN ERI

WHICH REVEALS T

---

5. IBID., P.

6. IBID., P.

7. ALIHAN, OP.

8. BURGESS, ER
THE ANNALS
VOLUME 140

SOCIALLY DISTINCTIVE SPECIFIC GROUPS. WITH REGARD TO INVASION-SUCCESSION MCKENZIE CONSIDERS THE TWO PARTS OF THE PROCESS SEPARATELY. INVASION IS THE "PROCESS OF GROUP DISPLACEMENT,"[5] WHEREAS SUCCESSION IS THE PROCESS CHARACTERIZED BY "A COMPLETE CHANGE IN POPULATION TYPE BETWEEN THE FIRST AND LAST STAGES, OR A COMPLETE CHANGE OF USE."[6] ACCORDING TO ALIHAN THE TWO CONCEPTS THAT MCKENZIE SEEKS TO DISTINGUISH RUN CONFUSEDLY INTO ONE ANOTHER. BURGESS, HOWEVER, SPEAKS OF SUCCESSION AS A GENERIC PROCESS OF WHICH INVASION IS THE FIRST OF FOUR STAGES COMPRISING THE WHOLE PROCESS.

IMPLIED IN THE NOTION OF SEGREGATION ARE TWO ASPECTS, ONE QUANTITATIVE AND THE OTHER QUALITATIVE.[7] THE FIRST SUGGESTS THE SEPARATION FROM THE WIDER COMMUNITY AND THE SUBSEQUENT GROUPING TOGETHER OF POPULATION INTO SPATIALLY DISTINCT UNITS. THE SECOND IS THE SELECTION OF THE PARTICULAR TYPES WHICH GO TO CONSTITUTE THESE UNITS. THE LATTER IS WHAT BURGESS REFERS TO WHEN HE SPEAKS OF "THE SORTING AND SIFTING OF THE DIFFERENT ELEMENTS OF THE POPULATION IN THE GROWTH OF THE CITY."[8] BOTH IDEAS ARE INCLUDED IN ERICKSEN'S DEFINITION OF SEGREGATION: "THE SELECTIVE PROCESS WHICH REVEALS THE TENDENCY OF LIKE UNITS TO FORM INTO CLUSTERS, THESE

---

5. IBID., P. 180.

6. IBID., P. 181.

7. ALIHAN, OP. CIT., P. 158.

8. BURGESS, ERNEST W., "RESIDENTIAL SEGREGATION IN AMERICAN CITIES," THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. VOLUME 140 (NOVEMBER, 1928) P. 105.

UNITS TENDING

OF VARIOUS LI

IN A FIN

ESSES GIBBARD

OF REFERENCE A

POSITION WITH

ON THE OTHER

THERE IS A REP

HE DEFINES A S

FROM OTHER MIN

CITY, AND WHOS

THAT THEY GIVE

TERM "SUCCESSI

POPULATION TYP

ONE IN A FUNCT

TEMPORAL SERIE

THIS TRANSITIO

AREA AND THE E

---

9. ERICKSEN, 1954. P.

10. GIBBARD, (UNPUBLIS

11. IBID. P.

12. GIBBARD, AMERICAN

UNITS TENDING TO BE QUITE SIMILAR IN ECONOMIC STRENGTH AND IN TERMS OF VARIOUS LIKES AND DISLIKES, IS CALLED THE SEGREGATIVE PROCESS."[9]

IN A FINAL ATTEMPT TO DISTINGUISH THESE TWO BASIC ECOLOGICAL PROCESSES GIBBARD SUGGESTS THAT THE PROCESS OF SEGREGATION HAS AS ITS UNIT OF REFERENCE A SOCIAL OBJECT (I.E., A STORE, A FAMILY, ETC.) SEEKING ITS POSITION WITH REFERENCE TO OTHER SOCIAL OBJECTS. INVASION-SUCCESSION, ON THE OTHER HAND, HAS AS ITS UNIT OF OBSERVATION AN AREA WITHIN WHICH THERE IS A REPLACEMENT OF PEOPLES AND CULTURE TRAITS.[10] ON THIS BASIS HE DEFINES A SEGREGATED GROUP AS "ONE WHICH IS CLEARLY DIFFERENTIATED FROM OTHER MINORITY GROUPS AND FROM THE DOMINANT POPULATION TYPE OF A CITY, AND WHOSE MEMBERS INHABIT A CLEARLY DELIMITED AREA IN SUCH NUMBERS THAT THEY GIVE THE AREA ITS PECULIAR CHARACTER."[11] GIBBARD EMPLOYS THE TERM "SUCCESSION" TO REFER TO "THE CYCLE OF CHANGE THAT OCCURS WHEN ONE POPULATION TYPE, OR ECOLOGICAL ORDER, DISPLACES THE IMMEDIATELY PRECEDING ONE IN A FUNCTIONALLY DELIMITED AREA."[12] INVASION BECOMES ONE OF A TEMPORAL SERIES OF OVERLAPPING STAGES IN THE CYCLE OF TRANSITION AND THIS TRANSITION ALWAYS INVOLVES A BREAKDOWN OF THE INTEGRATION OF THE AREA AND THE EMERGENCE OF A NEW PATTERN OF DISTRIBUTION.

---

9. ERICKSEN, E. GORDON., URBAN BEHAVIOR. NEW YORK: THE MACMILLAN CO., 1954. P. 187.

10. GIBBARD, HAROLD A., RESIDENTIAL SUCCESSION: A STUDY IN HUMAN ECOLOGY. (UNPUBLISHED PH.D. DISSERTATION) UNIVERSITY OF MICHIGAN, 1938. P. 15.

11. IBID. P. 91.

12. GIBBARD, HAROLD A., "THE STATUS FACTOR IN RESIDENTIAL SUCCESSION," AMERICAN JOURNAL OF SOCIOLOGY. VOL. 46 (MAY, 1941) P. 835.

FOR PURP

SEGREGATION A

THE NEXT TWO

HOWEVER, THAT

LATED BUT AT

FOLLOWING DIS

ESS EFFECTS T

NORTHERN URBA

THE ECOLOGICAL

AS WAS ME

PROCESSES AS B

A RESULT THE P

ALSO TO FALL I

FRAMEWORK. HO

ANALYSIS OF HO

IS THE PRIMARY

GIST AND

TO CLUSTER TOG

VOLUNTARY OR I

VOLUNTARY

INITIATIV

FROM THOS

SPECT....

INDIVIDUA

13. GIST, NO

CROWELL C

For purposes of analysis, however, the two ecological processes--segregation and invasion-succession--will be dealt with separately in the next two sections of this chapter. The point should be made clear, however, that these two processes are not mutually exclusive or unrelated but at times overlap each other in meaning and operation. The following discussion of these two processes will focus on how each process effects the total residential pattern of the Negro population in a Northern urban environment.

The Ecological Process of Segregation.

As was mentioned previously, ecological theory with regard to such processes as being considered in this study is highly descriptive. As a result the points mentioned relating to the two processes may tend also to fall into a descriptive pattern rather than a purely theoretical framework. However, this will suffice for this study since a descriptive analysis of how these processes operate within a particular urban setting is the primary concern of a review of segregation and invasion-succession.

Gist and Halbert define segregation as a tendency for individuals or families to cluster together in their places of residence.[13] Segregation may be voluntary or involuntary.

> Voluntary segregation occurs when the individual, on his own initiative, seeks to live with others of his own kind and apart from those who are different in some fundamental (to him) respect....Involuntary segregation may occur in two ways. An individual or family may be required by law or custom, or both,

---

13. Gist, Noel P. and Halbert, L. A., Urban Society. New York: Thomas Y. Crowell Co., 1956. p. 173.

TO RESIC
LIVING I
CERTAIN

CONTINU

THAT LIMITED

THE PATTERN F

SOLIDLY BY PE

MIXTURE, PART

MANY PREDOMINA

IN CULTURAL C

CIRCUMSTANCES

FAMILIES LIVE

FROM CHOICE."

IN SPEAKI

HALBERT SUGGES

USE AND THE CH

THEMSELVES. P

WANTS MUST BE

WEALTH MAY TEN

IN LOW RENTAL

BUT SUCH ECONO

GATION. POOR

NEGROES WITH R

APART FROM NEGR

14. IBID., PP

15. IBID., P.

16. IBID., P.

TO RESIDE IN A DESIGNATED AREA, OR MAY BE PREVENTED FROM LIVING IN AN AREA OCCUPIED BY OTHERS WHO ARE DIFFERENT IN CERTAIN RESPECTS.[14]

CONTINUING THEIR DISCUSSION OF SEGREGATION, GIST AND HALBERT STATE THAT LIMITED SEGREGATION RATHER THAN COMPLETE SEGREGATION IS GENERALLY THE PATTERN FOUND IN URBAN AREAS. AREAS ARE NOT FORMED AND INHABITED SOLIDLY BY PERSONS OF ONE RACE OR CULTURE, BUT MORE OFTEN THERE IS A MIXTURE, PARTICULARLY ON THE FRINGES. "WHITE FAMILIES...ARE FOUND IN MANY PREDOMINANTLY NEGRO DISTRICTS. THESE FAMILIES MAY BE HIGHLY VARIED IN CULTURAL COMPOSITION, BUT USUALLY ARE IN ABOUT THE SAME ECONOMIC CIRCUMSTANCES AS THE NEGROES....IT MAY BE SUPPOSED THAT MANY WHITE FAMILIES LIVE IN NEGRO AREAS BECAUSE OF ECONOMIC NECESSITY AND NOT FROM CHOICE."[15]

IN SPEAKING OF FACTORS UNDERLYING ECOLOGICAL SEGREGATION, GIST AND HALBERT SUGGEST THAT LAND VALUES EXERT A SELECTIVE INFLUENCE ON LAND-USE AND THE CHARACTER OF OCCUPANTS BUT DO NOT EXPLAIN SEGREGATION BY THEMSELVES. PSYCHO-CULTURAL DETERMINANTS AS WELL AS ECONOMIC DETERMINANTS MUST BE CONSIDERED. FOR EXAMPLE, THEY SUGGEST THAT "POVERTY AND WEALTH MAY TEND TO SEEK THEIR OWN LEVELS--POOR FAMILIES LIVE TOGETHER IN LOW RENTAL AREAS, APART FROM RICH FAMILIES IN HIGH RENTAL DISTRICTS—BUT SUCH ECONOMIC DETERMINISM DOES NOT ACCOUNT FOR OTHER FORMS OF SEGREGATION. POOR NEGROES DO NOT NECESSARILY LIVE WITH POOR WHITES, NOR RICH NEGROES WITH RICH WHITES, ALTHOUGH IMPOVERISHED NEGRO FAMILIES MAY LIVE APART FROM NEGRO FAMILIES THAT ARE WEALTHY OR WELL-TO-DO."[16]

---

14. IBID., PP. 173-4.

15. IBID., P. 176.

16. IBID., P. 177.

GIST A

ECOLOGICAL C

IN AREAS OCC

STATUS--IN O

CAL AND GEOG

NATURAL AREAS

FORMATION OF

THAT ECOLOGIC

ESSENTIALLY S

WITH PART

ALBERT STATE

CREASINGLY SEG

AN INCREASING

IN THE LARGER

ERAL, WITH A M

STATE THAT "EA

MORE OR LESS D

WELL AS IN ITS

AS A WHOLE."[1

ERICKSEN

SULTING IN THE

FORE, BECOMES

---

17. IBID., P.

16. IBID., P.

GIST AND HALBERT EMPLOY THE CONCEPT "NATURAL AREA" TO REFER TO AN ECOLOGICAL CLUSTER RESULTING FROM THE TENDENCY OF INDIVIDUALS TO RESIDE IN AREAS OCCUPIED BY PEOPLE OF SIMILAR RACIAL, CULTURAL, OR ECONOMIC STATUS--IN OTHER WORDS, THE PRODUCT OF THE SEGREGATION PROCESS. PHYSICAL AND GEOGRAPHIC FACTORS INFLUENCE THE SIZE, SHAPE, AND LOCATION OF NATURAL AREAS MORE IN THE SENSE OF LIMITING RATHER THAN DETERMINING THE FORMATION OF SUCH AREAS. GIST AND HALBERT, ON THE OTHER HAND, EMPHASIZE THAT ECOLOGICAL SEGREGATION AND THE FORMATION OF NATURAL AREAS ARE ESSENTIALLY SOCIAL IN CHARACTER.[17]

WITH PARTICULAR REGARD FOR THE SEGREGATION OF NEGROES, GIST AND HALBERT STATE THAT NEGROES IN MANY NORTHERN CITIES ARE BECOMING INCREASINGLY SEGREGATED IN THE SENSE THAT NEGRO DISTRICTS ARE EXHIBITING AN INCREASING PROPORTION OF NEGRO RESIDENTS. THE PATTERN OF SEGREGATION IN THE LARGER AMERICAN CITIES IS USUALLY NOT ONE NEGRO DISTRICT, BUT SEVERAL, WITH A MAJOR AREA AND A NUMBER OF MINOR AREAS VARYING IN SIZE. THEY STATE THAT "EACH OF THESE AREAS HAS ITS OWN HISTORICAL PAST AND EACH IS MORE OR LESS DISTINCT IN ITS SOCIAL AND OCCUPATIONAL CHARACTERISTICS AS WELL AS IN ITS RELATIONSHIPS TO ADJOINING DISTRICTS OR TO THE COMMUNITY AS A WHOLE."[18].

ERICKSEN DESCRIBES THE SEGREGATIVE PROCESS AS A SELECTIVE ONE RESULTING IN THE FORMATION OF CLUSTERS OF LIKE UNITS. SEGREGATION, THEREFORE, BECOMES "A MATTER OF POINTING OUT THE CONCENTRATION OF TYPES OF

---

17. IBID., P. 178.

18. IBID., P. 181.

POPULATION, P

IN COMPARING

GESTS THAT IT

SEGREGATION T

REGIONS, BUT

URING PHYSICA

CANNOT IGNORE

GENERALIZES T

BARRIERS. ERI

UNWITTING STRU

LOCATION. THR

IN THE INTERWO

MINED BY OCCUP

AND OTHER INDI

IN THE COMMUNI

CONCEPTIONS OF

THEM."[20]

ERICKSEN

AREAS. IN REFE

THEIR DELINEATI

---

19. ERICKSEN,

20. IBID., P.

21. IBID., PP

POPULATION, PHYSICAL STRUCTURES, AND UTILITIES WITHIN A NATURAL AREA."[19] IN COMPARING NEGROES IN THE NORTH WITH THOSE IN THE SOUTH, ERICKSEN SUGGESTS THAT IT IS NOT SIMPLY A MATTER OF MORE SEGREGATION VERSUS LESS SEGREGATION THAT CREATES A DIFFERENCE IN DISCRIMINATION BETWEEN THE TWO REGIONS, BUT IT IS A MATTER OF DIFFERENT TYPES OF SEGREGATION. IN MEASURING PHYSICAL DISTANCE BETWEEN PEOPLE HE SUGGESTS THAT THE ECOLOGICAL CANNOT IGNORE SOCIAL DISTANCE. SPEAKING IN PHYSICAL TERMS, HOWEVER, HE GENERALIZES THAT PHYSICAL BARRIERS AND EMPTY SPACES DO FUNCTION AS SOCIAL BARRIERS. ERICKSEN RELATES SEGREGATION TO "THE DELIBERATE AS WELL AS UNWITTING STRUGGLES BETWEEN GROUPS AS THEY SEEK TO OCCUPY THEIR OPTIMUM LOCATION. THROUGH THIS PROCESS GROUPS AND INSTITUTIONS FIND THEIR 'NICHE' IN THE INTERWOVEN AGGREGATE OF THE CITY. THIS OPTIMUM POSITION IS DETERMINED BY OCCUPATION, INCOME, RELIGION, POLITICAL AFFILIATION, EDUCATION, AND OTHER INDICES OF SOCIAL STANDING....THROUGH OBSERVING THE LOCATION IN THE COMMUNITY WHERE A PERSON SETTLES, WE GAIN EARLY INSIGHT INTO HIS CONCEPTIONS OF AMBITION AND SUCCESS AS WELL AS HIS CHOICES FOR ACHIEVING THEM."[20]

ERICKSEN EQUATES THE PROCESS OF SEGREGATION TO THE FORMATION OF NATURAL AREAS. IN REFERENCE TO NATURAL AREAS HE LISTS THREE FACTORS INVOLVED IN THEIR DELINEATION: THE CENTER, THE PERIPHERY, AND THE FLOW OF ACTIVITY.[21]

---

19. ERICKSEN, E. GORDON, OP. CIT., P. 188.

20. IBID., P. 192.

21. IBID., PP. 199-201.

QUEEN AN

SEGREGATION W

STATES:

(1) IN M
MARKED, BUT
IS, MOST OF
ALMOST ENTI
FOUND IN DI
NEW YORK, C
(2) IN CE
ATLANTA, NE
THE CITY BES
LARGE BORDER
BALTIMORE, L
(3) IN SO
S.C., THE LA
THIS IS DUE
(4) IN A
PEOPLE ARE U
SCATTERED EV
GARY, AKRON,

BURGESS I
TREATS THE RES
NOMENON OF URB
PROCESS OF SEG
CHARACTER OF T
"CONCENTRIC ZO
CITIES NEGROES
FURTHERMORE, N

---

22. QUEEN, ST
MCGRAW-HI

23. BURGESS,

Queen and Carpenter have listed four major patterns of racial segregation which have been identified in the cities of the United States:

> (1) In most northern cities the concentration of Negroes is very marked, but it involves a small part of the whole urban area; that is, most of the Negroes are found in a very limited section devoted almost entirely to their own race and relatively few of them are found in districts predominantly white. This is true, e.g., of New York, Chicago, and Detroit.
>
> (2) In certain southern cities, such as Richmond, Memphis, and Atlanta, Negroes are highly concentrated in several large parts of the city besides being lightly scattered in other sections. Of the large border cities, Washington conforms to the second pattern, while Baltimore, Louisville, and St. Louis conform to the first.
>
> (3) In some of the older cities in the deep south, like Charleston, S.C., the large Negro population is scattered throughout the city. This is due to the large number of servant houses and alley dwellings.
>
> (4) In a number of northern cities with rather few Negroes, these people are usually found in a small part of the city and somewhat scattered even within this area. Such is the case in Minneapolis, Gary, Akron, and Des Moines.[22]

Burgess in his article, "Residential Segregation in American Cities,"[23] treats the residential separation of white and Negro not as a unique phenomenon of urban life but as one case among many of the workings of the process of segregation. What can be said, therefore, of the segregation character of the Negro must be abstracted from his broader theory of "concentric zones." Accordingly Burgess states that in most northern cities Negroes seem to concentrate mostly in the "zone of transition." Furthermore, Negroes as a group find a place of most favorable entry

---

22. Queen, Stuart A. and Carpenter, David B., The American City. New York: McGraw-Hill Book Co., 1953. p. 150.

23. Burgess, Ernest W., op. cit.

WHICH TENDS T

THE NEGRO POP

GREAT ARTERIA

THESE POPULAT

BUT THE MOBIL

GROUPS, IS RE

WITH THE INVA

WHAT HAS

BEEN GIVEN PRE

IZE THE RELAT

AREA. FRAZIER

NEGRO COMMUNIT

BURGESS. FRAZ

HARLEM RESPECT

THE NEGRO POPU

OF THE CITY.

OF FRAZIER'S F

NEGRO COMMUNIT

IN CHICAGO

SEGMENT R

SEVEN FAI

73RD ST.,

AND CONSI

WHO WERE

---

24. FRAZIER, E

THE MACMI

"NEGRO HA

VOL. 43,

WHICH TENDS TO BE NEAR THE CENTRAL BUSINESS DISTRICT. THE MOVEMENT OF THE NEGRO POPULATION FROM THIS "PORT OF ENTRY" APPEARS TO FOLLOW THE GREAT ARTERIAL BUSINESS STREETS OF THE CITY AS HIGHWAYS OF INVASION. THESE POPULATION MOVEMENTS TAKE THE FORM OF SUCCESSIVE WAVES OF INVASION, BUT THE MOBILITY OF THE NEGRO, IN CONTRAST TO OTHER ETHNIC OR CULTURAL GROUPS, IS RELATIVELY LOW BECAUSE OF THE STRONG RESISTANCE ENCOUNTERED WITH THE INVASION OF WHITE NEIGHBORHOODS.

WHAT HAS BEEN STATED ABOVE CONCERNING THE SEGREGATION PROCESS HAS BEEN GIVEN PREDOMINANTLY IN GENERAL TERMS AND HAS ATTEMPTED TO CHARACTERIZE THE RELATIONSHIP OF THE NEGRO SEGREGATED COMMUNITY TO THE LARGER URBAN AREA. FRAZIER, HOWEVER, FOCUSED ATTENTION ON THE INTERNAL PATTERN OF THE NEGRO COMMUNITY AND UTILIZED A "ZONE" METHOD RESEMBLING THAT EMPLOYED BY BURGESS. FRAZIER FOUND TWO GENERAL PATTERNS EXISTING IN CHICAGO AND HARLEM RESPECTIVELY.[24] THE STUDY OF CHICAGO REVEALED CHARACTERISTICS OF THE NEGRO POPULATION CORRESPONDING TO THOSE OF WHITES IN THE SAME ZONES OF THE CITY. QUEEN AND CARPENTER GIVE THE FOLLOWING SUMMARY STATEMENT OF FRAZIER'S FINDINGS OF THE INTERNAL PATTERN OF THE CHICAGO SOUTH SIDE NEGRO COMMUNITY.

> IN CHICAGO, FRAZIER FOUND THE PRINCIPAL NEGRO DISTRICT TO BE A SEGMENT REACHING FROM THE HEART OF THE CITY TO THE SOUTH THROUGH SEVEN FAIRLY DISTINCT ZONES. PROCEEDING FROM THE LOOP TOWARD 73RD ST., CERTAIN CHARACTERISTIC CHANGES OCCURRED PROGRESSIVELY AND CONSISTENTLY. FIRST OF ALL, THE PERCENTAGE OF FAMILY HEADS WHO WERE BORN IN THE SOUTH DECREASED. SECOND, THE PERCENTAGE

---

24. FRAZIER, E. FRANKLIN, THE NEGRO IN THE UNITED STATES. NEW YORK: THE MACMILLAN CO., 1949. PP. 256-66, AND FRAZIER, E. FRANKLIN, "NEGRO HARLEM: AN ECOLOGICAL STUDY," AMERICAN JOURNAL OF SOCIOLOGY. VOL. 43, 1937-38, PP. 72-88.

OF ADULT
OF ILLIT
GAGED I
TRADES I
DOMESTIC
OF WOME
MARRIED
REMAINED
HOME OWN
AND PERS
SMALL C
AND RECE
DID THE
DECREASE
ALL, THE
IF SUCH
THE CHAR
THE CENT
HOUSES W
ISHED NEW
AREA OF T
PLACES, A
DISTRICTS

IN NEW YORK FR

ITS OWN WHICH

WITHIN A CITY.

FINDINGS CONCE

CENTERING
COMMUNITY
MUNITY HA
PUSHED OU
SERIES OF
NEGRO WAS
THE FIFTH
NUMEROUS
A SIMILAR
NUMBER OF
OF CHILDR

---

25. QUEEN, ST

> OF ADULTS WHO WERE MULATTOES INCREASED. THE RELATIVE NUMBER OF ILLITERATES DECREASED; THE RELATIVE NUMBER OF PERSONS ENGAGED IN PROFESSIONAL AND WHITE-COLLAR OCCUPATIONS AND SKILLED TRADES INCREASED; WHILE THE PROPORTION IN SEMI-SKILLED TRADES, DOMESTIC SERVICE AND UNSKILLED LABOR DECREASED. THE PERCENTAGE OF WOMEN GAINFULLY EMPLOYED DECREASED; THE PERCENTAGE OF MEN MARRIED INCREASED, BUT THE RELATIVE NUMBER OF MARRIED WOMEN REMAINED ABOUT THE SAME. IN THE SUCCESSION OF ALL SEVEN ZONES, HOME OWNERSHIP INCREASED STRIKINGLY AND THE NUMBER OF FAMILIES AND PERSONS PER DWELLING DECREASED. THE RELATIVE NUMBER OF SMALL CHILDREN INCREASED. THE PERCENTAGE OF FAMILIES ON RELIEF AND RECEIVING CARE FROM FAMILY WELFARE AGENCIES DECREASED, AS DID THE INCIDENCE OF FAMILY DESERTION. THERE WAS LIKEWISE A DECREASE IN ILLEGITIMACY AND IN JUVENILE DELINQUENCY. ALL IN ALL, THEREFORE, FRAZIER FOUND THE NEGRO COMMUNITY OF CHICAGO, IF SUCH IT MAY BE CALLED, CONFORMING IN ITS SEVERAL ZONES TO THE CHARACTERISTICS DISPLAYED BY THE ENTIRE CITY. CLOSE TO THE CENTRAL BUSINESS DISTRICT, HE FOUND A SECTION IN WHICH HOUSES WERE DILAPIDATED AND OCCUPIED IN THE MAIN BY IMPOVERISHED NEWCOMERS FROM THE SOUTH. NEXT CAME THE "BRIGHT LIGHT" AREA OF THE BLACK BELT, WITH ITS THEATERS, CABARETS, GAMBLING PLACES, AND HOUSES OF PROSTITUTION. THERE WERE FOLLOWED BY DISTRICTS OF PROGRESSIVELY BETTER SOCIAL AND ECONOMIC STATUS.[25]

IN NEW YORK FRAZIER FOUND THE NEGRO COMMUNITY OF HARLEM HAD A PATTERN OF ITS OWN WHICH CORRESPONDED TO THAT OF THE CITY AS A WHOLE, I.E., "A CITY WITHIN A CITY." QUEEN AND CARPENTER GIVE THE FOLLOWING SUMMARY OF FRAZIER'S FINDINGS CONCERNING HARLEM'S ZONE PATTERN:

> CENTERING ABOUT 125TH ST. AND SEVENTH AVE., HE FOUND A NEGRO COMMUNITY WITH ITS OWN SYSTEM OF CONCENTRIC CIRCLES. THIS COMMUNITY HAD GROWN UP FIRST ABOUT THE INDICATED CENTER AND THEN PUSHED OUT IN ALL DIRECTIONS UNTIL IT COULD BE DESCRIBED AS A SERIES OF FIVE ZONES. THE PERCENTAGE OF THE POPULATION THAT WAS NEGRO WAS HIGHEST IN THE FIRST, OR CENTRAL ZONE, AND LOWEST IN THE FIFTH. BUILDINGS NOT DEVOTED TO RESIDENTIAL USES WERE MOST NUMEROUS IN THE FIRST ZONE AND FEWEST IN THE FIFTH. THERE WAS A SIMILAR DECLINE FROM THE CENTER TO THE PERIPHERY IN THE RELATIVE NUMBER OF ROOMING HOUSES AND LODGINGHOUSES. THE RELATIVE NUMBER OF CHILDREN INCREASED FROM THE FIRST TO THE FIFTH ZONE, AS DID

---

25. QUEEN, STUART A. AND CARPENTER, DAVID B., OP. CIT., PP. 150-1.

THE PER
DEATHS
EQUAL; A
IN THE
DISTRIB
TO THE
IN CHICA
SPATIAL
ALTOGET
IN CHICA
WITH OT
IN A DIS
IS ORDIN

SEGREGATION A

AS CAN B

SEVERAL APPRO

FROM THE OTHE

INTENTION IN

SCRIPTIVE STU

HISTORICAL RO

BE DISCUSSED,

NORTHERN CITIE

TO A BETTER UN

RAPIDS.

IN BRIEF

THE NEGRO GHET

WORLD WAR I A

NORTHERN CITIE

26. IBID., P.

THE PERCENTAGE OF ADULTS WHO WERE MARRIED. IN THE FIRST ZONE DEATHS EXCEEDED BIRTHS IN NUMBER; IN THE SECOND THEY WERE ABOUT EQUAL; AND IN THE NEXT THREE ZONES THERE WAS A STEADY INCREASE IN THE RATIO OF BIRTHS TO DEATHS. DELINQUENCY SHOWED AN UNEVEN DISTRIBUTION, BUT DEPENDENCY DECLINED CONSISTENTLY FROM THE CENTER TO THE OUTER EDGE OF THIS NEGRO COMMUNITY. THUS THE DEVELOPMENTS IN CHICAGO AND NEW YORK HAVE BEEN RATHER DIFFERENT SO FAR AS THE SPATIAL DISTRIBUTION IS CONCERNED. THE REASONS FOR THIS ARE NOT ALTOGETHER CLEAR, BUT THEY ARE PERHAPS RELATED TO THE FACT THAT IN CHICAGO, NEGROES PUSHED OUT FROM THE HEART OF THE CITY, ALONG WITH OTHER ETHNIC GROUPS, WHILE IN NEW YORK THEY WERE CONCENTRATED IN A DISTRICT AT SOME DISTANCE FROM THE CENTER OF THE CITY AS THIS IS ORDINARILY CONCEIVED.[26]

SEGREGATION AND THE NEGRO GHETTO.

AS CAN BE OBSERVED IN THIS DISCUSSION OF SEGREGATION AS A PROCESS, SEVERAL APPROACHES HAVE BEEN PRESENTED, WITH EACH SHOWING SOME DIFFERENCE FROM THE OTHERS. SOME HAVE BEEN MORE THEORETICAL THAN DESCRIPTIVE. THE INTENTION IN THIS SECTION IS TO PASS FROM THE ABSTRACT TO THE MORE DESCRIPTIVE STUDIES OF THE NEGRO AND THE SEGREGATED GHETTO. FIRST, THE HISTORICAL ROOTS AND TRENDS OF THE DEVELOPMENT OF THE NEGRO GHETTO WILL BE DISCUSSED, AND THEN, THE GENERAL SEGREGATION PATTERNS FOUND IN MOST NORTHERN CITIES WILL BE DESCRIBED IN TERMS OF WHAT THEY CAN CONTRIBUTE TO A BETTER UNDERSTANDING OF THE SEGREGATION PATTERN AS FOUND IN GRAND RAPIDS.

IN BRIEF ONLY WITHIN THE LAST FIFTY YEARS HAS THE DEVELOPMENT OF THE NEGRO GHETTO OCCURRED WITHIN OUR NORTHERN CITIES. PREVIOUS TO WORLD WAR I A RELATIVELY SMALL PROPORTION OF THE POPULATION OF THE NORTHERN CITIES WERE NEGRO. THE PATTERN OF NEGRO RESIDENCE HAD NOT

---

26. IBID., P. 151.

CRYSTALLIZED

GHETTO," OR

BORHOODS OR

OF NEGROES BE

THE NORTHERN

1920'S RESULT

HOUSING. FOR

WELL ESTABLIS

FROM THE ESTA

IN DENSITY BU

OF THE NORTH

WAS RESUMED D

THE WAR AND T

RENEWAL OF NE

SMALL EXPANSIO

GREATER OVERCR

HOWEVER, A NEW

TREND OF WHITE

MIGRATION OF N

AN AVERAGE OF

EVERY THREE WH

---

27. BOGUE, DO

OHIO: MI

CRYSTALLIZED INTO WHAT IS NOW KNOWN AS THE "BLACK BELT," THE "NEGRO GHETTO," OR "BLACK METROPOLIS." NEGROES OFTEN LIVED IN MIXED NEIGHBORHOODS OR IN SCATTERED SEGREGATED CLUSTERS. THE NORTHWARD MIGRATION OF NEGROES BEGAN WITH WORLD WAR I AND THOUSANDS OF MIGRANTS ARRIVED IN THE NORTHERN CITIES. THE FLOW OF MIGRATION CONTINUED INTO THE PROSPEROUS 1920'S RESULTING IN INCREASED COMPETITION BETWEEN WHITES AND NEGROES FOR HOUSING. FOR CHICAGO THE SPATIAL OUTLINE OF THE NEGRO COMMUNITY WAS WELL ESTABLISHED BY 1920. WITH MORE ARRIVALS THE NEGRO AREAS, STARTING FROM THE ESTABLISHED COLORED SECTIONS, NOT ONLY FILLED UP AND INCREASED IN DENSITY BUT BEGAN TO SPREAD. THIS INFLUX OF NEGROES INTO THE CITIES OF THE NORTH WAS RETARDED SOMEWHAT BY THE DEPRESSION OF THE 1930'S BUT WAS RESUMED DURING AND AFTER WORLD WAR II. THE LABOR SHORTAGE DURING THE WAR AND THE POST-WAR PROSPERITY WERE INFLUENTIAL FACTORS IN THE RENEWAL OF NEGRO MIGRATION TO THE NORTH. WITH A DISPROPORTIONATELY SMALL EXPANSION OF THE NEGRO GHETTOS, ADDITIONAL MIGRANTS RESULTED IN GREATER OVERCROWDING AND CONGESTION. IN THE DECADE OF 1940 TO 1950, HOWEVER, A NEW PATTERN BEGAN TO MANIFEST ITSELF. COMBINED WITH THE TREND OF WHITES MOVING TO THE SUBURBS OF CENTRAL CITIES, THE CONTINUED MIGRATION OF NEGROES INTO CENTRAL CITIES IN THE NORTH HAS RESULTED IN AN AVERAGE OF TWO NON-WHITE PERSONS MOVING INTO THE CENTRAL CITY FOR EVERY THREE WHITE PERSONS MOVING OUT.[27]

---

27. BOGUE, DONALD J., COMPONENTS OF POPULATION CHANGE, 1940-50. MIAMI, OHIO: MIAMI UNIVERSITY, 1957. P. 34.

DUNCAN

OF CHICAGO B

WITH OTHER N

SEE A DIRECT

FROM 1920 TO

OF THE NEGRO

A CONSOLIDATI

EXCLUSIVELY N

TO INCREASE,

EVER, AREAL E

AS A RESULT, N

ALSO BECAME M

WEAVER I

TO "PRESTIGE-

AS THERE WAS

OF RAPID TRAN

FAMILIES OCCU

OF TRANSPORTA

THUS RESULTIN

WHILE A SMALL

CITIES, MANY

---

28. DUNCAN, A STUDY PRESS, 1

29. WEAVER, VOL. 36,

Duncan and Duncan's study[28] deals only with the Negro population of Chicago but many similarities of the development of the Negro ghetto with other northern metropolitan areas have been shown. The authors see a direct relationship of the continued Negro population increase from 1920 to 1950 to its spatial counterpart, the residential pattern of the Negro community. In the decades following 1920 there developed a consolidation of the "Black Belt," the core of which became an almost exclusively Negro residential area. As the Negro population continued to increase, there occurred an areal expansion of the Black Belt. However, areal expansion never quite kept pace with population growth, and, as a result, Negro residential areas, as they became more consolidated, also became more densely populated.

Weaver in his article[29] brings in the effect of movements of whites to "prestige-laden, single-class, homogeneous suburban areas." As long as there was ample space within the city limits and no effective modes of rapid transportation, most of the outward movement of middle-class families occurred within the city proper. However, more effective modes of transportation have encouraged the establishment of such suburban areas, thus resulting in a heavy movement of whites out of the central cities. While a smaller number of whites moved into than moved out of central cities, many non-whites have entered the in-lying areas. "These move-

---

28. Duncan, O. D. and Duncan, Beverly, The Negro Population of Chicago: A Study of Residential Succession. Chicago: University of Chicago Press, 1957.

29. Weaver, Robert C., "Class, Race and Urban Renewal," Land Economics. Vol. 36, Number 3 (August, 1960) pp. 325-51.

MENTS HAVE B

OUT THE NORT

OF HOUSING U

OF HOUSING.

WERE FORMERL

WHITES BUT S

SPITE OF THE

THIRD OF A MI

SUBURBS MAY B

ANOTHER

RESIDENTIAL S

IN THE NUMBER

CONTAIN MOST

WITH AN INCREA

AND MORE INTEN

IN SUPPOR

DISTRIBUTION O

THREE CITIES T

NON-WHITE POPU

CREASING PROPO

WITH PROPORTIO

---

30. IBID., P

31. IBID., P

MENTS HAVE BROUGHT INTERESTING CHANGES IN THE HOUSING MARKET. THROUGHOUT THE NORTH AND WEST, NON-WHITES HAVE ACQUIRED A MUCH LARGER NUMBER OF HOUSING UNITS AND FREQUENTLY A MORE DIVERSIFIED AND A BETTER QUALITY OF HOUSING. IN THE PROCESS THEY HAVE EXPANDED INTO MANY AREAS WHICH WERE FORMERLY ALL WHITE."[30] SURPRISINGLY ENOUGH, HOWEVER, NOT ONLY WHITES BUT SOME NEGROES HAVE BEEN ABLE TO ESCAPE INTO THE SUBURBS IN SPITE OF THE STRONG RACIAL SEGREGATION THERE. THE FACT THAT ABOUT ONE-THIRD OF A MILLION NEGROES DID JOIN WHITES IN THE 1940-50 JUMP TO THE SUBURBS MAY BE AN INDICATION OF A NEW TREND SOON TO DEVELOP.[31]

ANOTHER TREND WHICH MAY AFFECT, ACCORDING TO WEAVER, THE PRESENT RESIDENTIAL SEGREGATION PATTERN OF NEGROES IS THE CONTINUOUS INCREASE IN THE NUMBER OF MIDDLE-CLASS NEGROES. PREVIOUSLY, THE TREND WAS TO CONTAIN MOST MIDDLE-CLASS NEGROES WITHIN THE SEGREGATED NEGRO GHETTO. WITH AN INCREASING NUMBER OF MIDDLE-CLASS NEGROES MAY COME A GREATER AND MORE INTENSIVE DEMAND FOR HOUSING IN "DESIRABLE" AREAS OF THE CITY.

IN SUPPORT OF WEAVER'S REFERENCE ABOVE CONCERNING TRENDS IN THE DISTRIBUTION OF NEGROES IN CITIES, REDICK FOUND UPON COMPARING TWENTY-THREE CITIES THAT "THE PATTERN OF CHANGE IN PERCENTAGE DISTRIBUTION OF NON-WHITE POPULATION BY ZONE BETWEEN 1940 AND 1950...TENDED TO BE DECREASING PROPORTIONS OF NON-WHITES IN THE INNER-MOST ZONES OF THE CITY, WITH PROPORTIONATE INCREASES OF A SUBSTANTIAL NATURE IN THE MIDDLE ZONES,

---

30. IBID., P. 238.

31. IBID., P. 239.

AND INCREASE

OTHER WORDS,

NON-WHITE P

IN CONT

EVER, COWGIL

1940 AND 195

IS SHOWN TO

WHICH CONTRIB

IN SEGREGATI

THE TWO

ARE NOT NECES

ANSWER:

> BECAUSE
> AREAS MO
> NON-WHITE
> INTERRAC
> OF NON-W
> TO LIVE

THIS SUGGESTS,

WHITE AREAS, S

REPLACED THEM,

DISTANCE FROM

---

32. REDICK, R
CITIES, 1
1956) PP.

33. COWGILL, D
IN AMERICA

34. MCENTIRE,
UNIVERSITY

AND INCREASES OF A LESSER EXTENT IN SOME OF THE PERIPHERAL ZONES. IN OTHER WORDS, A PATTERN OF DECENTRALIZATION SEEMED TO BE PRESENT FOR NON-WHITE POPULATION ALSO."[32]

IN CONTRAST TO THIS DECENTRALIZATION OF NEGROES IN CITIES, HOWEVER, COWGILL[33] GIVES EVIDENCE FROM A REVIEW OF 185 CITIES THAT BETWEEN 1940 AND 1950 RESIDENTIAL SEGREGATION HAS CONCLUSIVELY INCREASED. THIS IS SHOWN TO BE MORE TRUE OF CITIES WITHIN THE VICINITY OF THE GREAT LAKES WHICH CONTRIBUTED 10 OF THE TOP 20 CITIES SHOWING THE HIGHEST INCREASES IN SEGREGATION ACCORDING TO COWGILL'S INDEX.

THE TWO PROCESSES OF INCREASING SEGREGATION AND DECENTRALIZATION ARE NOT NECESSARILY CONTRADICTORY. MCENTIRE SEEMINGLY SUPPLIES THE ANSWER:

> BECAUSE THE WHITE POPULATION MOVED OUT OF THE NON-WHITE EXPANSION AREAS MORE RAPIDLY THAN NON-WHITES CAME IN, THE ENLARGEMENT OF NON-WHITE LIVING SPACE PRODUCED LITTLE IF ANY INCREASE IN THE INTERRACIAL OCCUPANCY OF HOUSING AREAS. ALTHOUGH THE DENSITY OF NON-WHITE POPULATION DECLINED, THE TENDENCY FOR NON-WHITES TO LIVE IN SEPARATE AREAS INCREASED.[34]

THIS SUGGESTS, THEREFORE, THAT WHILE NEGROES WERE ALLOWED TO EXPAND INTO WHITE AREAS, SINCE WHITES MOVED OUT OF THE AREAS MORE RAPIDLY THAN NEGROES REPLACED THEM, AS A RESULT, NEGROES CONTINUED TO REMAIN AT A SPATIAL DISTANCE FROM WHITES, I.E., THE DEGREE OF SEGREGATION INCREASED.

---

32. REDICK, RICHARD W., "POPULATION GROWTH AND DISTRIBUTION IN CENTRAL CITIES, 1940-50," AMERICAN SOCIOLOGICAL REVIEW. VOL. 21 (FEBRUARY, 1956) PP. 39-40.

33. COWGILL, DONALD O., "TRENDS IN RESIDENTIAL SEGREGATION OF NON-WHITES IN AMERICAN CITIES, 1940-50," ASR. VOL. 21 (FEBRUARY, 1956) PP. 43-47.

34. MCENTIRE, DAVIS, RESIDENCE AND RACE. BERKELEY AND LOS ANGELES, CALIF. UNIVERSITY OF CALIFORNIA PRESS, 1960. PP. 52-3.

THE FI

SEGREGATION

SENTING THE

RESIDENCE PA

GROUPS IN A

THE MEMBERS

THEY ARE ALM

LIVE IN THES

MIXED AREAS,

PATTERN OF T

FOLLOWS:

CHARACT
NON-WHI
THIS AR
CESSIVE
TRACTS.
EACH CI
REPRESE
SECONDA
THEY TE
ONE FOR
RESIDEN
SEGREGA
WHITE C
GATED A
ADJACEN
SIMILAR

---

35. IBID.

36. IBID.,
POPULAT
DES

SEG
CON
MIX
DIS
EXC

THE FINAL CONTRIBUTION TO AN UNDERSTANDING OF THE PROCESS OF SEGREGATION IS MCENTIRE.[35] HIS STUDY OF TWELVE LARGE CITIES REPRESENTING THE MAJOR REGIONS OF THE COUNTRY FOCUSES ON THE RESPECTIVE RESIDENCE PATTERN OF NEGROES. THE RESIDENTIAL SEGREGATION OF MINORITY GROUPS IN AMERICAN CITIES IS RARELY, IF EVER, ABSOLUTE. TYPICALLY THE MEMBERS OF A MINORITY GROUP OCCUPY ONE OR MORE AREAS IN WHICH THEY ARE ALMOST THE ONLY RESIDENTS, BUT NOT ALL MEMBERS OF THE GROUP LIVE IN THESE SEGREGATED DISTRICTS. OTHERS MAY LIVE IN VARIOUSLY MIXED AREAS, AND A FEW ARE FOUND SCATTERED THROUGH THE CITY. THE PATTERN OF THE SEGREGATED NEGRO COMMUNITY AS MCENTIRE SEES IT IS AS FOLLOWS:

> CHARACTERISTIC OF ALL CITIES STUDIED IS A PRINCIPAL AREA OF NON-WHITE CONCENTRATION NEAR THE BUSINESS CENTER OF THE CITY. THIS AREA CONSISTS OF A "SEGREGATED" CORE SURROUNDED BY SUCCESSIVE ZONES OF "CONCENTRATED," "MIXED," AND "DISPERSION" TRACTS. IN ADDITION TO THE MAIN AREA OF NON-WHITE RESIDENCE, EACH CITY CONTAINS SEVERAL SMALLER DISTRICTS WHERE NON-WHITES REPRESENT A SIGNIFICANT PROPORTION OF THE POPULATION. WHERE SECONDARY AREAS OF THE SEGREGATED OR CONCENTRATED TYPES OCCUR, THEY TEND TO REPRODUCE THE STRUCTURE OF THE MAJOR AREA, EACH ONE FORMING THE CENTER OF A ZONE OF MIXED WHITE AND NON-WHITE RESIDENCE. THUS, THE MAP FOR PHILADELPHIA SHOWS NINE DISTINCT SEGREGATED AREAS EACH BORDERED BY CENSUS TRACTS OF LESSER NON-WHITE CONCENTRATION. IN CHICAGO, IN 1950, THERE WERE SIX SEGREGATED AREAS DETACHED FROM THE MAJOR BLACK BELT, EACH WITH ADJACENT TRACTS OF CONCENTRATED, MIXED, OR DISPERSION TYPES. SIMILAR PATTERNS ARE EVIDENT IN THE MAPS OF OTHER CITIES.[36]

---

35. IBID.

36. IBID., P. 34. MCENTIRE CLASSIFIED NON-WHITE AREAS BY PER CENT OF POPULATION IN THE AREA NON-WHITE. HIS CLASSIFICATION IS AS FOLLOWS:

DESIGNATION FOR AREA	PER CENT OF TRACT POPULATION NON-WHITE
SEGREGATED	75 OR MORE
CONCENTRATED	50-74
MIXED	10-49
DISPERSION	1- 9
EXCLUSION	LESS THAN 1

McEnt

in larger c

areas where

whites: wh

coming non-

residence a

populations.

various poi

these ways,

was housed.

dispersion o

and western

portent of t

1940-50 peri

The Ecologica

It shoul

considered as

suggests earl

"invasion-succ

"succession."

occur apart f

proceeding to

37. Ibid., p

McEntire gives three principal ways the non-white residence patterns in larger cities changed during the period 1940 to 1950: "First, the areas where non-whites were living in 1940 tended to fill up with non-whites: white residents moved out and their places were taken by incoming non-whites. Second, the boundaries of established non-white residence areas were extended, with replacement of white by non-white populations. And third, new 'colonies' of non-whites were created at various points more or less distant from the older settlements. In these ways, the vast majority of the increasing non-white population was housed. In addition, there occurred a certain amount of genuine dispersion of non-whites among the white population in many northern and western cities. Such dispersion, however, important as a possible portent of the future, was of minor consequence numerically in the 1940-50 period.[37]

The Ecological Process of Invasion-Succession.

It should be noted at this point that invasion-succession will be considered as one process rather than two distinct processes as McKenzie suggests earlier in this thesis. To emphasize this point the term "invasion-succession" will be used rather than the single term of "succession." This is not to assert that the two processes never occur apart from one another, for invasion may occur without ever proceeding to a completion of the succession process. Invasion in

---

37. Ibid., pp. 39-40.

THIS THESI

WHICH WILL

ONE OF

WAS THAT OF

VASION AND,

IN SUCCESS

TO MCKENZIE

UPON ANOTHER

COMMUNITY IN

OF LAND, AND

BY THE FORME

OF A RESIDEN

AN INDUSTRIA

A PARTICULAR

IN THE RACIA

THE TYPE OF

ACCORDI

CHARACTERIZE

DEVELOPMENTA

---

38. MCKENZIE
COMMUNIT
THE CITY

39. MCKENZIE

40. MCKENZIE
COMMUNIT

THIS THESIS WILL BE CONSIDERED THE INITIAL PHASE OF THE GENERIC PROCESS WHICH WILL BE REFERRED TO AS THE "INVASION-SUCCESSION PROCESS."

ONE OF THE FIRST CONTRIBUTIONS TO A "THEORY" OF INVASION-SUCCESSION, WAS THAT OF R. D. MCKENZIE, WHO DEFINED SUCCESSION SEPARATELY FROM INVASION AND, STATING THAT THE STRUCTURAL GROWTH OF COMMUNITY TAKES PLACE IN SUCCESSIONAL SEQUENCE,[38] PLACED EMPHASIS UPON THE PROCESS OF INVASION. TO MCKENZIE, INVASION "IMPLIES THE ENCROACHMENT OF ONE AREA OF SEGREGATION UPON ANOTHER, USUALLY AN ADJOINING AREA."[39] TWO MAIN CLASSES OF INTRA-COMMUNITY INVASIONS ARE SET FORTH: "THOSE RESULTING IN CHANGE IN USE OF LAND, AND THOSE WHICH INTRODUCE MERELY CHANGE IN TYPE OF OCCUPANT. BY THE FORMER IS MEANT CHANGE FROM ONE GENERAL USE TO ANOTHER, SUCH AS OF A RESIDENTIAL AREA INTO A BUSINESS AREA OR OF A BUSINESS AREA INTO AN INDUSTRIAL DISTRICT. THE LATTER EMBRACES ALL CHANGES OF TYPE WITHIN A PARTICULAR USE AREA, SUCH AS THE CHANGES WHICH CONSTANTLY TAKE PLACE IN THE RACIAL AND ECONOMIC COMPLEXION OF RESIDENCE NEIGHBORHOODS, OR OF THE TYPE OF SERVICE UTILITY WITHIN A BUSINESS SECTION."[40]

ACCORDING TO MCKENZIE THERE ARE THREE STAGES IN DEVELOPMENT WHICH CHARACTERIZE INVASIONS: (A) THE INITIAL STAGE, (B) THE SECONDARY OR DEVELOPMENTAL STATE, AND (C) THE CLIMAX. AS WILL BE NOTED LATER THESE

---

38. MCKENZIE, R. D., "THE ECOLOGICAL APPROACH TO THE STUDY OF THE HUMAN COMMUNITY," IN PARK, ROBERT E., E. W. BURGESS, AND R. D. MCKENZIE, THE CITY. CHICAGO: THE UNIVERSITY OF CHICAGO PRESS, 1925. P. 74.

39. MCKENZIE, R. D., "THE SCOPE OF HUMAN ECOLOGY," OP. CIT. P. 180.

40. MCKENZIE, R. D., "THE ECOLOGICAL APPROACH TO THE STUDY OF THE HUMAN COMMUNITY," OP. CIT. PP. 74-5.

DIVISIONS

BURGESS.

RESISTANCE

OF THE AREA

OF AN "UNDE

MOBILITY.

FOREIGN RAC

TAKE UP RESI

OTHER POINTS

THEY GRADUAL

THROUGHFARE

OF THE DEVEL

SELECTION DE

INVADED. IT

GRAPHICAL DI

THE CLIMAX,

CATION EMERGE

FORMS OF INVA

BURGESS

MOVEMENTS FRO

THE FORM OF "

---

41. IBID.,

42. IBID.,

43. IBID.,

DIVISIONS VERY MUCH RESEMBLE THE "STAGES OF SUCCESSION" PROPOSED BY BURGESS. THE INITIAL STAGE "HAS TO DO WITH THE POINT OF ENTRY, THE RESISTANCE OR INDUCEMENT OFFERED THE INVADER BY THE PRIOR INHABITANTS OF THE AREA, THE EFFECT UPON LAND VALUES AND RENTALS."[41] THE ENTRY OF AN "UNDESIRABLE" INVADER IS USUALLY MADE AT THE POINT OF GREATEST MOBILITY. MCKENZIE STATES THAT "IT IS A COMMON OBSERVATION THAT FOREIGN RACES AND OTHER UNDESIRABLE INVADERS, WITH FEW EXCEPTIONS, TAKE UP RESIDENCE NEAR THE BUSINESS CENTER OF THE COMMUNITY OR AT OTHER POINTS OF HIGH MOBILITY AND LOW RESISTANCE. ONCE ESTABLISHED THEY GRADUALLY PUSH THEIR WAY OUT ALONG BUSINESS OR TRANSPORTATION THOROUGHFARES TO THE PERIPHERY OF THE COMMUNITY."[42] THE SECOND STAGE OR THE DEVELOPMENTAL STAGE IS MARKED BY A PROCESS OF DISPLACEMENT AND SELECTION DETERMINED BY THE CHARACTER OF THE INVADER AND OF THE AREA INVADED. IT IS ALSO CHARACTERIZED BY INTENSE COMPETITION AND A GEOGRAPHICAL DIFFERENTIATION OF GROUPS AND SERVICES. THE THIRD STAGE, THE CLIMAX, IS REACHED "ONCE THE DOMINANT TYPE OF ECOLOGICAL ORGANIZATION EMERGES WHICH IS ABLE TO WITHSTAND THE INTRUSIONS OF OTHER FORMS OF INVASION."[43]

BURGESS RELATES THE PROCESS OF SUCCESSION TO THE RADIAL POPULATION MOVEMENTS FROM THE CENTER TOWARD THE PERIPHERY OF THE CITY WHICH TAKE THE FORM OF "SUCCESSIVE WAVES OF INVASION." HE LISTS FOUR SUB-PROCESSES

---

41. IBID., P. 75.

42. IBID., P. 76.

43. IBID., P. 77.

IN THE CO

(1)

(2)

(3)

(4)

AS MCKENZIE

OF THE ESTA

IMPUTED INF

LIKE M

PROCESS SEP

INTO AN ARE

LOGICAL IN

BY THE INV

MENTI

TWEEN INVA

THE SAME P

TYPES, VOL

ARE USUALL

TIVATED BY

VANTAGES,

---

44. BURGE

45. GIST,

IN THE COURSE OF SUCCESSION.

(1) INVASION - BEGINNING OFTEN AS AN UNNOTICED OR GRADUAL PENETRATION.
(2) REACTION - THE RESISTANCE MILD OR VIOLENT OF THE INHABITANTS OF THE COMMUNITY.
(3) INFLUX - ARRIVAL OF NEWCOMERS AND RAPID ABANDONMENT OF THE AREA BY ITS OLD-TIME RESIDENTS.
(4) CLIMAX - ACHIEVEMENT OF A NEW EQUILIBRIUM OF COMMUNAL STABILITY.[44]

AS MCKENZIE DOES, BURGESS ALSO STATES A RESISTANCE ENACTED BY THE MEMBERS OF THE ESTABLISHED COMMUNITY TO THE INVASION BY NEWCOMERS TO WHOM IS IMPUTED INFERIOR STATUS.

LIKE MCKENZIE, GIST AND HALBERT DEFINE INVASION AS A DISTINCT PROCESS SEPARATE FROM SUCCESSION. TO THEM "WHEN POPULATION MOVES INTO AN AREA FOR RESIDENTIAL PURPOSES, THE PHENOMENON IS TERMED ECOLOGICAL INVASION. IF THE ORIGINAL OCCUPANTS ARE COMPLETELY DISPLACED BY THE INVADERS, THE TERM SUCCESSION IS COMMONLY APPLIED...."[45]

MENTION IS MADE BY GIST AND HALBERT OF THE CLOSE ASSOCIATION BETWEEN INVASION AND SEGREGATION. THEY ARE OFTEN DIFFERENT ASPECTS OF THE SAME PROCESS. ECOLOGICAL INVASIONS ARE ALSO DIVISIBLE INTO TWO TYPES, VOLUNTARY AND INVOLUNTARY. "VOLUNTARY RESIDENTIAL INVASIONS ARE USUALLY A MATTER OF INFILTRATION BY INDIVIDUALS OR FAMILIES MOTIVATED BY A DESIRE FOR MORE PLEASANT SURROUNDINGS, OCCUPATIONAL ADVANTAGES, SOCIAL PRESTIGE, OR ANY NUMBER OF THINGS THAT RANK HIGH ON

---

44. BURGESS, E. W., OP. CIT., P. 112.

45. GIST, NOEL P. AND HALBERT, L.A., OP. CIT., P. 198.

THEIR SCA

APPARENTLY

IMPORTANT,

THE RELATI

EFFECT ON F

ALSO DISTIN

THESE TWO T

PRECEDE OR

TALBERT ALS

SOCIAL MOBI

OFTEN IS A

THAT HIGHER

ERICKS

INVASI
POPULA
AND DI
RESIDE
USUALL
TIAL S
LATION
IN CER
DIFFER
RACIAL

FURTHE

OF SUCCESSI

TYPES OF OC

FASHION."[46]

---

46. IBID.,

47. ERICKS

48. IBID.,

THEIR SCALE OF INTERESTS. ETHNIC OR RACIAL INVASIONS ARE NO EXCEPTION."[46] APPARENTLY NUMBERS INVOLVED IN INVASION ARE UNIMPORTANT, FOR WHAT IS IMPORTANT, AT LEAST SOCIOLOGICALLY, IS THE CHARACTER OF THE INVADERS, THE RELATIONSHIPS BETWEEN THE INVADERS AND THE OLD RESIDENTS, AND THE EFFECT ON PHYSICAL PROPERTIES AND SOCIAL INSTITUTIONS. GIST AND HALBERT ALSO DISTINGUISH INSTITUTIONAL INVASION FROM AN INVASION OF POPULATION. THESE TWO TYPES OF INVASION MAY OCCUR INDEPENDENTLY OF EACH OTHER, ONE PRECEDE OR FOLLOW THE OTHER, OR POSSIBLY OCCUR CONCURRENTLY. GIST AND HALBERT ALSO SEE A STRONG ASSOCIATION BETWEEN INVASION AND VERTICAL SOCIAL MOBILITY, EITHER UPWARD OR DOWNWARD. MOVEMENT INTO ANOTHER AREA OFTEN IS A MEANS TO HIGHER SOCIAL OR ECONOMIC POSITION OR INDICATES THAT HIGHER STATUS HAS ALREADY BEEN ACHIEVED.

ERICKSEN ALSO DISTINGUISHES THE TWO PHASES OF INVASION AND SUCCESSION:

> INVASION IS THE PROCESS BY WHICH NEW TYPES OF INSTITUTIONS OR POPULATION GROUPS GRADUALLY PENETRATE AN AREA ALREADY OCCUPIED AND DISPLACE THE HOST INSTITUTIONS OR POPULATION GROUPS. IN RESIDENTIAL INVASION TWO SETS OF PEOPLE ARE BROUGHT TOGETHER; USUALLY THERE IS A STATUS DIFFERENCE BETWEEN THEM. A RESIDENTIAL SUCCESSION MAY BE SAID TO HAVE OCCURRED ONLY IF THE POPULATION WHICH ENTERS AND ESTABLISHES ITSELF IN THE AREA DIFFERS IN CERTAIN RESPECTS FROM THE ONE WHICH IT SUPPLANTS. THE DIFFERENCES BETWEEN THE TWO MAY BE ECONOMIC, CULTURAL, OR RACIAL.[47]

FURTHERMORE, ERICKSEN SAYS, WHEN INVASION IS LINKED TO THE PROCESS OF SUCCESSION, THEY MAY BE CONCEIVED OF AS "A NATURAL CONSEQUENCE OF TYPES OF OCCUPANTS OR LAND USE WHICH FOLLOW EACH OTHER IN PREDICTABLE FASHION."[48]

---

46. IBID., P. 199.

47. ERICKSEN, E. GORDON, OP. CIT., P. 212.

48. IBID., P. 213.

A FU

THE FOLLO

LISTS OF S

STEP

STEP

STEP

STEP D

STEP E

STEP F

ERICKS

NEIGHBORHOO

PHYSICAL OR

AREAS USUAL

INHABITING

GIBBAR

SUCCESSION,

TWO PROCESS

ASPECT OF U

---

49. IBID.,

50. SEE GIB
ECOLOGY
OP. CIT

A FURTHER ELABORATION OF THE INVASION PROCESS BY ERICKSEN IS THE FOLLOWING SIX-STAGE SCHEMA DEVISED AND REFINED OVER OTHER PREVIOUS LISTS OF SUCCESSION STAGES:

STEP A. EQUILIBRIUM IN THE DISTRICT, MARKED BY LACK OF AWARENESS ON THE PART OF THE INHABITANTS OF ANY INVASION BY AN ALIEN GROUP.

STEP B. DISEQUILIBRIUM ARISING FROM THE FLIGHT OF SEVERAL UPPER-STRATA MEMBERS OF THE COMMUNITY. THIS FLIGHT IS IN RESPONSE TO RUMORS OF INVASION.

STEP C. THE CREATION OF NEW RESTRICTIVE COVENANTS OR REINFORCEMENT OF DORMANT COVENANTS FOLLOWING FROM THESE RUMORS.

STEP D. THE RUSH INVASION BY THE IN-MIGRANTS TO EXPLOIT THE OUTPOSTS ESTABLISHED EARLIER BY MEMBERS OF THEIR OWN GROUP OR BY THE BUFFER GROUP.

STEP E. REINTEGRATION OF THE AREA AS THE ALIEN GROUP ACQUIRES CUMULATIVE POWER. MASS EXODUS OF THE OLD OCCUPANTS TAKES PLACE AT THIS LEVEL.

STEP F. CHANGE OF COMMUNITY STATUS. THE NEW OCCUPANTS ORGANIZE AND DOMINATE THE AREA. THUS ORDERLY SUCCESSION AND A NEW EQUILIBRIUM HAS TAKEN PLACE.[49]

ERICKSEN SUGGESTS THAT WHENEVER NEGROES MOVE INTO AN ALL-WHITE NEIGHBORHOOD THE AREA HAS ALREADY BEGUN TO SHOW SIGNS OF DETERIORATION, PHYSICAL OR SOCIAL. FURTHERMORE, THE NEGROES WHO MOVE INTO ALL-WHITE AREAS USUALLY APPROXIMATE THE SOCIO-ECONOMIC LEVEL OF THE WHITES ALREADY INHABITING THE AREA.

GIBBARD HAS DEALT QUITE INTENSIVELY WITH THE PROCESS OF INVASION-SUCCESSION, ESPECIALLY RESIDENTIAL SUCCESSION.[50] CITY GROWTH INVOLVES TWO PROCESSES: THE FIRST IS THE ADDITION OF ELEMENTS, THE NUMERICAL ASPECT OF URBAN DEVELOPMENT, AND THE SECOND IS THE REDISTRIBUTION AND

---

49. IBID., PP. 215-16.

50. SEE GIBBARD, HAROLD A., RESIDENTIAL SUCCESSION: A STUDY IN HUMAN ECOLOGY, OP. CIT., AND "THE STATUS FACTOR IN RESIDENTIAL SUCCESSIONS," OP. CIT.

REINTEGRA

SUCCESSION

CHANGES OC

AREAS. IN

SUGGESTS T

IS, THEREF

PROPOSES T

BASIC AND I

THE BA
COMMUN
AND SO
CONSTI
THE IM
WHICH
IMPORT
OF THE
THE ET
DEVELO
(4) CO
ECONOM
DENTIA
RESIDE
(7) TH
MENT O
MENT,

GIBBAR

SUCCESSION

SONS OF ONE

OCCUPANTS O

---

51. GIBBAR
ECOLOG

52. IBID.,

REINTEGRATION OF THE UNITS INTO A CONTINUALLY FUNCTIONING WHOLE. SUCCESSION IS AN ASPECT OF THE SECOND PROCESS AND ALWAYS REFERS TO CHANGES OCCURRING IN A TEMPORAL SERIES WITHIN FIXED GEOGRAPHICAL AREAS. INVASION AND SUCCESSION ARE CLOSELY RELATED CONCEPTS. GIBBARD SUGGESTS THAT INVASION IS ALWAYS THE STARTING POINT OF SUCCESSION AND IS, THEREFORE, TREATED AS A PART OF THE SUCCESSION PROCESS. GIBBARD PROPOSES TWO TYPES OF CONDITIONS WHICH TEND TO PRODUCE SUCCESSIONS: BASIC AND IMMEDIATE.

> THE BASIC CONDITIONS ARE OPERATING CONTINUALLY TO MAINTAIN THE COMMUNITY'S STRUCTURE...MOST IMPORTANT OF THESE IS THE ECONOMIC AND SOCIAL DIFFERENTIATION AND SEGREGATION OF THE ELEMENTS THAT CONSTITUTE THE POPULATION AGGREGATE.
> THE IMMEDIATE CONDITIONS WHICH PRODUCE SUCCESSIONS ARE THOSE WHICH CAUSE A BREAK IN THE EQUILIBRIUM OF DISTRIBUTION. MOST IMPORTANT OF THESE CONDITIONS ARE: (1) A CHANGE IN THE SIZE OF THE POPULATION AGGREGATE IN THE COMMUNITY; (2) A CHANGE IN THE ETHNIC OR RACIAL COMPOSITION OF THE POPULATION; (3) THE DEVELOPMENT OF A STATUS HIERARCHY WITHIN A MINORITY GROUP; (4) COMMERCIAL OR INDUSTRIAL CHANGES THAT AFFECT THE RELATIVE ECONOMIC STATUS OF DIFFERENT GROUPS IN THE COMMUNITY; (5) RESIDENTIAL DISPLACEMENTS IN OTHER AREAS; (6) THE TAKING OVER OF RESIDENTIAL PROPERTIES FOR BUSINESS OR RECREATIONAL USES; (7) THE OBSOLESCENCE OF NEIGHBORHOODS; AND (8) THE ESTABLISHMENT OF LARGE FACTORIES, AND THE CONSEQUENT CREATION OF EMPLOYMENT, IN SUBURBAN AREAS.[51]

GIBBARD LISTS FIVE DISTINCT TYPES OF SUCCESSION, OF WHICH RESIDENTIAL SUCCESSION IS ONE. RESIDENTIAL SUCCESSION IS "THE PROCESS BY WHICH PERSONS OF ONE ETHNIC OR RACIAL TYPE OR ECONOMIC LEVEL REPLACE EARLIER OCCUPANTS OF A DIFFERENT TYPE OR LEVEL IN A RESIDENTIAL AREA."[52] TWO

---

51. GIBBARD, HAROLD A., RESIDENTIAL SUCCESSION: A STUDY IN HUMAN ECOLOGY, OP. CIT., PP. 226-7.

52. IBID., P. 37.

SELECTIVE

SOCIAL STA

IN OTHER W

POSSIBLE I

RESTRICTIO

GIBBA

USUALLY BE

DESIRE FOR

MAY BE BROK

SUMPTION CH

MAY BECOME

GIBBA

CYCLE," CO

(1) I

A RESID

LISHED

OR ECON

INVADER

GROUP,

THEMSE

OF AN

PURCHA

AGENTS

HAVING

OTHERS

(2)

TO A

AS A

THIS

MOST

WELL-

---

55. IB

SELECTIVE FORCES WHICH DRAW PERSONS TO THEIR PLACES OF RESIDENCE ARE SOCIAL STATUS ON THE ONE HAND AND ECONOMIC LIMITATION ON THE OTHER. IN OTHER WORDS, A FAMILY SEEKS TO LIVE IN AS GOOD A NEIGHBORHOOD AS POSSIBLE IN PURSUIT OF A HIGHER SOCIAL STATUS. THERE ALSO EXISTS A RESTRICTION IMPOSED ON THE FAMILY BY THE FAMILY'S LIMITED INCOME.

GIBBARD OBSERVES THAT "A FAMILY'S PLACE OF RESIDENCE, THEN, MAY USUALLY BE TAKEN TO MARK AN EQUILIBRIUM IN THE CONFLICT BETWEEN ITS DESIRE FOR RECOGNITION AND ITS FINANCIAL RESTRAINTS. THIS EQUILIBRIUM MAY BE BROKEN SEVERAL WAYS. A FAMILY'S INCOME MAY CHANGE. ITS CONSUMPTION CHOICES AT ANY INCOME LEVEL MAY VARY. AGAIN, A NEIGHBORHOOD MAY BECOME LESS OR MORE DESIRABLE."[53]

GIBBARD'S CONCEPTION OF SUCCESSION IS A "RESIDENTIAL SUCCESSION CYCLE," COMPRISED OF FIVE STAGES AS FOLLOWS:

> (1) INVASION. INVASIONS ARE THE STARTING POINT OF SUCCESSIONS. A RESIDENTIAL INVASION IS CONCEIVED AS THE ENTRANCE INTO AN ESTABLISHED RESIDENTIAL AREA OF A NUMBER OF FAMILIES OF AN ETHNIC, RACIAL, OR ECONOMIC TYPE PREVIOUSLY UNREPRESENTED IN THE AREA. THE INITIAL INVADERS ARE OFTEN THE MOST PROSPEROUS ECONOMICALLY IN THEIR OWN GROUP, AND ARE ANXIOUS FOR REASONS OF STATUS AND COMFORT TO SEPARATE THEMSELVES FROM THE MASSES OF THEIR OWN KIND. IF THEY ARE MEMBERS OF AN ETHNIC OR RACIAL MINORITY THEY MAY HAVE TO PAY HIGH RENT OR PURCHASE PRICES FOR THEIR NEW DWELLINGS; OR THEY MAY SELECT AS AGENTS MEMBERS OF THEIR OWN GROUP WHOSE IDENTITY IS NOT APPARENT. HAVING MADE THE INITIAL ENTRANCE, THEY TEND NATURALLY TO ATTRACT OTHERS OF THEIR GROUP TO THE SAME AREA.
>
> (2) RESISTANCE. PEOPLE COME TO CONCEIVE THEMSELVES AS BELONGING TO A PARTICULAR SECTION OF THEIR COMMUNITY. THEY REGARD AN INVASION AS A THREAT TO THAT POSITION, AND TEND TO RESIST IT. IT IS DURING THIS STAGE IN THE RESIDENTIAL SUCCESSION CYCLE THAT THE PROCESS IS MOST CLEARLY SEEN AS A COMPETITIVE ONE. IF THE INVASION IS INTO A WELL-INTEGRATED NEIGHBORHOOD THE LIKELIHOOD IS THAT THE COUNTER

---

53. IBID., PP. 38-9.

ACTION WIL
FUNCTIONAL
INFLUENCE.
PROPERTY H
MENTS AMON
INVASION.
THREAT OF

(3) EXOD
AGAINST TH
ESPIRT -DE
IS ABANDON
THE NEWCOM
VASION ELS
ON THE SOC
PANTS. DI
RESIDENTIA
THAT THEY
EVENTUALLY
MAY REMAIN

(4) REIN
LISHED ITS
AND PERHAP
DENTIAL SU
IN THE OCC
ETHNIC SUC
IN THE NE
THE AREA,

(5) RE-
A RESIDEN
THE SUCCE
ROLE IN T
LARGE-SCA
BALANCE O
IS ESTABL

BY FOCU
GENERALIZATI
SUCCESSION"
AND THAT THE

54. IBID.,

ACTION WILL BE ORGANIZED AND STRONG. IN DISINTEGRATED, "NON-FUNCTIONAL" AREAS, OPPOSITION IS USUALLY MEAGER, AND WITHOUT INFLUENCE. THE EXERTING OF INDIVIDUAL OR GROUP PRESSURE ON PROPERTY HOLDERS, AND THE ESTABLISHMENT OF COLLECTIVE AGREEMENTS AMONG OWNERS, ARE THE MOST IMPORTANT INFLUENCES AGAINST INVASION. MOB ACTION IS OCCASIONALLY RESORTED TO, AND THE THREAT OF IT ACTS CONSTANTLY.

(3) EXODUS. IF THE INVADERS ARE ABLE TO GAIN ANY HEADWAY AGAINST THE OPPOSITION OF THE RESISTING GROUP, THE LATTER'S ESPIRT -DE-CORPS USUALLY BREAKS, AND THEIR PROGRAM OF RESISTANCE IS ABANDONED. IN INCREASING NUMBERS THEY YIELD THEIR HOMES TO THE NEWCOMERS, AND THEMSELVES BECOME COMPETITORS IN ANOTHER INVASION ELSEWHERE. THE RATE AT WHICH THIS EXODUS OCCURS DEPENDS ON THE SOCIAL DISTANCE BETWEEN THE INVADERS AND THE OLDER OCCUPANTS. DISPLACEMENTS AND REPLACEMENTS, A FEATURE OF THE WHOLE RESIDENTIAL SUCCESSION CYCLE, ARE SO FREQUENT DURING THIS STAGE THAT THEY CREATE A HIGH MEASURE OF NEIGHBORHOOD DISORGANIZATION. EVENTUALLY ONLY A FEW "MAROONED" FAMILIES AMONG THE OLDER RESIDENTS MAY REMAIN.

(4) REINTEGRATION OF THE AREA. WHEN AN INVADING GROUP HAS ESTABLISHED ITSELF FIRMLY IN AN AREA, IT TENDS TO DRAW SHOPS, CHURCHES, AND PERHAPS SOCIAL CLUBS, AFTER IT. IN ITS LATER STAGES A RESIDENTIAL SUCCESSION IS ALMOST ALWAYS ACCOMPANIED BY A SUCCESSION IN THE OCCUPANCY OF NON-RESIDENTIAL PROPERTIES. IN THE CASE OF ETHNIC SUCCESSIONS, PARTICULARLY, THE RELOCATING OF INSTITUTIONS IN THE NEWLY ACQUIRED AREA GIVE A NEW FUNCTIONAL INTEGRATION TO THE AREA, AND PRODUCES ONCE AGAIN A NEIGHBORHOOD STABILITY.

(5) RE-EQUILIBRIUM. WHEN THE INVADING GROUP COMES TO DOMINATE A RESIDENTIAL AREA, AND GIVES IT ITS ECONOMIC AND MORAL CHARACTER, THE SUCCESSION HAS RUN ITS COURSE. THE AREA COMES TO OCCUPY A NEW ROLE IN THE TERRITORIAL DIVISION OF LABOR OF THE WHOLE CITY. THE LARGE-SCALE SHIFT OF POPULATION, OCCASIONED BY A BREAK IN THE BALANCE OF OPPOSING FORCES, IS COMPLETED, AND A NEW EQUILIBRIUM IS ESTABLISHED.[54]

BY FOCUSING ON INTRA-CITY MOVEMENTS GIBBARD ARRIVES AT A NUMBER OF GENERALIZATIONS WHICH ATTEMPT TO CLARIFY WHAT THE PROCESS OF "RESIDENTIAL SUCCESSION" INVOLVES. GIBBARD STATES THAT FAMILIES MOVE IN ALL DIRECTIONS AND THAT THE DISTANCE MOVED VARIES. ALSO, A LARGE AMOUNT OF INTRA-URBAN

---

54. IBID., PP. 228-30.

MOVEMENT TA

TRIBUTE TO

FAMILY MIGR

CITY CENTER

OTHER RADIA

DRAWS TWO C

TO BE REPEC

LY ADJACENT

GOING FAMIL

WHO ARE CU

A SLIGHTLY

CONTI

DIRECTS SP

ON THIS LE

CITY MOVEM

(1) T

SEGREGA

CITY.

THE SUC

(2) T

GATED P

(3) T

AWAY FR

PERIPHE

LYING D

TERRITO

(4) T

INTO AN

THESE A

55. IBID.

56. IBID.

MOVEMENT TAKES PLACE WITHIN ONE NEIGHBORHOOD AND, THUS, CANNOT CONTRIBUTE TO SUCCESSION. HOWEVER, WHILE DISPERSION SEEMS TO CHARACTERIZE FAMILY MIGRATIONS, THERE IS A TENDENCY TO MOVE DIRECTLY AWAY FROM THE CITY CENTER WITHIN THE SAME RADIAL SECTION RATHER THAN DISPERSE INTO OTHER RADIAL SECTORS. WITH REGARD TO THIS TYPE OF MOVEMENT GIBBARD DRAWS TWO CONCLUSIONS: (1) AN URBAN RESIDENTIAL NEIGHBORHOOD TENDS TO BE REPEOPLED BY FAMILIES WHO PREVIOUSLY LIVED IN THE AREA IMMEDIATELY ADJACENT AND ON THE SAME SIDE OF THE CITY CENTER, AND (2) THE OUTGOING FAMILIES FROM ANY RESIDENTIAL AREA TEND TO BE REPLACED BY OTHERS WHO ARE CULTURALLY MORE FOREIGN OR OF A MINORITY RACE AND WHO ARE OF A SLIGHTLY LOWER ECONOMIC STATUS.[55]

CONTINUING WITH HIS INTEREST IN INTRA-URBAN MIGRATION GIBBARD DIRECTS SPECIFIC ATTENTION TO SUCH MOVEMENTS OF SEGREGATED PEOPLES. ON THIS LEVEL HE DRAWS THE FOLLOWING CONCLUSIONS ABOUT THEIR INTRA-CITY MOVEMENTS:

> (1) THERE IS A CONSIDERABLE VOLUME OF MOVEMENT THAT IS WITHIN SEGREGATED AREAS, JUST AS THERE IS IN ANY LIMITED REGION OF THE CITY. SUCH MOVEMENTS, OF COURSE, DO NOT CONTRIBUTE DIRECTLY TO THE SUCCESSIONS.
> (2) THERE IS LESS TERRITORIAL SPREAD IN THE MOVEMENTS OF SEGREGATED POPULATIONS THAN IN THOSE OF URBAN POPULATIONS AS A WHOLE.
> (3) THE MIGRATION TREND BETWEEN AREAS OF SEGREGATION IS USUALLY AWAY FROM THOSE CENTRALLY LOCATED TOWARD THOSE LYING NEARER THE PERIPHERY. THE TENDENCY THEN IS FOR THE ALREADY ESTABLISHED OUTLYING DISTRICTS OF THE MINORITY TO EXPAND, AND IN THIS WAY THE TERRITORIAL CONFIGURATION OF POPULATION TYPES IN A CITY IS ALTERED.
> (4) THE MOVES WHICH INITIATE AN ETHNIC OR RACIAL INVASION MAY BE INTO ANY AREA WHERE AN ENTRANCE CAN BE GAINED. THE LOCATION OF THESE AREAS CAN NOT BE PREDICTED WITH CERTAINTY.[56]

---

55. IBID., PP. 88-90.

56. IBID., PP. 98-99.

RESIDEN

ORIGINAL GR

UNITS ARE R

POPULATION

TORY IMMEDI

PHYSICALLY

"NON-CONTIG

TERM CONTIG

TERRITORY E

CENT AREA.

OVERFLOWIN

OCCUPANCY

ENTRY OF A

FROM THE P

IN TR

INVASION O

EXPANSION

ATTEMPT TH

ENED AREA

AREA BY MO

INVASION.

OF INSECU

57. IBID

RESIDENTIAL SUCCESSION IMPLIES THE OCCURRENCE OF EXPANSION OF THE ORIGINAL GROUP AND, AS A RESULT, A CONTINUALLY LARGER NUMBER OF DWELLING UNITS ARE REQUIRED. BECAUSE OF THIS NEED FOR EXPANSION, A SEGREGATED POPULATION MAY INVADE NEW TERRITORY IN TWO WAYS: INVASION OF THE TERRITORY IMMEDIATELY ADJOINING ITS ESTABLISHED HABITAT OR ENTRY INTO SOME PHYSICALLY SEPARATE AREA. GIBBARD EMPLOYS THE TERMS "CONTIGUOUS" AND "NON-CONTIGUOUS" TO DISTINGUISH THESE TWO TYPES OF EXPANSION. "THE TERM CONTIGUOUS EXPANSION MAY BE USED TO DESCRIBE THE INVASION OF A TERRITORY BY SOCIAL UNITS EXISTING PREVIOUSLY IN AN IMMEDIATELY ADJACENT AREA....IT DENOTES RESIDENTIAL SUCCESSIONS RESULTING FROM THE OVERFLOWING OF THE BOUNDARIES WHICH PREVIOUSLY DELIMITED THE AREA OF OCCUPANCY OF THE POPULATION GROUP. NON-CONTIGUOUS EXPANSION IS THE ENTRY OF A TYPE OF SOCIAL UNIT INTO AN AREA THAT IS PHYSICALLY DETACHED FROM THE PLACE OF EMIGRATION OR DISSEMINATION."[57]

IN TRYING TO ESTABLISH THE DIFFERENCE BETWEEN THESE TWO TYPES OF INVASION OR EXPANSION, GIBBARD STATES THAT IN THE CASE OF CONTIGUOUS EXPANSION THERE IS ALWAYS A BELIEF THAT THE GROUP MAY AT ANY TIME ATTEMPT THE ENTRY INTO THE NEW TERRITORY. THE PERSONS IN THE THREATENED AREA REACT IN ONE OF TWO WAYS: THEY EITHER TRY TO ESCAPE THE AREA BY MOVING FROM IT OR THEY PLAN SOME SORT OF RESISTANCE TO THE INVASION. THIS THREAT OF A RESIDENTIAL INVASION ALWAYS CAUSES A SENSE OF INSECURITY AMONG THE OCCUPANTS OF THE AFFECTED AREA. NON-CONTIGUOUS

---

57. IBID., P. 160.

EXPANSION, ON

LATION GROUPS

THAT THERE IS

SUCCESSFUL EN

BE THE INITIA

TO SETTLE IN

THE AREA OF S

FURTHER POINT

IS THAT THEY

IN THE MINORI

THE OLD AREA

FAMILIES WHO

PROFESSIONAL

CESS, AND WH

THE SELECTIV

AREAS OF INV

IN CONTRAST

IN CONTIGUCU

A FINAL

THE STATUS F

USUALLY INVO

---

58. IBID.,

59. GIBBARD

OP. CIT

EXPANSION, ON THE OTHER HAND, RESULTS IN A NEW DISTRIBUTION OF POPULATION GROUPS WITHIN A CITY. HOWEVER, THE SIGNIFICANT FEATURE IS THAT THERE IS LITTLE OR NO ANTICIPATION OF THEIR OCCURRENCE. THE SUCCESSFUL ENTRY OF A FEW FAMILIES INTO SUCH AN AREA, HOWEVER, MAY BE THE INITIAL STEP OF FURTHER INVASION IN WHICH NEW FAMILIES TEND TO SETTLE IN DWELLINGS ON THE MARGIN OF THE OCCUPIED SECTION AND THE AREA OF SEGREGATION WIDENS FROM CONTIGUOUS EXPANSION. ONE FURTHER POINT GIBBARD MAKES ABOUT INVASIONS OF NON-CONTIGUOUS AREAS IS THAT THEY MAY EXPRESS AN ECONOMIC OR SOCIAL DIFFERENTIATION WITHIN THE MINORITY GROUP ITSELF. THERE RESULTS A BREAKING AWAY FROM THE OLD AREA IN A PHYSICAL AND OFTEN IN A SOCIAL SENSE. "THE NEGRO FAMILIES WHO LEAD IN THE INVASION INTO WHITE AREAS...ARE USUALLY PROFESSIONAL PERSONS WHO HAVE MET WITH CONSIDERABLE ECONOMIC SUCCESS, AND WHO ARE REGARDED AS LEADERS AMONG THE COLORED POPULATION. THE SELECTIVITY THAT IS OPERATING TO ATTRACT PERSONS TO NON-CONTIGUOUS AREAS OF INVASION MAY BE BASED ON A STATUS DIFFERENCE WITHIN THE GROUP... IN CONTRAST TO INVASIONS OF THIS GENERAL SORT, SELECTION IS NOT INVOLVED IN CONTIGUOUS EXPANSION."[58]

A FINAL POINT DISCUSSED BY GIBBARD DEALS WITH THE SIGNIFICANCE OF THE STATUS FACTOR IN RESIDENTIAL SUCCESSION.[59] RESIDENTIAL INVASION USUALLY INVOLVES A STATUS DIFFERENCE BETWEEN THE TWO SETS OF PEOPLE

---

58. IBID., P. 165.

59. GIBBARD, HAROLD A., "THE STATUS FACTOR IN RESIDENTIAL SUCCESSION," OP. CIT.

BEING AFFECTED

AN IMPERSONAL

INTIMATE EVALU

NIZABLE TRAITS

CLASS. AMONG

EACH RESIDENC

COMMUNITY."[60]

FERENCES ARE

ENTRANCE INTO

A LESS DESIRA

INTO A NEIGHB

IMPROVE THEI

GIBBARD

INVASION IS

TO SET THEMS

SPATIAL EXPR

VASIONS ARE

THE MINORITY

HIGHER ECONO

NUMBER TO O

THUS IDENTI

CANNOT ENTE

---

60. IBID.,

61. IBID.,

BEING AFFECTED. WITHIN URBAN COMMUNITIES, USUALLY CHARACTERIZED BY AN IMPERSONAL ATMOSPHERE, "COMMUNITY STATUS DOES NOT REST ON ANY INTIMATE EVALUATION OF THE PERSON. INSTEAD, CERTAIN EASILY RECOGNIZABLE TRAITS, SUCH AS POSSESSIONS, BECOME SYMBOLIC OF EACH STATUS CLASS. AMONG THE URBAN BADGES OF STATUS ARE AREAS OF RESIDENCE. EACH RESIDENCE AREA, THEN, HAS A STATUS VALUE IN THE EYES OF THE COMMUNITY."[60] TWO PROCESSES, THEN, ARE APPARENT WHEN STATUS DIFFERENCES ARE OPERATIVE: THE TENDENCY FOR RESIDENTS TO RESIST THE ENTRANCE INTO THEIR NEIGHBORHOOD OF OTHERS WHO WOULD GIVE THE AREA A LESS DESIRABLE CHARACTER AND THE DESIRE OF MANY FAMILIES TO MOVE INTO A NEIGHBORHOOD OF EQUAL OR HIGHER STATUS IN AN ATTEMPT TO IMPROVE THEIR OWN STATUS LEVEL.

GIBBARD SUGGESTS, FURTHERMORE, THAT A PRIME REASON FOR RESIDENTIAL INVASION IS "IN THE TENDENCY FOR THOSE OCCUPYING A HIGH SOCIAL POSITION TO SET THEMSELVES APART FROM OTHERS OF THEIR MINORITY---I.E., TO GIVE SPATIAL EXPRESSION TO THEIR STATUS ROLES."[61] IN MOST CASES SUCH INVASIONS ARE INTO AREAS WHERE THE RENT LEVEL IS HIGHER THAN MOST OF THE MINORITY CAN PAY. IN SO DOING THE INVADERS CAN DISPLAY THEIR HIGHER ECONOMIC POSITION AND, FURTHERMORE, THIS ENABLES ONLY A SELECT NUMBER TO OBTAIN SUCH OVERT SYMBOLS OF WEALTH AND STATUS. THE INVADERS THUS IDENTIFY WITH A RESIDENTIAL AREA INTO WHICH OTHERS OF THEIR MINORITY CANNOT ENTER. GIBBARD STATES FURTHER THAT, "SUCH INVASIONS ARE OFTEN

---

60. IBID., P. 836.

61. IBID., P. 838.

MORE CLOSELY C

AMONG THEIR OW

WITH THE OLD-E

THE PRESE

AN AREA RESULT

HELD RELATIVEL

DURING THE EAR

EAGER TO SHARE

SUCH A CASE TH

FOR THE CONTIN

A SIGNIFI

THAT IS MADE U

ANY ONE ETHNIC

THOSE OF HIS C

BY THEIR BROAD

DENTIAL INVASI

FORE, THAT FAM

RESIDENTS OF T

THEIR OWN KIND

ALITY TO WHICH

WHERE BOT
SINGLE CO
HIS OWN C

---

62. IBID., P

63. IBID.,

MORE CLOSELY CONNECTED WITH THE SOCIAL POSITION OF THE FIRST INVADERS AMONG THEIR OWN PEOPLES THAN WITH ANY REAL HOPE OF BEING IDENTIFIED WITH THE OLD-ESTABLISHED RESIDENTS IN THE AREAS INVADED."[62]

THE PRESENCE OF THESE FIRST INVADERS OF THE MINORITY GROUP IN AN AREA RESULTS IN THE ECONOMIC AND STATUS LEVEL OF THE AREA BEING HELD RELATIVELY HIGH IN THE EYES OF THE MASSES OF THE MINORITY GROUP DURING THE EARLY STAGES OF THE SUCCESSION CYCLE. EVENTUALLY THOSE EAGER TO SHARE THE STATUS OF THE FIRST INVADERS TRY TO FOLLOW. IN SUCH A CASE THE PRESTIGE OF THE FIRST FAMILIES PROVIDE AN IMPETUS FOR THE CONTINUATION OF THE INVASION.

A SIGNIFICANT POINT SUGGESTED BY GIBBARD IS THAT "IN A COMMUNITY THAT IS MADE UP OF DIVERSE PEOPLES THE TENDENCY IS FOR A PERSON OF ANY ONE ETHNIC OR RACIAL TYPE TO RECOGNIZE SOCIAL DIFFERENCES AMONG THOSE OF HIS OWN TYPE, BUT TO IDENTIFY MEMBERS OF OTHER GROUPS SIMPLY BY THEIR BROAD RACIAL OR CULTURAL AFFILIATIONS."[63] APPLIED TO RESIDENTIAL INVASION OF A MINORITY GROUP THIS PRINCIPLE SUGGESTS, THEREFORE, THAT FAMILIES WHO LEAD INVASIONS ARE VIEWED BY THE ESTABLISHED RESIDENTS OF THE AREA NOT AS PEOPLE HAVING ESTEEM AMONG OTHERS OF THEIR OWN KIND, BUT ONLY AS PEOPLE OF THE PARTICULAR RACE OR NATIONALITY TO WHICH THEY BELONG. GIBBARD REMARKS THAT

> WHERE BOTH A CASTE AND A CLASS STRATIFICATION EXIST WITHIN A SINGLE COMMUNITY, A PERSON TENDS TO IDENTIFY OTHER MEMBERS OF HIS OWN CASTE ON THE BASIS OF THEIR CLASS POSITION, WHILE HE

---

62. IBID., P. 839.

63. IBID.,

DOES NOT
ATION WIT
TO VIEW C
INVASION
THE INVAD
SAME TIME
RESIDENTS
OR NOT, F
OCCUPANTS
OWN GROUP

BECAUSE O

FOLLOWS AND TH

OF PREVAILING

MANIFEST A LOW

INVASION ARE A

RENCE DEFEATS

OF A NEW RESID

STATUS FACTOR

BETWEEN THE I

TIVATION IS B

SUCCESSION SI

WEAVER I

OF THE NEGRO

AS IMMIGRANT

DISTRICT AND

---

64. GIBBARD, ECOLOGY,

65. GIBBARD, OP. CIT.

> DOES NOT RECOGNIZE WITH EQUAL CLARITY THE SOCIAL DIFFERENTIATION WITHIN OTHER CASTES. THE TENDENCY, THEN, IS FOR WHITES TO VIEW COLORED SOCIAL LEADERS SIMPLY AS NEGROES. WHILE AN INVASION OF PROMINENT FAMILIES OF A MINORITY GROUP WILL GIVE THE INVADED AREA A STATUS IN THE EYES OF THAT GROUP, AT THE SAME TIME IT MAKES THE AREA LESS DESIRABLE TO THE ESTABLISHED RESIDENTS....THESE FIRST FAMILIES, THEN, WHETHER THEY WISH IT OR NOT, FILL THE DOUBLE FUNCTION OF DRIVING THE ESTABLISHED OCCUPANTS FROM THE INVADED AREA, AND ATTRACTING OTHERS OF THEIR OWN GROUP TO REPLACE THOSE WHO LEAVE.[64]

BECAUSE OF THIS DOUBLE FUNCTION OF EARLY INVADERS, A RAPID TURNOVER FOLLOWS AND THE SUPPLY AND DEMAND OF DWELLINGS RESULTS IN A REDUCTION OF PREVAILING RENT LEVELS. WHEN THIS HAPPENS, SUCCEEDING FAMILIES WHO MANIFEST A LOWER ECONOMIC LEVEL THAN THAT OF THE FIRST ENTRANTS IN THE INVASION ARE ALLOWED TO TAKE UP RESIDENCE IN THE AREA. SUCH AN OCCURRENCE DEFEATS THE HOPE OF GAINING CLASS SEGREGATION BY THE INVASION OF A NEW RESIDENTIAL AREA. IN CONCLUSION, GIBBARD STATES THAT THE STATUS FACTOR IS LEAST OPERATIVE WHEN THERE IS NO WIDE DIFFERENCE BETWEEN THE INVADERS AND THE INVADED. FURTHERMORE, THE "STATUS MOTIVATION IS BUT ONE OF A NUMBER OF ELEMENTS THAT MAY BE SEEN IN THE SUCCESSION SITUATION."[65]

WEAVER IN THE NEGRO GHETTO VIEWS THE INVASION-SUCCESSION PROCESS OF THE NEGRO IN NORTHERN CITIES SIMILAR TO BURGESS AND GIBBARD. JUST AS IMMIGRANT GROUPS SEEK "A PORT OF ENTRY" NEAR THE CENTRAL BUSINESS DISTRICT AND THE MORE SUCCESSFUL MEMBERS OF THE GROUP ATTEMPT TO ESCAPE

---

64. GIBBARD, HAROLD A., RESIDENTIAL SUCCESSION: A STUDY IN HUMAN ECOLOGY, OP. CIT., PP. 181-2.

65. GIBBARD, HAROLD A., "THE STATUS FACTOR IN RESIDENTIAL SUCCESSION," OP. CIT., P. 842.

FROM THE A

SHOWS THE

FINAL STAG

AL COLONY A

AN INVASION

HAVE TENDED

DISPLAY THE

THE EXPERIE

GRANT WHO I

TO MOVE OUT

AS AN INDIVI

OF A DISTING

HIS INITIAL

WEAVER

DO LITTLE BE

THE BLACK BE

COMES A BREAK

SOMEWHERE BEY

RESISTANCE TO

WHITE AREA WH

"NEGROES USUAL

HAVE HIGH AND

DESIRABILITY A

---

66. WEAVER, P.

67. IBID., P.

FROM THE AREAS OF FIRST SETTLEMENT, THE NEGRO AS AN ETHNIC GROUP SHOWS THE SAME PATTERN. THE NEGRO, HOWEVER, NEVER ACHIEVES THE FINAL STAGE OF THE SEVERING OF SEPARATE INDIVIDUALS FROM THE CULTURAL COLONY AND THE SUBSEQUENT ENTRANCE INTO NEW AREAS NOT LEADING TO AN INVASION OF THE CULTURAL GROUP AS A WHOLE. WHILE IMMIGRANT GROUPS HAVE TENDED TO BECOME LESS CONCENTRATED IN CITIES OF THE NORTH, NEGROES DISPLAY THE OPPOSITE TENDENCY. "THE MOST STRIKING DIFFERENCE BETWEEN THE EXPERIENCE OF WHITE AND COLORED IMMIGRANTS IS THAT WHILE THE IMMIGRANT WHO IMPROVES HIMSELF ECONOMICALLY AND CULTURALLY HAS A CHANCE TO MOVE OUT INTO ANOTHER SECTION OF THE CITY AND GENERALLY BE ACCEPTED AS AN INDIVIDUAL, THE NEGRO HAS NO SUCH ESCAPE. SINCE HE IS A MEMBER OF A DISTINGUISHABLE GROUP, THE IMPUTED INFERIORITY WHICH OCCASIONED HIS INITIAL SEGREGATION STICKS WITH HIM."[66]

WEAVER CLAIMS, HOWEVER, THAT ORGANIZED RESISTANCE TO INVASION CAN DO LITTLE BECAUSE OF THE PRESSURE OR DENSITY WHICH IS BUILT UP WITHIN THE BLACK BELT AS THE NEGRO POPULATION INCREASES. EVENTUALLY THERE COMES A BREAK AND PENETRATION FOLLOWS AND A NEW BARRIER IS ESTABLISHED SOMEWHERE BEYOND THE LOCATION OF THE FORMER. THE INTERNAL WEAKNESS OF RESISTANCE TO NEGRO INVASION IS IN THE FORM OF CHRONIC VACANCIES IN A WHITE AREA WHICH, THUS, PERMITS SEEPAGE OF NEGROES. HE STATES THAT, "NEGROES USUALLY START MOVING INTO NEW SECTIONS WHEN THESE SECTIONS HAVE HIGH AND CHRONIC VACANCIES AND WHEN THEY ARE DECLINING IN DESIRABILITY AS RESIDENTIAL AREAS."[67]

---

66. WEAVER, ROBERT C., THE NEGRO GHETTO, NEW YORK: HARCOURT, BRACE, 1948, P.41-2

67. IBID., P. 272.

OTHER FA

SUCCESSION PA

STATES THAT

COLORED PEOP

BELTS THEY A

OF LACKING R

THEIR EARNIN

NEIGHBORHOOD

RESULT, TEND

CONTIGUOUS T

DUNCAN

RESIDENTIAL

DISTINGUISH

A NORTHERN C

TO "THE REPL

ALTHOUGH THE

ESTABLISHED

OCCURRED FRO

AREAS WITHIN

EXISTING ARE

PROCESS. TH

---

68. IBID.,

69. DUNCAN,

OTHER FACTORS ARE OPERATIVE WHICH ALSO ENCOURAGE THE INVASION-SUCCESSION PATTERNS SO CHARACTERISTIC OF NEGROES IN THE NORTH. WEAVER STATES THAT INVASION OF CONTIGUOUS AREAS IS MORE COMMON AND THAT WHEN COLORED PEOPLE DO MOVE TO AREAS NON-CONTIGUOUS TO ESTABLISHED BLACK BELTS THEY ARE SUSPECT BY OTHER NEGROES.[68] SUCH NEGROES ARE ACCUSED OF LACKING RACE PRIDE AND, IF THEY ARE BUSINESS OR PROFESSIONAL PEOPLE, THEIR EARNINGS MAY SUFFER. FURTHERMORE, THE NEGRO WHO ENTERS A WHITE NEIGHBORHOOD FACES ISOLATION AND INSULT. THIS TWOFOLD REACTION, AS A RESULT, TENDS TO ENFORCE SEGREGATION AND ENCOURAGE INVASION OF AREAS CONTIGUOUS TO ALREADY CONCENTRATED NEGRO AREAS.

DUNCAN AND DUNCAN'S THE NEGRO POPULATION OF CHICAGO: A STUDY OF RESIDENTIAL SUCCESSION APPEARS TO BE THE ONLY COMPREHENSIVE ATTEMPT TO DISTINGUISH THE INVASION-SUCCESSION PATTERN OF THE NEGRO POPULATION OF A NORTHERN CITY. TO DUNCAN AND DUNCAN, RESIDENTIAL SUCCESSION REFERS TO "THE REPLACEMENT OF ONE POPULATION GROUP IN AN AREA BY ANOTHER."[69] ALTHOUGH THE GENERAL OUTLINE OF THE NEGRO RESIDENTIAL AREA HAD BEEN ESTABLISHED ALREADY BY 1920 AND A CONSOLIDATION OF NEGRO AREAS HAD OCCURRED FROM 1920 TO 1950, THE EXPANSION OF THE NEGRO RESIDENTIAL AREAS WITHIN CHICAGO HAS BEEN IN TERMS OF ADDING AREAS CONTIGUOUS TO EXISTING AREAS OF NEGRO CONCENTRATION, I.E., THE INVASION-SUCCESSION PROCESS. THE MOST FREQUENT PATTERN OF NEGRO EXPANSION FOUND OCCURRING

---

68. IBID., P. 240.

69. DUNCAN, OTIS D. AND DUNCAN, BEVERLY, OP. CIT., P. 108.

WITHIN THE PE

NEGRO OCCUPAN

ARRESTING, I

MOST LIKELY

OF A DOMINAN

POSSIBILITY

THE AUT

SUBTYPE OF F

"TAKES PLACE

ANOTHER AS

OCCURRENCE

WHICH TOGET

GIBBARD'S,

AUTHORS' FO

> ...SUC
> HITHER
> PROPOS
> INVAS
> ACCOM
> CONSO
> IS CO
> VIRTU
> AFTER
> POPUL
> GROSS

UNLIK

PROCESS OF

---

70. IBID.

71. IBID.

WITHIN THE PERIOD 1920-50 WAS FOR THE SUCCESSION FROM NON-NEGRO TO NEGRO OCCUPANCY TO CONTINUE WITHOUT INTERRUPTION. FURTHERMORE, THE ARRESTING, INTERRUPTION, OR REVERSAL OF THE SUCCESSION PROCESS WAS MOST LIKELY TO OCCUR DURING THE INITIAL STAGES. HOWEVER, THE EXISTENCE OF A DOMINANT PATTERN, AS THE AUTHORS POINT OUT, DOES NOT RULE OUT THE POSSIBILITY OF A NUMBER OF VARIANT PATTERNS OF SUCCESSION.

THE AUTHORS EMPLOY THE TERM "RACIAL SUCCESSION" TO REFER TO A SUBTYPE OF RESIDENTIAL SUCCESSION. RACIAL SUCCESSION, THEREFORE, "TAKES PLACE WHEN ONE RACIAL CATEGORY OF THE POPULATION REPLACES ANOTHER AS RESIDENTS OF AN AREA."[70] SINCE SUCCESSION IMPLIES AN OCCURRENCE OVER TIME, THE AUTHORS HAVE DEVISED A SEQUENCE OF STAGES WHICH TOGETHER COMPRISE THE PROCESS OF SUCCESSION, SIMILAR TO BURGESS', GIBBARD'S, AND ERICKSEN'S OWN SCHEMES OF THE PHASES OF SUCCESSION. THE AUTHORS' FOUR STAGES OF SUCCESSION ARE AS FOLLOWS:

> ...SUCCESSION BEGINS WITH THE PENETRATION BY NEGROES OF AN AREA HITHERTO INHABITED EXCLUSIVELY BY WHITES. WHEN THE NUMBER AND PROPORTION OF NEGROES IN THE AREA BECOME SIGNIFICANTLY GREAT, INVASION HAS OCCURRED. FURTHER INCREASES IN NEGRO POPULATION, ACCOMPANIED BY DECREASES IN THE WHITE POPULATION, AMOUNT TO A CONSOLIDATION OF THE AREA FOR NEGRO RESIDENCE. CONSOLIDATION IS COMPLETED WHEN THE AREA HAS BECOME EXCLUSIVELY NEGRO, OR VIRTUALLY SO. A FINAL STAGE, PILING UP, IS RECOGNIZED IF, AFTER COMPLETE OCCUPATION OF AN AREA BY NEGROES, THE NEGRO POPULATION CONTINUES TO INCREASE, ENTAILING AN INCREASE IN GROSS AND NET POPULATION DENSITY.[71]

UNLIKE MANY OF THOSE WHO HAVE SUGGESTED HYPOTHETICAL STAGES IN THE PROCESS OF INVASION-SUCCESSION, DUNCAN AND DUNCAN OFFER SPECIFIC EMPIRICAL

---

70. IBID., P. 11.

71. IBID.

CRITERIA FO

CENSUS TRAC

BECAUSE OF

WAS NOT CON

FIED AS HAV

FEWER THAN

OF LESS THA

IN 1950.

FOR TH

DESIGNATED.

HAVING 250

IN 1940, BU

1940. THE

AS CONSOLID

BOTH 1940 A

THE BEGINNI

CALLED "LAT

WHITE POPUL

FINAL STAGE

NON-WHITES

THE AU

THETICAL ST

CRITERIA. E

THE DUNCANS

CRITERIA FOR DELINEATING THESE STAGES. THE AUTHORS CLASSIFIED 175 CENSUS TRACTS ON THE BASIS OF CHANGES OCCURRING BETWEEN 1940 AND 1950. BECAUSE OF A LACK OF RELEVANT CENSUS DATA, THE FIRST STAGE, PENETRATION, WAS NOT CONSIDERED. BEGINNING WITH THE SECOND STAGE, TRACTS ARE CLASSIFIED AS HAVING UNDERGONE INVASION BETWEEN 1940 AND 1950 IF THEY HAD FEWER THAN 250 NON-WHITE RESIDENTS IN 1940 AND A NON-WHITE PROPORTION OF LESS THAN 2 PER CENT IN 1940 BUT 250 OR MORE NON-WHITE RESIDENTS IN 1950.

FOR THE THIRD STAGE, THREE SUBCATEGORIES OF CONSOLIDATION ARE DESIGNATED. TRACTS CLASSIFIED AS "EARLY CONSOLIDATION" ARE THOSE HAVING 250 OR MORE NON-WHITE RESIDENTS IN 1950 AND FEWER THAN 250 IN 1940, BUT WITH A NON-WHITE PROPORTION OF 2 PER CENT OR MORE IN 1940. THE SECOND SUBCATEGORY OF CONSOLIDATION, REFERRED TO MERELY AS CONSOLIDATION, INCLUDES TRACTS HAVING 250 OR MORE NON-WHITES IN BOTH 1940 AND 1950, BUT A NON-WHITE PROPORTION UNDER 80 PER CENT AT THE BEGINNING OF THE DECADE. THE THIRD SUBPHASE OF CONSOLIDATION, CALLED "LATE CONSOLIDATION," INVOLVED CENSUS TRACTS HAVING A NON-WHITE POPULATION PROPORTION IN 1940 OF 80 PER CENT OR MORE. THE FINAL STAGE, PILING-UP, INCLUDED TRACTS WITH 97.5 PER CENT OR MORE NON-WHITES IN BOTH 1940 AND 1950.

THE AUTHORS AGREE THAT THE EMPIRICAL APPLICATION OF THESE HYPOTHETICAL STAGES INVOLVES ARBITRARY DECISIONS ON THE SELECTION OF CRITERIA. BASED ON A PURELY PROPORTION NON-WHITE CRITERION, ALTHOUGH THE DUNCANS' CRITERIA ARE MUCH MORE COMPLICATED, IT MAY BE SAID IN

SUMMARY THAT

THE POPULATIO

BLOCKS UNDER

THE POPULATIO

NON-WHITE (T

DATION IS NOT

50 TO 97.4 PE

NON-WHITE.[72]

AFTER DE

SUCCESSION PE

MIGRATION:

> ...IN TH
> INTO FO
> THE CIT
> IS NOT
> LATER S
> IN THEI
> PROPORT
> NEGRO P
> TO ABSO
> AS CAN
> IN SU
> BLE PER
> MIGRANT
> MENT---
> THE MIG
> LATION
> VASION
> RATHER
> PORTION
> WHITE O

---

72. IBID.,

73. IBID.,

SUMMARY THAT INVASION IS CHARACTERIZED BY LESS THAN 2 PER CENT OF THE POPULATION BEING NON-WHITES FOR TRACTS UNDERGOING THIS STAGE. BLOCKS UNDERGOING EARLY CONSOLIDATION REVEAL 2 PER CENT OR MORE OF THE POPULATION AS NON-WHITE, CONSOLIDATION LESS THAN 80 PER CENT NON-WHITE (THE DISTINCTION BETWEEN EARLY CONSOLIDATION AND CONSOLIDATION IS NOT INDICATED ON A PROPORTIONAL BASIS) LATE CONSOLIDATION 80 TO 97.4 PER CENT NON-WHITE, AND PILING-UP 97.5 PER CENT OR MORE NON-WHITE.[72]

AFTER DESCRIBING THE CLASSIFICATION OF STAGES INVOLVED IN THE SUCCESSION PROCESS, THE AUTHORS RELATE THE FOLLOWING DEALING WITH MIGRATION:

> ...IN THE EARLY STAGES OF SUCCESSION THE MOVEMENT OF NEGROES INTO FORMERLY WHITE AREAS IS LED BY THOSE WHO HAVE LIVED IN THE CITY FOR SOME TIME RATHER THAN BY RECENT MIGRANTS. THIS IS NOT IN CONTRADICTION TO THE OBSERVATION THAT TRACTS IN THE LATER STAGES OF SUCCESSION HAVE A HIGHER PROPORTION OF MIGRANTS IN THEIR TOTAL POPULATION THAN THOSE IN THE EARLY STAGES. THE PROPORTION OF MIGRANTS IN THE FORMER GROUP IS LOW BECAUSE THEIR NEGRO POPULATION IS LARGE TO BEGIN WITH AND THEY MAY BE UNABLE TO ABSORB AS MANY MIGRANTS RELATIVE TO THEIR INITIAL POPULATION AS CAN AREAS WHERE NEGROES ARE DISPLACING WHITES.
>
> IN SUMMARY, THE FRAGMENTARY DATA ON MIGRATION THAT ARE AVAILABLE PERMIT THE FOLLOWING INFERENCES: THE BULK OF THE NEGRO MIGRANTS TO CHICAGO ENTER AREAS OF ESTABLISHED NEGRO SETTLEMENT---BY AND LARGE, TRACTS IN THE LATE STAGES OF SUCCESSION. THE MIGRANTS CONTRIBUTE DISPROPORTIONATELY TO THE NEGRO POPULATION GROWTH OF THESE AREAS, AS CONTRASTED TO AREAS OF INVASION AND EARLY CONSOLIDATION. CONVERSELY, OLDER RESIDENTS, RATHER THAN RECENTLY ARRIVED MIGRANTS, CONSTITUTE A DISPROPORTIONATE NUMBER OF THE NEGROES MOVING INTO AREAS OF FORMER WHITE OCCUPANCY.[73]

---

72. IBID., PP. 118-19 AND P. 121.

73. IBID., P. 132.

THE CL

EMPLOYED AS

SUCCESSION,

OF THE FIVE

C-ARACTERIS

ING OF DWEL

"EMPLOYMENT

AND "PERCEN

REFRIGERATI

MANIFEST DI

FROM ONE ST

IN VALUE.

CHARACTERIS

TURNOVER.

AN AREA MAY

CHARACTERIS

CHARACTERIS

OFFER TWO M

THE POPULAT

THE FI
AREA I
OF THE
FACTOR
INERTI
A USEF

74. IBID.,

THE CLASSIFICATION OF CENSUS TRACTS BY STAGES OF SUCCESSION IS EMPLOYED AS THE FRAMEWORK FOR THE ANALYSIS OF THE CHANGES ACCOMPANYING SUCCESSION, REFERRED TO AS THE "CONCOMITANTS OF SUCCESSION." FOR EACH OF THE FIVE PHASES LISTED ABOVE THERE IS A COMPARISON OF THE FOLLOWING CHARACTERISTICS FOR 1940 AND 1950: "POPULATION DENSITY," "ROOM CROWDING OF DWELLING UNITS," "EDUCATIONAL ATTAINMENT," "UNEMPLOYMENT," "EMPLOYMENT IN WHITE-COLLAR OCCUPATIONS," "HOMEOWNERSHIP," "RENT," AND "PERCENTAGE OF DWELLING UNITS WITH CENTRAL HEATING AND MECHANICAL REFRIGERATION." FOR EACH STAGE OF SUCCESSION THESE VARIABLES WILL MANIFEST DIFFERENT VALUES. HYPOTHETICALLY, AS THE CENSUS TRACTS PASS FROM ONE STAGE TO ANOTHER, THESE VARIABLES WILL REVEAL RELATED CHANGES IN VALUE. OF PRIMARY IMPORTANCE, HOWEVER, IS THE "STABILITY" OF AREA CHARACTERISTICS. IN AREAS UNDERGOING SUCCESSION THERE IS A POPULATION TURNOVER. HOWEVER, THE AUTHORS INFER THAT THE POPULATION MOVING INTO AN AREA MAY RESEMBLE THE POPULATION MOVING OUT IN ITS SOCIAL AND ECONOMIC CHARACTERISTICS. THE AREA IS REGARDED AS "STABLE" WITH RESPECT TO THESE CHARACTERISTICS REGARDLESS OF CHANGES IN RACIAL COMPOSITION. THE AUTHORS OFFER TWO MAJOR REASONS FOR EXPECTING SOME DEGREE OF STABILITY DESPITE THE POPULATION TURNOVER:

> THE FIRST MAY BE TERMED THE "SITUATIONAL" FACTOR. EACH LOCAL AREA IN THE CITY HAS A FUNCTIONAL POSITION IN THE ORGANIZATION OF THE CITY AS A WHOLE...THE SECOND MAY BE CALLED THE "SITE" FACTOR. ONCE AN AREA HAS BEEN BUILT UP, THERE IS A CONSIDERABLE INERTIA IN ITS PATTERN OF LAND USE, BECAUSE MOST STRUCTURES HAVE A USEFUL LIFE OF A HUMAN GENERATION OR MORE.[74]

---

74. IBID., PP. 133-4.

THE

PARISON

WITH THO

INFERENC

INITIAL

BETWEEN

WHITE PO

THAT "SU

CHARACTE

RELATIVE

TWEEN TH

THE POPU

OF DIFFE

NECESSAR

OF FORCE

TWEEN WH

IN THE S

INITIAL

POPULATI

AFTER IN

POPULATI

WHE

A SEPARA

---

75. Ibi

76. Ibi

THE TECHNIQUE EMPLOYED TO TEST THIS EXPECTATION WAS THE COMPARISON OF THE CHARACTERISTICS OF THE NON-WHITE POPULATION IN 1950 WITH THOSE OF THE TOTAL POPULATION IN 1940. THIS ALLOWED FOR ROUGH INFERENCES AS TO THE SELECTIVITY INVOLVED IN THE REPLACEMENT OF THE INITIAL POPULATION BY THE INCOMING POPULATION. HIGH CORRELATIONS BETWEEN CHARACTERISTICS OF THE 1950 NON-WHITE AND THOSE OF THE 1940 WHITE POPULATION WERE FOUND. THESE RESULTS SUPPORTED THE HYPOTHESIS THAT "SUCCESSION IS HIGHLY SELECTIVE WITH RESPECT TO THE SOCIAL CHARACTERISTICS OF THE IN-MOVING POPULATION. IN THE SENSE OF A RELATIVE COMPARISON AMONG AREAS, THERE IS A STRONG RESEMBLENCE BETWEEN THE CHARACTERISTICS OF THE INVADING POPULATION AND THOSE OF THE POPULATION REPLACED."[75] HOWEVER, BECAUSE OF THE COMPLEX PATTERN OF DIFFERENCES FOUND IN THE TEMPORAL AND SOCIAL COMPARISONS, IT IS NECESSARY TO RECOGNIZE THE SIMULTANEOUS OPERATION OF SEVERAL SETS OF FORCES OR SELECTIVE FACTORS: "THOSE PRODUCING DIFFERENCES BETWEEN WHITES AND NEGROES AT ANY GIVEN PERIOD OF TIME; THOSE INVOLVED IN THE SELECTIVITY OF THE INVADING POPULATION AS COMPARED WITH THE INITIAL POPULATION; THOSE INVOLVED IN THE SELECTIVITY OF THE DISPLACED POPULATION AS COMPARED WITH THE WHITE POPULATION REMAINING IN AN AREA AFTER INVASION; AND THOSE PRODUCING...CHANGES IN THE WHITE AND NEGRO POPULATION OF THE COMMUNITY AT LARGE."[76]

WHEREAS THE ABOVE COMPARISON TREATED EACH STAGE OF SUCCESSION AS A SEPARATE UNIT OF ANALYSIS, THE AUTHORS ALSO MAKE COMPARISON OF THE

---

75. IBID., PP. 14-5.

76. IBID., P. 15.

STAGES THEMSE

CHANGES ACCOM

CONCLUSION WA

CHARACTERISTI

1940 TO 1950.

ONE STAGE OF

THE WELL-KNOW

ASPECTS OF S

RACIAL SUCCES

OF SOCIO-ECON

THAT AREAS I

SIMULTANEOUS

IN OTHERS.

THE AUTHORS

ABOUT CHANGE

FURTHERMORE,

ISTICS OCCUR

"NO EVIDENCE

PARTICULAR S

TO EXPL

THE CONSEQUE

---

77. IBID.,

78. IBID.,

79. IBID.,

STAGES THEMSELVES IN A FINAL CHAPTER. IN AN ATTEMPT TO DETERMINE THE CHANGES ACCOMPANYING THE DIFFERENT STAGES OF SUCCESSION THE GENERAL CONCLUSION WAS THAT THE SAME KINDS OF CHANGES IN POPULATION AND HOUSING CHARACTERISTICS OCCURRED AT EACH STAGE OF SUCCESSION OVER THE DECADE 1940 TO 1950. "EVERY BROAD STATEMENT ABOUT THE CHANGES OCCURRING AT ONE STAGE OF SUCCESSION WILL BE FOUND TO HOLD FOR ALL OTHER STAGES."[77] THE WELL-KNOWN FACT OF NEGRO INFERIORITY TO WHITES IN REGARD TO ALL ASPECTS OF SOCIO-ECONOMIC STATUS WOULD IMPLY THAT AN AREA UNDERGOING RACIAL SUCCESSION WOULD ALSO EXPERIENCE A DECLINE IN THE OVER-ALL LEVEL OF SOCIO-ECONOMIC STATUS OF ITS POPULATION. HOWEVER, THE DUNCANS FOUND THAT AREAS IN WHICH SUCCESSION OCCURRED BETWEEN 1940 AND 1950 EXHIBITED SIMULTANEOUS RISES IN SOME ASPECTS OF SOCIO-ECONOMIC STATUS AND DECLINES IN OTHERS. AS A RESULT OF THE CONTRARY CHANGES NOTED IN SUCCESSION, THE AUTHORS DECLARE THAT "ONE IS UNABLE TO MAKE A SUMMARY GENERALIZATION ABOUT CHANGES IN SOCIO-ECONOMIC STATUS ACCOMPANYING SUCCESSION."[78] FURTHERMORE, IN VIEW OF THE CHANGES IN POPULATION AND HOUSING CHARACTERISTICS OCCURRING ALONG WITH RACIAL SUCCESSION, THE AUTHORS STATE THAT "NO EVIDENCE (DISCLOSES) THAT ANY GIVEN TYPE OF CHANGE IS UNIQUE TO A PARTICULAR STAGE OF SUCCESSION."[79]

TO EXPLAIN THIS APPARENT IMPASSE THE AUTHORS SUGGEST THAT, SINCE THE CONSEQUENCES OF SUCCESSION CANNOT BE INFERRED FROM THE DIRECTION

---

77. IBID., PP. 237-8.

78. IBID., P. 242.

79. IBID., P. 243.

OF CHANGES IN

SUCH INFERENC

AMONG STAGES

A GIVEN CHARA

OF SUCCESSION

WOULD BE SOM

ISTIC OF INV

THE TERMINAL

CHANGES REVE

DENSITY WAS

STAGES; INCR

STAGES OF SU

LEVEL OCCURR

AND AN INCRE

WORKERS EXHI

SMALL DECREA

OWNERSHIP A

OCCURRED AT

INVASION ST

GRADIENT OV

MOVING

SIDER THE R

RESIDENTIAL

---

60. IBID.,

OF CHANGES IN AVERAGE VALUES OF POPULATION AND HOUSING CHARACTERISTICS, SUCH INFERENCES MUST BE BASED ON COMPARISONS OF THE AMOUNTS OF CHANGE AMONG STAGES OF SUCCESSION. "IF IT COULD BE SHOWN THAT THE CHANGE IN A GIVEN CHARACTERISTIC INVOLVED A LARGE MAGNITUDE AT THE EARLY STAGES OF SUCCESSION BUT ONLY A SMALL MAGNITUDE AT THE LATE STAGES, THERE WOULD BE SOME BASIS FOR INFERRING THAT THIS TYPE OF CHANGE IS CHARACTERISTIC OF INVASION AND THE BEGINNING OF CONSOLIDATION, BUT LESS SO OF THE TERMINAL PHASE OF SUCCESSION."[80] AN ADJUSTMENT APPLIED TO THE CHANGES REVEALED THE FOLLOWING CONCLUSIONS: INCREASE IN POPULATION DENSITY WAS COMPARATIVELY SMALL IN INVASION COMPARED TO THE LATER STAGES; INCREASE IN CROWDING WAS MOST SEVERE AT THE INTERMEDIATE STAGES OF SUCCESSION; COMPARATIVELY LARGE INCREASES IN EDUCATIONAL LEVEL OCCURRED IN INVASION, A SMALL INCREASE FOR EARLY-CONSOLIDATION, AND AN INCREASE THEREAFTER IN LATER STAGES; PROPORTION OF WHITE-COLLAR WORKERS EXHIBITED A LARGE DECREASE AT THE INVASION STAGE AND FELL TO A SMALL DECREASE AT THE PILING-UP STAGE; A SUBSTANTIAL INCREASE IN HOME-OWNERSHIP APPEARED AT THE INVASION STAGE, WHILE SMALLER INCREASES ALSO OCCURRED AT OTHER STAGES; FINALLY RENT INCREASES WERE GREATEST AT THE INVASION STAGE AND LEAST AT THE PILING-UP STAGE WITH A RELATIVELY SMOOTH GRADIENT OVER THE INTERMEDIATE STAGES.

MOVING NOW TO A PRIMARY INTEREST OF THIS THESIS, THE DUNCANS CONSIDER THE RELATION BETWEEN SUCCESSION AND THE DIFFERENTIATION OF NEGRO RESIDENTIAL AREAS. THEY EMPLOY THE FOLLOWING MODELS OF THE EXPANSION

---

80. IBID., P. 244.

OF THE NEG

1. A
BEGAN T
OF THE
AREA OF
WITH TH
BEGAN T
THE 'CO
THE ULT
AVAILAB
OF THE
THEIR M
OTHER A
INVASION
AREAS W
PLACE R
OLDER A
WOULD C
'PORT OF
PHASES O
DENTS OF
LONGER T
AND WOUL

IF THE
AND AN
HE MIGHT
PERIOD O
PRIOR TO
AREAS; A
CLUSIVEL
THE 'PIL
AS WELL
PERIOD U

UNDER
ASSUMED,
OF SUCCES
A GRADIEN
CATORS OF
HIGH INDE
VALUE, AN
ECONOMIC
LOW VALUE
'CONSOLID
CHARACTER
TO EXHIBI
AND CONGES

OF THE NEGRO COMMUNITY TO RELATE THE SUCCESSION AND AREAL DIFFERENTIATION.

I. ASSUME THAT DURING THE PERIOD BEFORE THE NEGRO POPULATION BEGAN TO INCREASE RAPIDLY AS A PROPORTION OF THE TOTAL POPULATION OF THE CITY THERE WAS A 'CORE' SETTLEMENT OF NEGROES, I.E., AN AREA OF PREDOMINANTLY, THOUGH NOT EXCLUSIVELY, NEGRO RESIDENCES. WITH THE BEGINNING OF LARGE-SCALE NEGRO IN-MIGRATION, MIGRANTS BEGAN TO TAKE THE PLACES OF WHITES REMAINING IN THE 'CORE,' AND THE 'CONSOLIDATION' OF THE 'CORE' WAS ACCOMPLISHED RAPIDLY, WITH THE ULTIMATE RESULT THAT PRESSURE OF THE NEGRO POPULATION ON AVAILABLE LIVING SPACE IN THE 'CORE' BECAME SO GREAT THAT SOME OF THE RESIDENTS WERE COMPELLED TO FIND RESIDENCES ELSEWHERE. THEIR MOVEMENT OUT OF THE 'CORE' AMOUNTED TO AN 'INVASION' OF OTHER AREAS. WITH THE CONTINUING PRESSURE OF NEGRO POPULATION, INVASION AREAS WOULD BECOME CONSOLIDATION AREAS, AND NEW INVASION AREAS WOULD APPEAR. THE AREAL EXPANSION, HOWEVER, WOULD NOT TAKE PLACE RAPIDLY ENOUGH TO PREVENT A RISING DENSITY OF POPULATION IN OLDER AREAS OF NEGRO RESIDENCE. FINALLY, ASSUME THAT IN-MIGRANTS WOULD CONTINUE THROUGHOUT THIS PERIOD TO MAKE THE OLD 'CORE' THEIR 'PORT OF ENTRY' AND THAT THE INVASION OF NEW AREAS AND THE EARLY PHASES OF THEIR CONSOLIDATION WOULD BE ACCOMPLISHED BY OLDER RESIDENTS OF THE CITY. THE LATTER, HAVING LIVED IN CHICAGO FOR A LONGER TIME, WOULD BE MORE 'ASSIMILATED' THAN THE RECENT ARRIVALS AND WOULD HAVE RISEN TO HIGHER LEVELS OF SOCIO-ECONOMIC STATUS.

IF THE PROCESS JUST DESCRIBED HAD GONE ON FOR A NUMBER OF YEARS AND AN INVESTIGATOR WERE TO STUDY THE CHANGES DURING A RECENT PERIOD, HE MIGHT CLASSIFY AS 'INVASION' TRACTS THOSE INVADED DURING THE PERIOD OF HIS STUDY; AS 'CONSOLIDATION' TRACTS, THOSE INVADED PRIOR TO THE PERIOD OF HIS STUDY BUT NOT YET EXCLUSIVELY NEGRO AREAS; AND AS 'PILING-UP' TRACTS, THOSE THAT WERE INHABITED EXCLUSIVELY BY NEGROES BEFORE THE PERIOD COVERED BY HIS STUDY BEGAN. THE 'PILING-UP' TRACTS WOULD, OF COURSE, INCLUDE THE OLD 'CORE' AS WELL AS SUCH OTHER TRACTS AS WERE FULLY CONSOLIDATED BEFORE THE PERIOD UNDER INVESTIGATION.

UNDER THE CONDITIONS DESCRIBED AND WITH THE TYPE OF SELECTIVITY ASSUMED, A CROSS-SECTIONAL COMPARISON OF TRACTS GROUPED BY 'STAGE OF SUCCESSION' AS OF THE END OF THE PERIOD UNDER STUDY WOULD REVEAL A GRADIENT PATTERN. WITH RESPECT TO POPULATION DENSITY AND INDICATORS OF HOUSING CONGESTION, THE 'PILING-UP' TRACTS WOULD HAVE HIGH INDEXES, THE 'CONSOLIDATION' TRACTS INDEXES OF INTERMEDIATE VALUE, AND THE 'INVASION' TRACTS LOW INDEXES. INDICATORS OF SOCIO-ECONOMIC STATUS WOULD SHOW A GRADIENT IN THE OPPOSITE DIRECTION, I.E., LOW VALUES FOR THE 'PILING-UP' TRACTS, INTERMEDIATE VALUES FOR THE 'CONSOLIDATION' TRACTS, AND HIGH VALUES FOR THE 'INVASION' TRACTS. CHARACTERISTICS OTHER THAN THOSE MENTIONED WOULD ALSO BE EXPECTED TO EXHIBIT GRADIENT PATTERNS, IF THEY WERE CORRELATED WITH DENSITY AND CONGESTION AND/OR SOCIO-ECONOMIC STATUS. MOREOVER, THE GRADIENT

OBSERVED ON
AS AN INDICA
SUCCESSION O
A DECLINE IN

2. THE S
FIRST BUT BE
ORIENTATION
NEAR THE CEN
NEGRO COMMUN
A RADIAL AX
RADIAL GROW
LATION OCCU
THAT THE IN
AND LOW SOC
INTERMEDIAT
WAS A SELEC
AREA TENDED
THE WHITES

UNDER T
AGAIN DISC
GRADIENT B
UP' TRACTS
VASION TRA
OF NEGRO R

IT IS
WOULD BE
SUCH, FOR
'NORMAL'

THE AU

MODELS FAIL

CHARACTERIS

EXPECTED F

COMPLEX FA

STAGES OF

HOWEVER,

---

81. IBID

OBSERVED ON A CROSS-SECTIONAL BASIS COULD VALIDLY BE REINTERPRETED AS AN INDICATION OF THE TYPE OF CHANGE IN AREA CHARACTERISTICS AS SUCCESSION OCCURS, I.E., AN INCREASE IN CONGESTION (PILING-UP) AND A DECLINE IN SOCIO-ECONOMIC LEVELS.

2. THE SECOND MODEL IS NOT NECESSARILY INCONSISTENT WITH THE FIRST BUT BRINGS IN AN ADDITIONAL ELEMENT, THAT OF THE SPATIAL ORIENTATION OF SUCCESSION. ASSUME THAT THE OLD 'CORE' WAS LOCATED NEAR THE CENTER OF THE CITY AND THAT THE SPATIAL EXPANSION OF THE NEGRO COMMUNITY, BY INVASION AND CONSOLIDATION, TOOK PLACE ALONG A RADIAL AXIS AWAY FROM THE CENTER OF THE CITY. ASSUME, TOO, THAT RADIAL GROWTH OF THE CITY HAD, BEFORE THE EXPANSION OF NEGRO POPULATION OCCURRED, RESULTED IN A ZONATION OR GRADIENT PATTERN SUCH THAT THE INNER ZONES WERE CHARACTERIZED BY HIGH RESIDENTIAL DENSITY AND LOW SOCIO-ECONOMIC STATUS, WITH INTERVENING ZONES BEING OF AN INTERMEDIATE CHARACTER. FINALLY, ASSUME THAT THE SUCCESSION PROCESS WAS A SELECTIVE ONE, IN THAT NEGROES ENTERING A FORMERLY ALL-WHITE AREA TENDED TO RESEMBLE IN THEIR SOCIO-ECONOMIC CHARACTERISTICS THE WHITES WHOM THEY DISPLACED.

UNDER THESE CONDITIONS A STUDY DESIGN LIKE THE ONE DESCRIBED WOULD AGAIN DISCOVER A GRADIENT PATTERN BY 'STAGE OF SUCCESSION' BUT THE GRADIENT BY STAGES WOULD ALSO BE A SPATIAL GRADIENT, SINCE THE 'PILING-UP' TRACTS WOULD BE LOCATED NEAR THE CENTER OF THE CITY AND THE INVASION TRACTS WOULD BE FURTHER FROM THE CITY CENTER THAN OTHER AREAS OF NEGRO RESIDENCE.

IT IS WORTH NOTING THAT IF THE SECOND MODEL HELD PRECISELY, THERE WOULD BE NO POSSIBILITY OF ISOLATING EFFECTS OF RACIAL SUCCESSION AS SUCH, FOR RACIAL SUCCESSION WOULD SIMPLY BE PART AND PARCEL OF THE 'NORMAL' PROCESSES OF URBAN COMMUNITY EXPANSION.[81]

THE AUTHORS, HOWEVER, GO ON TO POINT OUT HOW THESE HIGHLY IDEALIZED MODELS FAIL TO ACCOMMODATE THE FACTS. THEIR FINDINGS SHOW THAT MOST CHARACTERISTICS DID NOT SHOW A REGULAR GRADIENT PATTERN OF THE KIND EXPECTED FROM THE SIMPLIFIED MODELS DESCRIBED ABOVE. BECAUSE OF THE COMPLEX FASHION IN WHICH EXPANSION TAKES PLACE, THE CLASSIFICATION OF STAGES OF SUCCESSION IS BY NO MEANS EQUIVALENT TO A ZONAL CLASSIFICATION. HOWEVER, ZONAL GRADIENTS FOR MANY CHARACTERISTICS OF NEGRO RESIDENTIAL

---

81. IBID., P. 252.

AREAS ARE FA

THAT THESE G

SOME TIME AN

FOR THE CITY

THE ZONAL DI

DEPENDENT ON

THE FACT THA

NEGRO IN-MOV

SOCIO-ECONOM

A RELATIVELY

STAGES OF SU

THE RECENCY

AREAS HAVE E

INVASION REP

LY "DESIRABL

AMONG AREAS

LY IN TERMS

AT LARGE RAT

THE FAC

PLIED THE NO

AND ECONOMIC

GRAPHICALLY

---

62. IBID.,

63. IBID.,

AREAS ARE FAIRLY CLEAR. "FOR THE MOST PART, IT CAN BE ASSUMED, FIRST, THAT THESE GRADIENTS FOR THE NEGRO POPULATION HAVE BEEN PRESENT FOR SOME TIME AND SECOND, THAT SIMILAR GRADIENTS WOULD APPEAR IN AN ANALYSIS FOR THE CITY AS A WHOLE. TO SOME EXTENT, THEN, IT IS PROBABLY TRUE THAT THE ZONAL DIFFERENTIATION OF THE NEGRO COMMUNITY IS DUE TO FORCES NOT DEPENDENT ON THE PROCESSES OF RACIAL SUCCESSION, PER SE, EXCEPT FOR THE FACT THAT THE SUCCESSION PROCESS IS A SELECTIVE ONE IN SO FAR AS NEGRO IN-MOVERS TEND TO RESEMBLE THE POPULATION BEING DISPLACED IN SOCIO-ECONOMIC CHARACTERISTICS."[82] EVEN THOUGH INVASION AREAS SHOW A RELATIVELY FAVORABLE POSITION TO OTHER AREAS CHARACTERIZED BY LATER STAGES OF SUCCESSION, THIS CANNOT BE EXPLAINED ONLY ON THE BASIS OF THE RECENCY OF SUCCESSION. THE EXPLANATION APPEARS TO BE THAT THESE AREAS HAVE ENJOYED A RELATIVELY FAVORABLE STATUS FOR A LONG TIME. THUS, INVASION REPRESENTS AN EXPANSION OF THE NEGRO COMMUNITY INTO COMPARATIVELY "DESIRABLE" AREAS. FURTHERMORE, THE DUNCANS DECLARE "THAT DIFFERENCES AMONG AREAS IN DIFFERENT STAGES OF SUCCESSION CAN BE ACCOUNTED FOR LARGELY IN TERMS OF FORCES PRODUCING AREAL DIFFERENTIATION IN THE COMMUNITY AT LARGE RATHER THAN FACTORS SPECIFIC TO ONE OR TWO STAGES OF SUCCESSION."[83]

THE FACT REMAINS THAT MANY WRITERS HAVE PERHAPS UNINTENTIONALLY IMPLIED THE NOTION THAT THE NEGRO COMMUNITY IS OF A HIGH DEGREE OF SOCIAL AND ECONOMIC HOMOGENEITY. IN A FINAL SECTION, DUNCAN AND DUNCAN CARTOGRAPHICALLY POINT UP THE CONSIDERABLE RANGE OF VARIATION AMONG DIFFERENT

---

82. IBID., P. 261.

83. IBID., P. 268.

SECTORS OF TH

THE AUTHORS H

PROBLEM:

> ...IT AP
> TO SOCIO
> PATTERN
> IS SEGRE
> BUT WITH
> GROUPS T
> SEGREGAT
> FORCES T
> THE URB
> NEGRO A
> FINDING
> SPECT T
> ECONOMI
> UNDER T

ON THE

THESIS NOW E

RACIAL SUCC

IT IS THIS

THE REMAIND

---

34. IBID

SECTORS OF THE NEGRO POPULATION, AS CLASSIFIED BY AREA OF RESIDENCE. THE AUTHORS HAVE THE FOLLOWING STATEMENT TO MAKE RELEVANT TO THIS PROBLEM:

> ...IT APPEARS THAT THE PATTERN OF DIFFERENTIATION WITH RESPECT TO SOCIO-ECONOMIC STATUS IN THE NEGRO COMMUNITY RESEMBLES THE PATTERN OF DIFFERENTIATION IN THE WHITE COMMUNITY. THE NEGRO IS SEGREGATED RESIDENTIALLY FROM THE WHITE POPULATION IN CHICAGO; BUT WITHIN BOTH THE NEGRO AND THE WHITE COMMUNITY, HIGH-STATUS GROUPS TEND TO SHARE RESIDENTIAL AREAS AND TO BE RESIDENTIALLY SEGREGATED FROM LOW-STATUS GROUPS. APPARENTLY, THE SELECTIVE FORCES WHICH PRODUCE DIFFERENTIATION OF RESIDENTIAL AREAS IN THE URBAN COMMUNITY OPERATE IN SOMEWHAT THE SAME WAY UPON THE NEGRO AND WHITE POPULATION. THIS IS ALSO IN LINE WITH THE FINDING THAT PATTERNS OF INTERAREA DIFFERENTIATION WITH RESPECT TO PHYSICAL CHARACTERISTICS OF THE AREA AND SOCIAL AND ECONOMIC CHARACTERISTICS OF THE RESIDENTS TEND TO BE MAINTAINED UNDER THE IMPACT OF SUCCESSION FROM WHITE TO NEGRO OCCUPANCY.[84]

ON THE BASIS OF WHAT HAS BEEN RECORDED ABOVE, THE PROBLEM OF THIS THESIS NOW BECOMES MORE APPARENT: WHAT IS THE RELATIONSHIP BETWEEN RACIAL SUCCESSION AND AREA DIFFERENTIATION WITHIN THE NEGRO COMMUNITY? IT IS THIS PROBLEM WHICH HAS BEEN SELECTED AS THE PRIMARY FOCUS OF THE REMAINDER OF THIS THESIS.

---

84. IBID., PP. 297-98.

A CAS
AS EC

INTRODUCTION

THE CENT
HYPOTHESES DE
ECOLOGICAL PI
DISCUSSION O
ZATION OF IT
ECOLOGICAL P
NEGRO COMMUN
VASION-SUCCE
ENTIATION CA
AND INVASIO
BETWEEN THE
URBAN COMMU
LEAST REFER
THE NATURAL

IN TH
OF SEGREGA
CITY OF GR
OF TESTABL
WHICH TO

CHAPTER III

A CASE STUDY: SEGREGATION AND INVASION-SUCCESSION AS ECOLOGICAL PROCESSES OPERATIVE IN GRAND RAPIDS

INTRODUCTION

THE CENTRAL PROBLEM OF THIS THESIS IS NOT THE TESTING OF HYPOTHESES DERIVED FROM THE RELEVANT THEORY OF THESE SELECTED ECOLOGICAL PROCESSES. THE INTENTION OF INCLUDING THE PREVIOUS DISCUSSION OF SEGREGATION AND INVASION-SUCCESSION IS THE UTILIZATION OF IT AS AN APPROACH TO ANOTHER RELATED BUT DISTINCT ECOLOGICAL PROCESS: AREAL DIFFERENTIATION WITHIN A SEGREGATED NEGRO COMMUNITY. IT IS ONLY IN A CONTEXT OF SEGREGATION AND INVASION-SUCCESSION THAT SUCH AN INTERNAL PROCESS OF AREAL DIFFERENTIATION CAN BE FULLY UNDERSTOOD. THE PROCESSES OF SEGREGATION AND INVASION-SUCCESSION DESCRIBE MORE THE EXTERNAL RELATIONSHIP BETWEEN THE "NATURAL AREAS" OF AN URBAN COMMUNITY AND THE TOTAL URBAN COMMUNITY ITSELF. AREAL DIFFERENTIATION IN THIS THESIS AT LEAST REFERS TO AN INTERNAL PROCESS OPERATING WITHIN THE LIMITS OF THE NATURAL AREA.

IN THIS CHAPTER GENERALIZATIONS WILL BE DERIVED FROM THE "THEORY OF SEGREGATION AND INVASION-SUCCESSION" AND APPLIED TO OUR CASE STUDY CITY OF GRAND RAPIDS. THESE GENERALIZATIONS WILL NOT BE IN THE FORM OF TESTABLE HYPOTHESES. RATHER, THEY WILL BE USED AS GUIDELINES BY WHICH TO CONSTRUCT A MEANINGFUL IMAGE OF THE PARTICULAR NEGRO COMMUNITY

TO BE STUDIED

BE MORE THORO

LATER AND WI

ENTIATION WI

TWO PER

AT THIS POI

EMPLOYING "

OF URBAN P

UTILITY OF

BE UTILIZ

OF STUDY.

RESEARCHE

DEFINING

THE

THE DEV

PRIMARI

AND IT

THE DE

METROP

SHOW A

IF TH

OF A

PAREN

TO BE STUDIED, WITHIN WHICH THE PROCESS OF AREAL DIFFERENTIATION CAN BE MORE THOROUGHLY ANALYZED. SPECIFIC HYPOTHESES WILL BE DERIVED LATER AND WILL BE DIRECTED TOWARD THE UNDERSTANDING OF AREAL DIFFERENTIATION WITHIN A NEGRO COMMUNITY.

TWO PERVADING PURPOSES OF THIS STUDY SHOULD ALSO BE UNDERLINED AT THIS POINT. FIRST, THIS STUDY WISHES TO POINT UP THE UTILITY OF EMPLOYING "NATURAL AREAS" AS FOCAL POINTS FOR MORE INTENSIVE STUDIES OF URBAN PHENOMENA. REGARDLESS OF THE DOUBTS AS TO THE REALITY AND UTILITY OF SUCH A CONCEPT, THE NATURAL AREAS OF AN URBAN CENTER CAN BE UTILIZED FOR THE PURPOSE OF MORE PRECISE DELINEATION OF THE OBJECT OF STUDY. THUS, THE USE OF NATURAL AREAS IN THIS MANNER ENABLE URBAN RESEARCHERS TO OVERCOME THE COMMON OBSTACLE OFTEN CONFRONTED: THE DEFINING OF WHAT SPECIFICALLY IS TO BE STUDIED.

THE SECOND POINT CONCERNS AN OVERSIGHT WHICH HAS EVOLVED WITH THE DEVELOPMENT OF THE NATURAL AREA CONCEPT. NATURAL AREAS WERE PRIMARILY CONCEPTUALIZED AS AREAS MANIFESTING COMMON CHARACTERISTICS AND IT WAS ON THIS BASIS THAT THEY COULD BE EMPIRICALLY DELINEATED. THE DELINEATION OF NATURAL AREAS GAVE A GENERAL PATTERN TO AN ENTIRE METROPOLITAN AREA AS A WHOLE. AT THIS LEVEL, THEREFORE, NATURAL AREAS SHOW A HIGH LEVEL OF HOMOGENEITY IN CONTRAST TO EACH OTHER. HOWEVER, IF THE LEVEL OF OBSERVATION WERE TO DROP TO THE LEVEL OF AN ANALYSIS OF A SINGLE NATURAL AREA, THIS HOMOGENEITY WOULD NO LONGER BE AS APPARENT. THIS THESIS WISHES TO ILLUSTRATE THIS LAST POINT BY PRESENTING

AN ANALYSIS

IN TERMS OF

FINALL

THE PRESENT

SHOULD BE M

ING TO DESC

ESSES "ARE

ANGLES, WH

EXHIBIT TH

PROCESS IM

TO REPRESE

RATHER THA

CRITICISM

LIMITATION

THE S

NESS OF TH

ANALYTICAL

BUT IN REA

SION OF SE

WILL UTILI

---

1. ALIHAN
COLUMB

AN ANALYSIS OF THE NEGRO COMMUNITY AS A "NATURAL AREA" OF GRAND RAPIDS IN TERMS OF AREAL DIFFERENTIATION.

FINALLY, BEFORE PROCEEDING TO THE CASE STUDY, TWO DIFFICULTIES IN THE PRESENTATION OF THE PROCESSES OF SEGREGATION AND INVASION-SUCCESSION SHOULD BE MENTIONED. FIRST, THERE IS A DEFINITE LIMITATION IN ATTEMPTING TO DESCRIBE A PROCESS. AS STATED ABOVE, ALIHAN MENTIONS THAT PROCESSES "ARE PRESENTED TO US LIKE A SERIES OF SNAPSHOTS, FROM DIFFERENT ANGLES, WHICH CAN BE GIVEN A MECHANICAL ANIMATION, BUT WHICH DO NOT EXHIBIT THE REAL INTERNAL CONTINUITY OF THE PROCESS THEY REPRESENT."[1] PROCESS IMPLIES A CHANGING PATTERN, BUT THE DESCRIPTIVE APPROACH USED TO REPRESENT THIS CHANGING PATTERN PLACES THE EMPHASIS UPON STRUCTURE RATHER THAN CHANGE OF THE PARTICULAR PROCESS. IN THIS THESIS THIS CRITICISM HOLDS TRUE AND THE READER MUST BE MADE AWARE OF SUCH A LIMITATION.

THE SECOND DIFFICULTY RELEVANT TO THIS CHAPTER IS THE INTERRELATEDNESS OF THE PROCESSES OF SEGREGATION AND INVASION-SUCCESSION. AT AN ANALYTICAL LEVEL THE TWO PROCESSES CAN BE SEPARATED TO A CERTAIN EXTENT, BUT IN REALITY, THIS DIVISION DOES NOT EXIST. AS A RESULT, THE DISCUSSION OF SEGREGATION AND OF INVASION-SUCCESSION MAY OVERLAP AND AT TIMES WILL UTILIZE THE SAME DATA AND FIGURES IN AN ATTEMPT TO DESCRIBE THEM.

---

1. ALIHAN, MILLA A., SOCIAL ECOLOGY: A CRITICAL ANALYSIS. NEW YORK: COLUMBIA UNIVERSITY PRESS, 1938. PP. 136-7.

THE CITY O

GRAND

OF THIS CA

STATISTICA

INCORPORAT

YEARS TURI

IN FURNITU

IS NO LON

TODA
TRADES
REFRIG
STAMPI
THE AR
OFFICE
CRAFT
SECOND
AND FO
MANU
RETAIL
MAJOR

IT

AS A MAN

TRANSPOR

NEGRO PO

---

2. PRES
EAS
SER

The City of Grand Rapids

Grand Rapids, Michigan, the urban setting employed as the object of this case study, is to date the third largest Standard Metropolitan Statistical Area in Michigan, second only to Flint and Detroit. Its incorporation as a city occurred in 1850. Grand Rapids in its early years turned to furniture manufacturing and became a national leader in furniture making and design. Today, however, furniture manufacturing is no longer its major industry.

> Today the most important manufactured products are metal trades: the manufacture of body parts, automotive parts, refrigerator cabinets, many types of hardware, machine tools, stampings, castings, extruded metals, alloys and die castings. The area is also leader in the production of business machines, office equipment, carpet sweepers, fiberboard containers, aircraft and electronic devices. Furniture manufacturing ranks second in importance, followed by printing and publishing, and food and kindred products.
>
> Manufacturing is most important in the area's economy but retail trade, construction, and wholesale trade are also of major importance in that order.[2]

It is against this background, i.e., the growth of Grand Rapids as a manufacturing center, a wholesale and retail center, and a transportation center, that the growth and characteristics of the Negro population in this community can be partially explained.

---

2. Press, Charles, When One-Third of A City Moves to the Suburbs. East Lansing, Michigan: Institute for Community Development and Services, 1959.

THE GROWTH OF

PREVIOUS

SIGNIFICANTLY

THE NEGRO PO

PRISED ONLY (

THE NON-WHIT

CITY POPULAT

SLIGHT INCRE

TIONATELY TH

POPULATION D

CITY AS A WH

ATTRACTED BO

NEGROES ADDE

LATION TO 2,

THE PE

AND NEGRO P

YEARS LOST

WAS A CHANG

TOTAL POPUL

OF WORLD WA

PERIOD FOR

---

3. ALTHOU
POPULA
WILL B
THERE
THE SA

The Growth of the Negro Population

Previous to 1940 the Negro population[3] in Grand Rapids was significantly small. With the earliest recording of the size of the Negro population in 1900, given in Table I, non-whites comprised only 0.7% of the total population of the city. In number the non-white population of 1900 was only 604 compared to a total city population of 87,565. Within the decade 1910 - 1920 came a slight increase in absolute number of Negroes (425) but proportionately they remained less than one per cent (0.8%) of the total population due to a comparable increase of the population of the city as a whole. Between 1920 and 1930 the prosperity of the city attracted both whites and non-whites to a considerable degree. Negroes added 1,866 during this period bringing the Negro population to 2,956 or 1.8% of the total population.

The period between 1930 to 1940 brought a decrease in both total and Negro population. The total population during the depression years lost 4,300, while non-whites were reduced by 231. The result was a change of only 0.1% in the proportion of non-whites to the total population of Grand Rapids during this period. With the end of World War II and the post-war prosperity came another expansion period for the population of Grand Rapids. However, while the total

---

3. Although census data utilized to present the growth of the Negro population for Grand Rapids employs the term "non-white," this term will be used interchangeably with "Negro" throughout this thesis. There is little evidence to show that the two are not approximately the same.

TABLE I. C

Year	Total Population
1900	67
1910	112
1920	157
1930	163
1940	164
1950	170
1960	177

Source:

TABLE I. GROWTH OF THE NEGRO POPULATION OF GRAND RAPIDS, MICHIGAN: 1900-1960.

Year	Total Population	Increase		Negro Population	Increase		Per cent Negro of Total Population
		Number	Per cent		Number	Per cent	
1900	87,565	---	---	604	---	---	0.7
1910	112,571	25,006	28.6	665	61	10.1	0.6
1920	137,634	25,063	22.3	1,090	425	63.9	0.8
1930	168,592	30,958	22.5	2,956	1,866	171.2	1.8
1940	164,292	-4,300	-2.6	2,725	-231	-7.8	1.7
1950	176,515	12,723	7.4	6,912	4,187	153.7	3.9
1960	177,313	798	0.4	14,717	7,805	112.9	8.3

Source: U. S. Bureau of Census

POPULATION

SHOWED AN

ING TO NOTI

1950 THE N

INCREASE.

3.9% OF TH

THE P

CHANGE IN

IN THIS PE

1960 MAKES

CITY. IN

RAPIDS ON

REVEALED

FROM SURR

POPULATIO

OUTMIGRA

AND 1960

THE NEGR

IN A FOL

WHI

COMPARE

IN TABL

CITIES.

POPULATION ADDED 12,723 OR A 7.4% INCREASE, THE NEGRO POPULATION SHOWED AN INCREASE OF 4,187 OR A 153.7% INCREASE. IT IS INTERESTING TO NOTE THAT OF THE TOTAL POPULATION INCREASE BETWEEN 1940 AND 1950 THE NON-WHITES COMPRISED APPROXIMATELY ONE-THIRD OF THIS TOTAL INCREASE. IN 1950 THE NEGRO POPULATION, AS A RESULT, COMPRISED 3.9% OF THE TOTAL POPULATION OF THE ENTIRE CITY.

THE PERIOD OF 1950 TO 1960, HOWEVER, SHOWS THE MOST SIGNIFICANT CHANGE IN THE GROWTH OF THE NEGRO POPULATION. THE NEGRO POPULATION IN THIS PERIOD MORE THAN DOUBLED IN SIZE FROM 6,912 TO 14,717 AND IN 1960 MAKES UP PROPORTIONATELY 8.3% OF THE TOTAL POPULATION OF THE CITY. IN CONTRAST TO THIS INCREASE THE TOTAL POPULATION OF GRAND RAPIDS ONLY INCREASED BY 798. AN EARLY CENSUS ENUMERATION FOR 1960 REVEALED A SLIGHT DECREASE IN POPULATION, BUT AFTER A FEW ANNEXATIONS FROM SURROUNDING AREAS THE FINAL TOTAL RECORDED A SLIGHT INCREASE IN POPULATION. THE CONCLUSION MAY BE DRAWN AT THIS POINT THAT A LARGE OUTMIGRATION OF THE WHITE POPULATION HAS TAKEN PLACE BETWEEN 1950 AND 1960 WHILE IN-MIGRATION AND NATURAL INCREASE ADDED GREATLY TO THE NEGRO POPULATION OF THE CITY. THIS WILL BE SHOWN MORE CLEARLY IN A FOLLOWING SECTION.

WHEN THE GROWTH OF THE NON-WHITE POPULATION OF GRAND RAPIDS IS COMPARED TO OTHER LARGE METROPOLITAN CENTERS OF MICHIGAN, AS PRESENTED IN TABLE 2, IT CAN BE SEEN THAT THE SAME TREND IS APPARENT IN ALL THESE CITIES. THE NON-WHITE POPULATION IN THESE LARGE URBAN AREAS HAVE

TABLE II. GROWTH OF THE NON-WHITE POPULATION IN SIX SELECTED MICHIGAN METROPOLITAN CENTERS: 1930-1960.

City	1930			1940		
	Total Population	Non-White Population	Per Cent Non-White	Total Population	Non-White Population	Per Cent Non-White

TABLE II. GROWTH OF THE NON-WHITE POPULATION IN SIX SELECTED MICHIGAN METROPOLITAN CENTERS: 1930-1960.

City	1930 Total Population	1930 Non-White Population	1930 Per cent Non-White	1940 Total Population	1940 Non-White Population	1940 Per cent Non-White
Detroit	1,568,662	122,006	7.8	1,623,452	150,790	9.3
Flint	156,492	5,834	3.7	151,543	6,685	4.4
Pontiac	64,928	2,650	4.1	66,626	2,838	4.3
Saginaw	80,715	2,906	3.6	82,794	3,410	4.1
Grand Rapids	168,592	2,956	1.8	164,292	2,725	1.7
Lansing	78,397	1,453	1.9	78,753	1,666	2.1

City	1950 Total Population	1950 Non-White Population	1950 Per cent Non-White	1960 Total Population	1960 Non-White Population	1960 Per cent Non-White
Detroit	1,849,568	303,329	16.4	1,670,144	487,682	29.2
Flint	163,143	14,030	8.6	196,940	34,858	17.7
Pontiac	73,681	6,999	9.5	82,233	13,980	17.0
Saginaw	92,918	8,641	9.3	98,265	16,705	17.0
Grand Rapids	176,515	6,912	3.9	177,313	14,717	8.3
Lansing	92,129	3,040	3.3	107,807	7,007	6.5

Source: U. S. Bureau of Census.

EXPANDED T

THE HIGHES

WITH 17.7

RAPIDS AND

RESPECTIVE

HAS A SMAL

BASIS OF T

CITY OF M

THAN DO P

RAPIDS. T

RESULTING

WITH THE

ASSOCIATE

ARE BEGIN

WITH

LATION OF

1950 AND

INCREASE

OF TWO PR

MIGRATION

THE GROWT

MARILY TO

BEEN FOR

EXPANDED TREMENDOUSLY BETWEEN 1940 AND 1960. IN 1960 DETROIT SHOWS THE HIGHEST PROPORTION OF NON-WHITES WITH 29.2%, WHILE FLINT IS NEXT WITH 17.7%, THEN PONTIAC AND SAGINAW WITH 17.0%, AND FINALLY GRAND RAPIDS AND LANSING SHOWING THE LOWEST PROPORTIONS WITH 8.3% AND 6.5% RESPECTIVELY. IT IS SIGNIFICANT TO NOTE, HOWEVER, THAT GRAND RAPIDS HAS A SMALLER PROPORTION OF NON-WHITES THAN WOULD BE EXPECTED ON THE BASIS OF TOTAL POPULATION SIZE. GRAND RAPIDS IS THE THIRD LARGEST CITY OF MICHIGAN, BUT IT REVEALS A MUCH LOWER PROPORTION OF NON-WHITES THAN DO PONTIAC AND SAGINAW WHICH ARE ABOUT HALF AS LARGE AS GRAND RAPIDS. THIS DIFFERENCE HAS MEANT FEWER PROBLEMS FOR GRAND RAPIDS RESULTING FROM A CONSTANTLY EXPANDING NON-WHITE POPULATION. HOWEVER, WITH THE INCREASE OF NON-WHITES BETWEEN 1950 AND 1960, MANY PROBLEMS ASSOCIATED WITH AN INCREASE IN NEGRO POPULATION OF MAJOR URBAN CENTERS ARE BEGINNING TO BE MANIFEST IN GRAND RAPIDS ALSO.

WITH REGARD TO THE COMPONENTS OF THE GROWTH OF THE NEGRO POPULATION OF GRAND RAPIDS, SOME INFERENCES CAN BE PRESENTED. BETWEEN 1950 AND 1960 THE NEGRO POPULATION INCREASED BY 7,805 OR A 112.9% INCREASE OVER 1950. POPULATION GROWTH TAKES PLACE WITH A COMBINATION OF TWO PROCESSES: EXCESS OF BIRTHS OVER DEATHS AND EXCESS OF IN-MIGRATION OVER OUT-MIGRATION. NO SPECIFIC DATA IS GIVEN AS TO WHETHER THE GROWTH OF THE NEGRO POPULATION BETWEEN 1950 AND 1960 WAS DUE PRIMARILY TO THE FORMER OR THE LATTER PROCESS. THE TREND IN THE PAST HAS BEEN FOR THE NEGRO POPULATION OF LARGE NORTHERN URBAN CENTERS TO

INCRE

STATE

CREAS

ROLE

CITY

EXCEE

79%.

THE

INDI

SUBU

OF T

POPU

A LA

THE

LATI

BIRT

BETW

DUE

HIGH

4.

INCREASE AT A RAPID RATE DUE TO A HEAVY IN-MIGRATION FROM THE SOUTHERN STATES. HOWEVER, DUNCAN AND DUNCAN HAVE SUGGESTED THAT NATURAL INCREASE IN CONTRAST TO IN-MIGRATION IS BEGINNING TO PLAY AN IMPORTANT ROLE IN THE GROWTH OF THE NEGRO POPULATION OF CHICAGO.[4]

IN TABLE 3 THE FIGURES INDICATE THAT POPULATION INCREASE FOR THE CITY OF GRAND RAPIDS WAS DUE ENTIRELY TO NATURAL INCREASE. BIRTHS EXCEEDED DEATHS BY 34,546, YET POPULATION INCREASE AMOUNTED TO ONLY 798. AS A RESULT, THERE MUST HAVE BEEN EXTENSIVE MIGRATION OUT OF THE CITY AMOUNTING TO 33,748. THE INCREASE IN THE BALANCE OF COUNTY INDICATES A RAPID MIGRATION OUT OF THE CITY INTO THE SURROUNDING SUBURBAN AREAS. THIS WILL BE SUBSTANTIATED IN THE FOLLOWING SECTION OF THIS THESIS. HOWEVER, CONSIDERING THE INCREASE 7,805 IN THE NEGRO POPULATION OF THE CITY BETWEEN 1950 AND 1960, IT MAY BE CONCLUDED THAT A LARGE PART OF THIS INCREASE WAS DUE TO IN-MIGRATION OF NEGROES INTO THE CITY. ON THE BASIS OF BIRTHS AND DEATHS FOR THE TOTAL CITY POPULATION, ASSUMING THAT NEGROES AND WHITES HAD APPROXIMATELY THE SAME BIRTH RATE, IT CAN BE SAID THAT 26 PER CENT OF THE NEGRO INCREASE BETWEEN 1950 AND 1960 WAS DUE TO NATURAL INCREASE AND 74 PER CENT DUE TO IN-MIGRATION. (SEE TABLE 41 IN APPENDIX)

THIS INCREASE OF NEGROES IN THE CENTRAL CITY, TOGETHER WITH THE HIGH MIGRATION OF WHITES OUT OF THE CENTRAL CITY, IS A RECENT PHENOMENON

---

4. DUNCAN, OTIS DUDLEY AND DUNCAN, BEVERLY., THE NEGRO POPULATION: A STUDY OF RESIDENTIAL SUCCESSION. CHICAGO: UNIVERSITY OF CHICAGO PRESS, 1957. PP. 29-30.

TABLE

Popu
Natu
Net
Per d
Bir
De
Na
Ne

S

TABLE III. COMPONENTS OF POPULATION GROWTH FOR KENT COUNTY, CITY OF GRAND RAPIDS, AND BALANCE OF COUNTY: APRIL 1, 1950 TO APRIL 1, 1960

	KENT COUNTY	CITY OF GRAND RAPIDS	BALANCE OF COUNTY
POPULATION INCREASE	74,895	798	69,576
NATURAL INCREASE	60,502	34,546	25,126
NET MIGRATION	14,393	-33,748	44,450
PER CENT OF POPULATION GROWTH DUE TO NET MIGRATION	19	0	64
BIRTH RATE	27.8	30.9	24.6
DEATH RATE	9.2	11.4	6.7
NATURAL INCREASE RATE	18.6	19.5	17.9
NET MIGRATION AS A PER CENT OF 1950 POPULATION	5.0	-19.1	23.8

SOURCE: TABLE 4, KENT COUNTY, MICHIGAN, POPULATION CHANGES, 1950 TO 1960, POTENTIALS FOR 1970., BY J. F. THADEN. TECHNICAL BULLETIN REV. 1 B-16, INSTITUTE FOR COMMUNITY DEVELOPMENT, MICHIGAN STATE UNIVERSITY, 1961.

IN MA

DEVE

THORO

CENT

OF O

COUN

BAN

SUBU

GROW

CITI

FIGU

SURR

AREA

4,52

INCR

AREA

PER

INCR

THIS

FLOW

AREAS

POPUL

IN MANY LARGER METROPOLITAN CENTERS IN THE UNITED STATES. THIS DEVELOPMENT WITH RESPECT TO GRAND RAPIDS WILL BE DEALT WITH MORE THOROUGHLY IN A FOLLOWING SECTION.

CENTRAL CITY VERSUS SUBURBAN FRINGE

EVIDENCE HAS ALREADY BEEN PRESENTED ABOVE AS TO THE RAPID RATE OF OUT-MIGRATION FROM THE CENTRAL CITY AREA OF GRAND RAPIDS. THE COUNTERPART TO THIS OUT-MIGRATION IS A RAPID EXPANSION OF THE SUBURBAN FRINGE AREA OF THE CITY. IN TABLE 4 THIS EXTREME GROWTH OF THE SUBURBAN AREA BETWEEN 1950 AND 1960 AS COMPARED TO THE POPULATION GROWTH OF THE CENTRAL CITY IS CLEARLY PRESENTED. THE SURROUNDING CITIES AND TOWNSHIPS OF GRAND RAPIDS ARE GEOGRAPHICALLY LOCATED IN FIGURE 1 AND THE SIZE OF THEIR POPULATION INCREASE LISTED. OF THESE SURROUNDING CITIES AND TOWNSHIPS MAKING UP GRAND RAPIDS' METROPOLITAN AREA, EAST GRAND RAPIDS HAS SHOWN THE LEAST ABSOLUTE INCREASE, WITH 4,521 ADDED BETWEEN 1950 AND 1960. WYOMING, ON THE OTHER HAND, HAS INCREASED BY 16,852, THE LARGEST ABSOLUTE INCREASE IN THE METROPOLITAN AREA. THUS, WHILE THE CENTRAL CITY SHOWS AN INCREASE OF ONLY 798, A PER CENT INCREASE OF 0.4, THE TOTAL SUBURBAN FRINGE AREA SHOWS AN INCREASE OF 57,492, AN 80.6% INCREASE. WITH REGARD TO DIRECTION OF THIS GROWTH, ALTHOUGH FIGURE 1 SHOWS THAT THE SUBURBAN EXPANSION IS FLOWING IN ALMOST ALL DIRECTIONS OUT FROM THE CENTRAL CITY, THE SOUTHERN AREAS OF THE SUBURBAN FRINGE SEEM TO SHOW THE GREATER INCREASES IN POPULATION.

TABLE I

CITY OR TOWNSHI	
GRAND R	
EAST GR	
PLAINFI	
GRANDVI	
WALKER	
GRAND R	
PARIS T	
WYOMING	
TOTAL S	
TOTAL M	
KENT CO	

A ANNEX

B ANNEX

C WYOMI

TABLE IV. POPULATION INCREASE FOR GRAND RAPIDS AND SURROUNDING MINOR CIVIL DIVISIONS: 1950-1960.

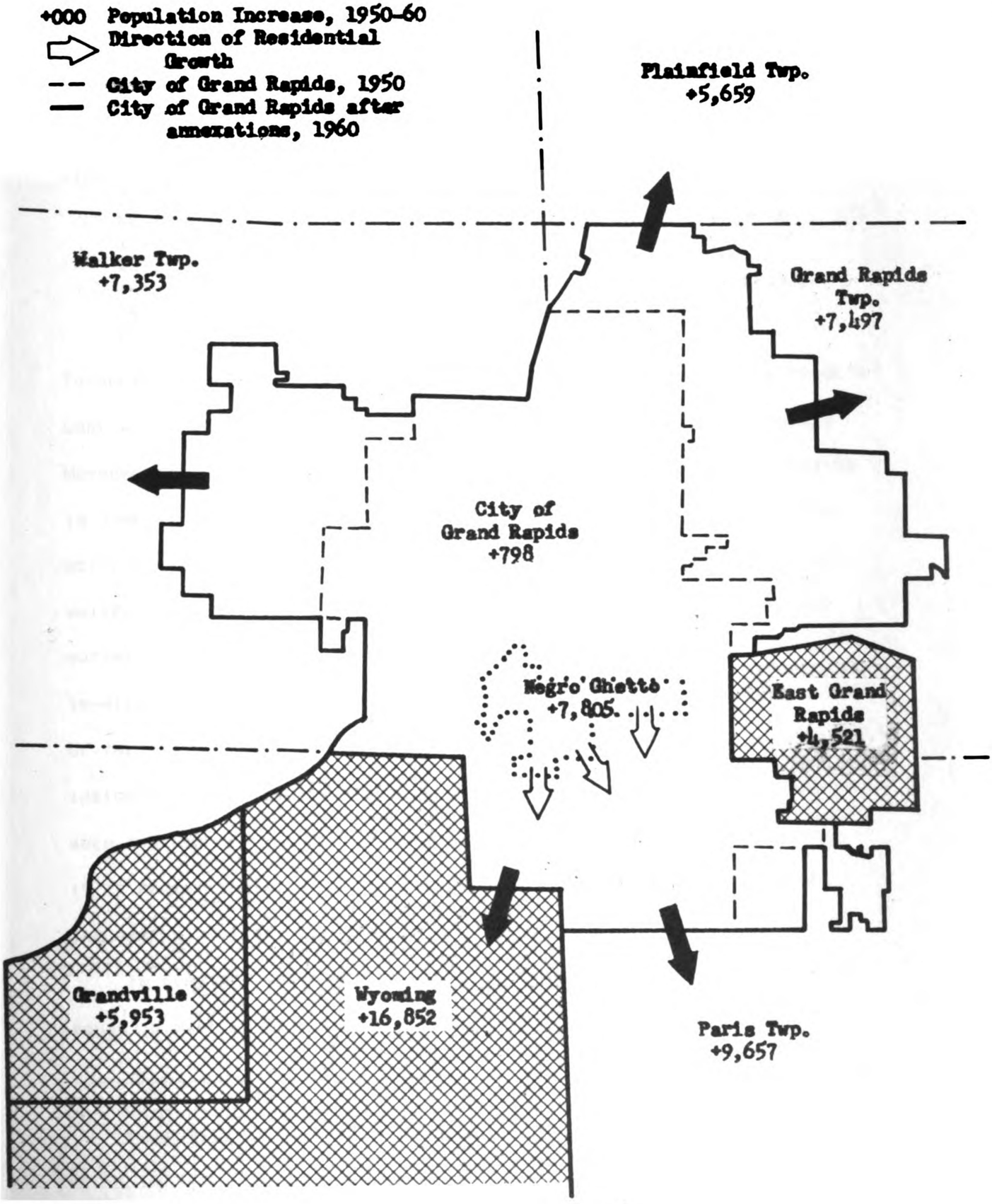
City or Township	Population 1950	Population 1960	Increase	Per cent Increase
Grand Rapids city[A]	176,515	177,313	798	0.4
East Grand Rapids city	6,403	10,924	4,521	70.6
Plainfield Township	6,021	11,680	5,659	94.0
Grandville city[B]	2,022	7,975	5,953	294.4
Walker Township	9,028	16,381	7,353	81.4
Grand Rapids Township	9,241	16,738	7,497	81.1
Paris Township	9,578	19,235	9,657	100.8
Wyoming city[C]	28,977	45,829	16,852	58.2
Total Suburban fringe	71,270	128,762	57,492	80.6
Total Metropolitan area	247,785	306,075	58,290	23.5
Kent County	288,292	363,187	74,895	26.0

[A] annexed part of Wyoming, Grand Rapids, and Paris townships

[B] annexed part of Wyoming township

[C] Wyoming city incorporated as a city between 1950-1960

FIGURE 1. POPULATION AND RESIDENTIAL GROWTH IN GRAND RAPIDS METROPOLITAN AREA



DIRECTLY RELATED TO THIS TREND IS THE DEVELOPMENT OF THE RESIDENTIAL PATTERN OF THE NEGRO POPULATION OF GRAND RAPIDS. THE NEGRO POPULATION HAS CONCENTRATED WITHIN THE CENTRAL CITY AREA AND HAS NOT PARTICIPATED IN THE GENERAL MIGRATION TO THE SUBURBS. AS MCENTIRE STATES:

> NEGRO MIGRATION SINCE 1940 HAS BEEN DIRECTED OVERWHELMINGLY TOWARD THE CENTRAL CITIES OF METROPOLITAN AREAS, WHEREAS THE WHITE POPULATION HAS BEEN SHIFTING OUTWARD FROM THE CITIES INTO SURROUNDING SUBURBAN TERRITORY. THE RESULT IS A STEADILY INCREASING PROMINENCE OF NEGRO AND OTHER MINORITIES IN THE POPULATIONS OF THE LARGER CITIES.[5]

TO SUPPORT THE EXISTENCE OF THIS TREND IN THE GRAND RAPIDS AREA BOGUE'S WORK WITH ESTIMATING NET MIGRATION AND NATURAL INCREASE FOR STANDARD METROPOLITAN AREAS WILL BE EMPLOYED. HIS ESTIMATIONS FOR GRAND RAPIDS IS SUMMARIZED IN TABLE 5. THESE FIGURES INDICATE THE EXPECTED TREND BETWEEN 1940 AND 1950 WITH REGARD TO NET MIGRATION OF WHITES AND NON-WHITES. FOR THE CENTRAL CITY WHITES IN MOST AGE CATEGORIES SHOW AN OUT-MIGRATION WHILE NON-WHITES OF ALMOST ALL AGE CATEGORIES SHOW AN IN-MIGRATION FOR THE SAME PERIOD. IN CONTRAST, THE METROPOLITAN RING OF THE CITY REVEALS IN-MIGRATION OF WHITES WHILE NON-WHITES SHOW AN INSIGNIFICANT NUMBER OF MIGRANTS TO THE SUBURBAN FRINGE AREA. ALTHOUGH SUCH FIGURES FOR THE PERIOD BETWEEN 1950 AND 1960 ARE NOT AVAILABLE, IT IS ALMOST CERTAIN THAT THIS TREND WOULD BE EVEN MORE EXTREME IN THE SAME DIRECTION.

IN SUMMARY, WHAT THIS SECTION IS ATTEMPTING TO SHOW IS THE TREND FOUND IN MANY LARGE METROPOLITAN CENTERS OF SUBURBAN EXPANSION AND

---

5. MCENTIRE, DAVIS., RESIDENCE AND RACE. BERKELEY AND LOS ANGELES, CALIF. UNIVERSITY OF CALIFORNIA PRESS, 1960. P. 17.

TABLE V.

Age
All ages
0-9
10-14
15-19
20-24
25-29
30-34
35-39
40-44
45-49
50-54
55-59
60-64
65-69
70-74
75-84
85 & over

Source:

TABLE V. SUMMARY OF NET MIGRATION: GRAND RAPIDS STANDARD METROPOLITAN AREA, CENTRAL CITY, AND METROPOLITAN RING, BY AGE AND COLOR: 1940-50.

	SMA		CENTRAL CITY		METROPOLITAN RING	
AGE	WHITE	NON-WHITE	WHITE	NON-WHITE	WHITE	NON-WHITE
ALL AGES	6,330	3,689	-13,333	3,571	19,663	118
0-9	1,791	532	- 6,107	500	7,898	32
10-14	- 560	286	- 1,514	278	954	8
15-19	- 141	238	- 128	234	-13	4
20-24	707	448	701	443	6	5
25-29	1,305	545	- 594	531	1,899	14
30-34	1,412	465	- 1,385	464	2,797	1
35-39	30	300	- 1,682	299	1,712	1
40-44	94	271	- 952	259	1,046	12
45-49	- 5	227	- 799	211	794	16
50-54	392	140	- 364	134	756	6
55-59	416	84	- 360	78	776	6
60-64	324	64	- 168	55	547	9
65-69	254	31	104	28	150	3
70-74	182	38	16	40	166	- 2
75-84	146	22	- 36	20	182	2
85 & OVER	- 17	- 2	- 10	- 3	- 7	1

SOURCE: TABLE IV IN DONALD J. BOGUE, COMPONENTS OF POPULATION CHANGE, 1940-50: ESTIMATES OF NET MIGRATION AND NATURAL INCREASE FOR EACH STANDARD METROPOLITAN AREA AND STATE ECONOMIC AREA.

MIAMI, OHIO: MIAMI UNIVERSITY, 1957.

NEGRO CONCE

THE CASE OF

PATTERN OF

IT WILL BE

OF CONCENTR

EXTREME SEG

THE PATTERN

RACIA

GATION, MA

TO CLUSTER

OR RACE.

THE PATTER

THE QUESTI

DISPERSION

DUNCA

NEGRO RES

> IT M
> SAME
> CASE
> TION
> ON T
> DWEL
> MAIN
> OF N
> WOUL
> NON-
> TWEE
> CENT

6. DUNCA

NEGRO CONCENTRATION WITHIN THE CENTRAL CITY IS ALSO OCCURRING IN THE CASE OF GRAND RAPIDS. IN THE NEXT SECTION A DESCRIPTION OF THE PATTERN OF NEGRO RESIDENCE WITHIN THE CENTRAL CITY WILL BE PRESENTED. IT WILL BE SHOWN THAT NEGRO RESIDENCE NOT ONLY MANIFESTS A PATTERN OF CONCENTRATION WITHIN THE CENTRAL CITY AREA, BUT ALSO A PATTERN OF EXTREME SEGREGATION WITHIN A SPECIFIC AREA OF THE CENTRAL CITY.

THE PATTERN OF RACIAL SEGREGATION

RACIAL SEGREGATION, A SUBTYPE OF THE GENERAL PROCESS OF SEGREGATION, MAY BE CONSIDERED AS THE TENDENCY FOR INDIVIDUALS OR FAMILIES TO CLUSTER TOGETHER IN THEIR PLACES OF RESIDENCE ON THE BASIS OF COLOR OR RACE. THIS SECTION WILL ATTEMPT TO POINT OUT IN A GENERAL SENSE THE PATTERN OF NEGRO RESIDENCE IN CONTRAST WITH NON-NEGRO RESIDENCE. THE QUESTION IS, DO NEGROES SHOW A CLUSTERING OF RESIDENCE OR A DISPERSION OF RESIDENCE, I.E., A PATTERN OF SEGREGATION OR DISPERSION?

DUNCAN AND DUNCAN HAVE SET FORTH THREE POSSIBLE PATTERNS WHICH NEGRO RESIDENCE MAY FORM.

> IT MIGHT BE FOUND THAT NEGROES SECURED FOR THEIR OCCUPANCY THE SAME PROPORTION OF DWELLINGS IN EACH AREA OF THE CITY. IN THIS CASE THEIR RESIDENCES WOULD BE WIDELY DISPERSED AND THE DISTRIBUTIONS OF NEGRO AND NON-NEGRO RESIDENCES BY AREA WOULD CORRESPOND. ON THE OTHER HAND, IT MIGHT BE FOUND THAT NEGROES SECURED ALL DWELLINGS IN SOME AREAS OF THE CITY BUT NO DWELLINGS IN THE REMAINDER OF THE CITY. UNDER THESE CIRCUMSTANCES THE RESIDENCES OF NEGROES WOULD BE HIGHLY CONCENTRATED WITHIN THE CITY AND WOULD BE HIGHLY SEGREGATED WITH RESPECT TO THE RESIDENCES OF NON-NEGROES. INNUMERABLE DISTRIBUTIONAL PATTERNS, RANGING BETWEEN THE EXTREMES OF A DISPERSED EVEN DISTRIBUTION AND A CONCENTRATED COMPLETE SEGREGATION, MIGHT BE POSTULATED.[6]

---

6. DUNCAN AND DUNCAN, OP. CIT., P. 87.

THE RE

EVER, IS RA

OF THE NEGRO

ARE THE ONL

AND SOME SC

CITIES. TH

GRAND RAPI

THREE POIN

OF NEGRO

FIRST TWO

GRAND RAP

1959, HO

INFORMAT

SENTED

OF THIS

THE DAT

A PATTE

ANALYZ

RAPID

TOWAR

3, AN

7.

THE RESIDENTIAL SEGREGATION OF NEGROES IN AMERICAN CITIES, HOWEVER, IS RARELY ABSOLUTE, ACCORDING TO MCENTIRE[7] NOT ALL THE MEMBERS OF THE NEGRO POPULATION WILL LIVE IN ONE OR MORE AREAS IN WHICH THEY ARE THE ONLY RESIDENTS. OTHERS WILL BE FOUND LIVING IN MIXED AREAS, AND SOME SCATTERED THROUGH THE CITY. THIS PATTERN VARIES WITHIN ALL CITIES. THE SPATIAL DISTRIBUTION OF THE NEGRO RESIDENTIAL AREAS IN GRAND RAPIDS IS GRAPHICALLY REPRESENTED IN FIGURES 2,3, AND 4. THE THREE POINTS OF TIME WHICH WILL BE SELECTED FOR OBSERVING THE PATTERN OF NEGRO RESIDENCES WILL BE 1940, 1950, AND 1959. THE DATA FOR THE FIRST TWO POINTS IN TIME WERE OBTAINED FROM BLOCK STATISTICS FOR GRAND RAPIDS PUBLISHED BY THE U. S. BUREAU OF CENSUS. THE DATA FOR 1959, HOWEVER, WERE OBTAINED BY A FIELD SURVEY, DURING WHICH TIME INFORMATION FOR THE ANALYSIS OF AREAL DIFFERENTIATION TO BE PRESENTED LATER WAS ALSO OBTAINED. MORE WILL BE SAID OF THE METHODOLOGY OF THIS STUDY IN A LATER CHAPTER. FOR NOW IT MUST BE ASSUMED THAT THE DATA FOR ALL THREE PERIODS IS SOMEWHAT COMPARABLE AND CAN PRODUCE A PATTERN OF THE DEVELOPMENT OF SEGREGATION IN THE CASE CITY TO BE ANALYZED.

IN GENERAL THE TREND WITH REGARD TO RACIAL SEGREGATION IN GRAND RAPIDS HAS BEEN TOWARD AN INTENSIFICATION OF SEGREGATION RATHER THAN TOWARD A PATTERN OF DISPERSION THROUGHOUT THE CITY. THE FIGURES 2, 3, AND 4 REPRESENTING THE PATTERN OF NEGRO RESIDENCE AREAS FOR 1940,

---

7. MCENTIRE, OP. CIT., P. 32.

Figure 2. Areas of Negro Residence in Grand Rapids: 1940.

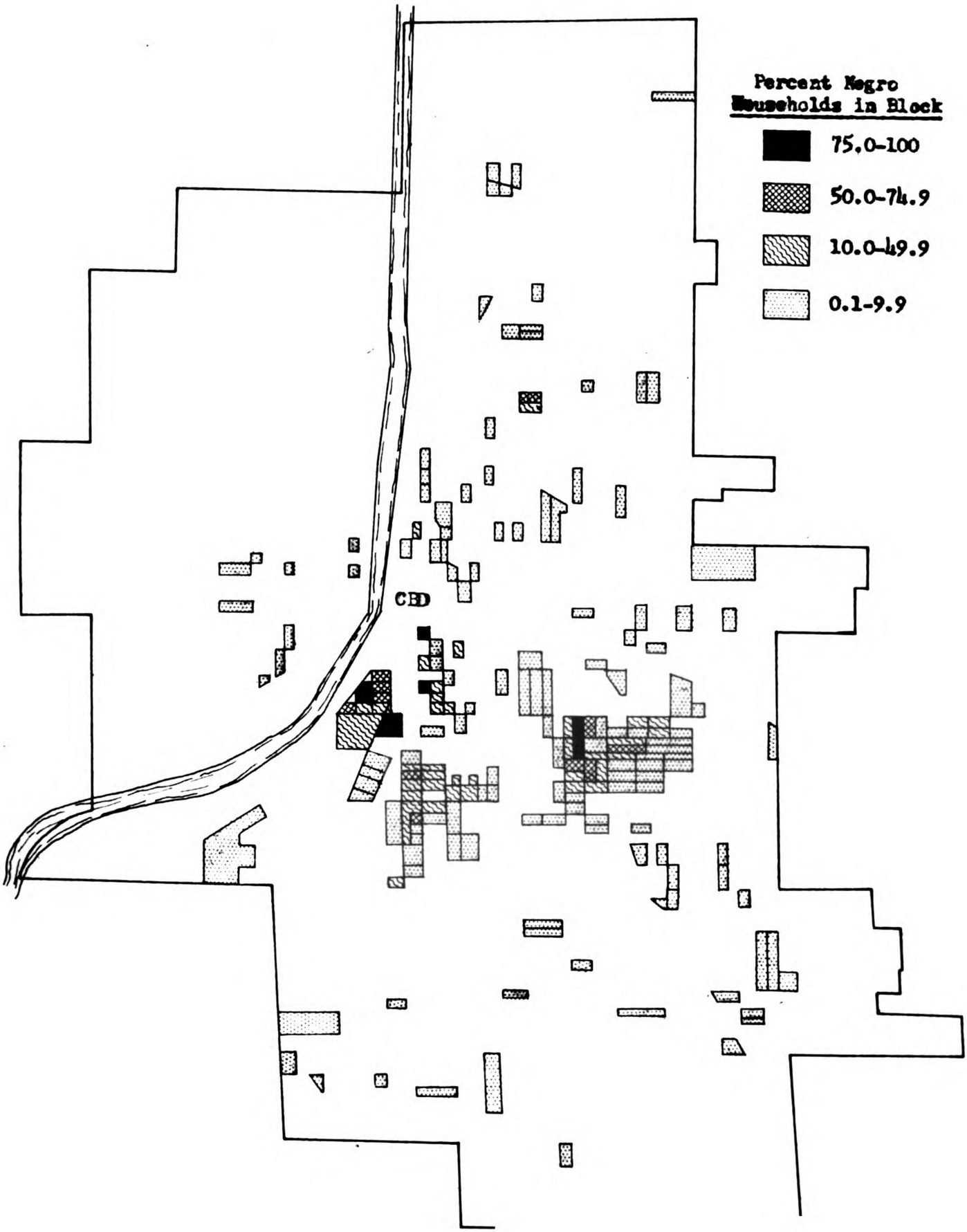
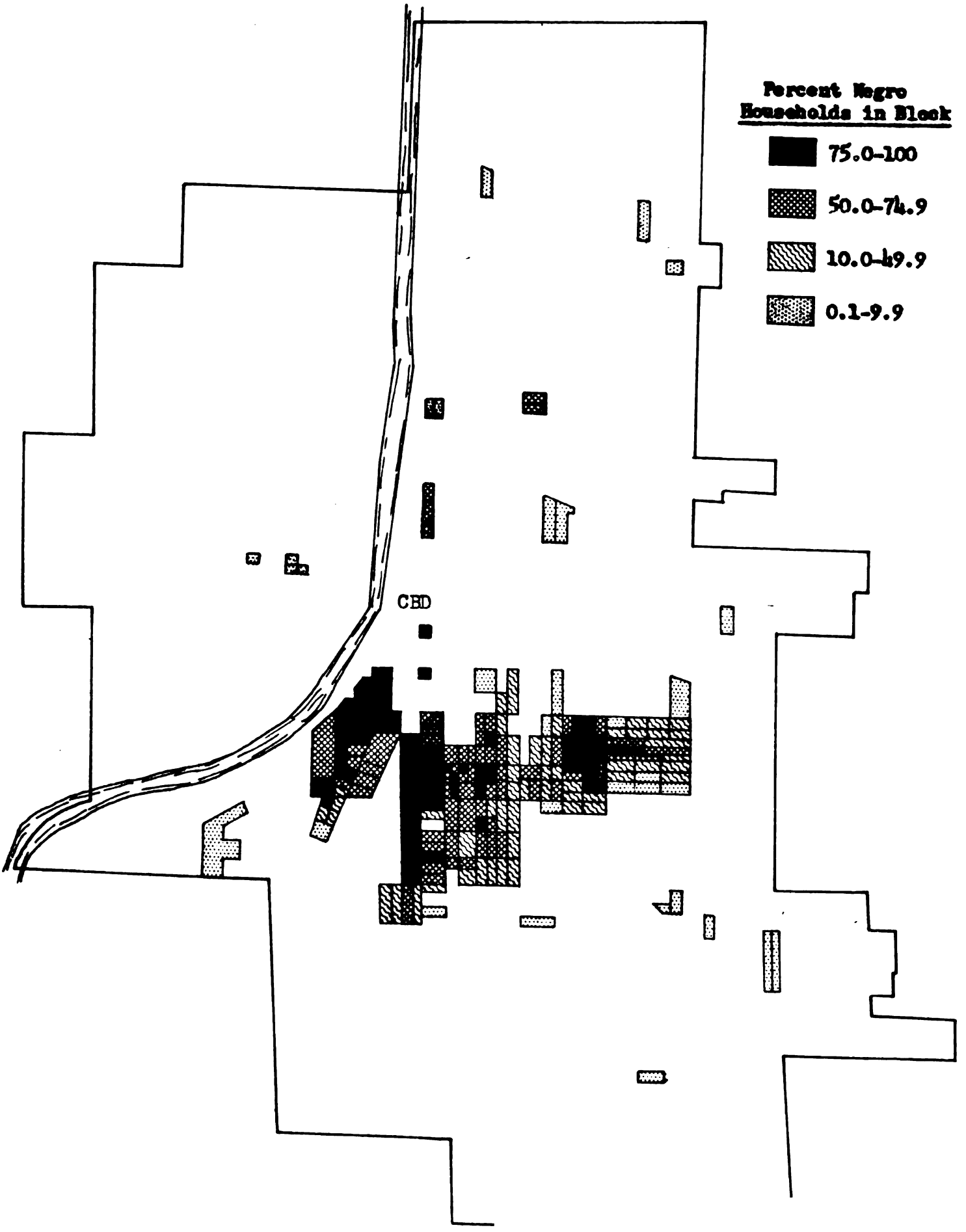


Figure 3. Areas of Negro Residence in Grand Rapids: 1950.

Figure 4. Areas of Negro Residence in Grand Rapids: 1959.



1950, AND 1959, RESPECTIVELY, INDICATE A DECREASE IN NUMBER OF BLOCKS OF DISPERSION WHICH CONSIST OF ONE OR TWO NON-WHITES LIVING IN A BLOCK OF A LARGE NUMBER OF WHITES. THESE BLOCKS GENERALLY FALL WITHIN THE 0.1 TO 9.9% DWELLING UNITS OCCUPIED BY NON-WHITE CATEGORY. ON THE OTHER HAND, WHILE THESE BLOCKS ARE DISAPPEARING THROUGHOUT THE WHOLE CITY, THE AREA COMPRISING THE PRIMARY NEGRO COMMUNITY SEEMS TO BE EXPANDING.

WITHIN THIS SAME TREND OF INCREASED SEGREGATION CAN BE INCLUDED THE DEVELOPMENT OF ONE SINGLE SEGREGATED NEGRO COMMUNITY FROM A FUSION OF A NUMBER OF SMALLER NEGRO CORE AREAS. IN 1940, AS PICTURED IN FIGURE 2, TWO DEFINITELY OUTLINED NEGRO DISTRICTS CAN BE DISTINGUISHED TOGETHER WITH A THIRD DISTRICT BEGINNING TO FORM BETWEEN THE OLDER ESTABLISHED DISTRICTS. THE CENTER OF THESE CORE AREAS TAKE THE FORM OF A GROUP OF BLOCKS MANIFESTING A HIGH PROPORTION OF NEGROES RESIDING WITHIN THEM. UPON OBSERVING FIGURES 3 AND 4 THESE DISTRICTS CAN BE SEEN TO FUSE TOGETHER ALMOST INTO A SINGLE "BLACK BELT" PATTERN. THE CORE AREAS OF THE THREE DISTRICTS ARE STILL DISTINGUISHABLE AS SEPARATE AREAS BUT IT PERHAPS WILL BE A MATTER OF TIME BEFORE THE THREE BECOME A SINGLE NEGRO CORE AREA.

THE TWO ELEMENTS OF A NEGRO SEGREGATED DISTRICT, THEREFORE, ARE ITS "CORE" AND ITS "FRINGE" OR "PERIPHERY." THE CORE AREA, AS MENTIONED ABOVE, IS USUALLY THE AREA OF EARLIEST SETTLEMENT AND IN WHICH CAN BE FOUND THE HIGHEST CONCENTRATION IN TERMS OF THE PROPORTION OF NEGROES

TO NON-NEGROES RESIDING IN THE AREA. IN THE FIGURES 2, 3, AND 4 THE CORE AREAS ARE QUITE PROMINENT WITH THEIR FRINGE OR PERIPHERY PROCEEDING OUTWARD FROM EACH DISTRICT CORE. THE FRINGE BLOCKS ARE IDENTIFIABLE FROM A LOW PROPORTION OF NEGROES TO NON-NEGROES RESIDING IN THE AREA. IT IS THE FRINGE AREAS WHICH WILL BE OF CONCERN IN THE SECTION DEALING WITH INVASION-SUCCESSION, FOR IT IS THE HIGHLY DENSE CORE AREAS THAT FORM THE STARTING POINT OF THE INVASION-SUCCESSION PROCESS. FROM THE HIGHLY POPULATED AREAS PROCEED "WAVES OF SUCCESSION" INTO THE BLOCKS SURROUNDING THE CORE AREAS.

AT THIS POINT PERHAPS IT IS APPROPRIATE TO SUGGEST A DISTINCTION BETWEEN INVASION-SUCCESSION AND SEGREGATION TO FACILITATE THE ANALYSIS OF THE TWO PROCESSES. SEGREGATION APPEARS TO BE THE TENDENCY TO EXCLUDE ALL OTHERS FROM AN AREA OF RESIDENCE BY INCREASING THE PROPORTION OF THE GROUP TO ITS HIGHEST PEAK POSSIBLE IN ALL AREAS ALIKE. THIS DOES NOT MEAN TO SUGGEST THAT THE PROCESS PROCEEDS ON A VOLUNTARY BASIS BUT RATHER THAT THIS IS MERELY THE PATTERN CHARACTERISTIC OF THE PROCESS. INVASION-SUCCESSION, HOWEVER, SEEMS TO BE THE PROCESS OF SEGREGATION REVERSED. IT APPEARS TO BE THE TENDENCY TO EXPAND THE AREA OF RESIDENCE INTO AREAS WITH A LOW PROPORTION OF THE GROUP IN RESIDENCE. THE TWO PROCESSES, IN THIS SENSE, WORK INTERDEPENDENTLY. WHILE INVASION-SUCCESSION EXPANDS THE AREA OF RESIDENCE FOR THE NEGRO, THE PROCESS OF SEGREGATION TENDS TO EXCLUDE NON-NEGRO RESIDENTS FROM THESE AREAS OF NEGRO RESIDENCE, THUS, INCREASING SEGREGATION AND AT THE SAME TIME EXPANDING THE NEGRO COMMUNITY.

AS M

GRAND RAP

ING THE B

THE DEGRE

SUPPORT T

IT CAN BE

LOW PROPO

THE FOLLO

BLOCKS WI

OCCUPIED

FIGURE WA

NEGRO RES

PIED BY N

ON T

BEING NEG

NIFICANTL

MUCH FROM

NEGRO RES

DOUBLED B

BY 15. T

SAME PERI

IN RESIDE

AMOUNTED

As mentioned above, therefore, from the pattern shown by Grand Rapids it appears that while the Negro community is extending the boundaries of the area of Negro residence, nevertheless, the degree of segregation seems also to increase. Figures to support this statement are as follows. First of all, in Table 6 it can be seen that from 1940 to 1959 the number of blocks with a low proportion of Negroes in residence was greater in 1940 than the following two years of 1950 and 1959. In 1940, 64.8% of the blocks with Negro residence revealed less than 10% of its total occupied dwelling units to be occupied by Negroes. In 1950 this figure was only 46.4% and in 1959 only 18.5% of the blocks with Negro residents showed from 0.1 to 9.9% of the dwelling units occupied by Negroes.

On the other hand, the blocks with 80 to 100% of the households being Negro increased from only 2.6% in 1940 to 25.0% in 1959. Significantly, the total blocks in which Negroes resided did not increase much from 1940 to 1959. In 1940 there were a total of 196 blocks with Negro residents. While the Negro population of the city more than doubled between 1940 and 1950, the blocks of Negro residence decreased by 15. The ratio of Negro population per block increased within the same period from 13.9 to 38.2. From 1950 to 1959 19 blocks with Negroes in residence were added to the total Negro blocks, but this actually amounted to only 4 over the original number of 196 in 1940. In the

TABLE VI.

Percentage of Negroes Residing in Block
80 to 100
50 to 79.9
20 to 49.9
10 to 19.9
.1 to 9.9
Total
Negro Po
Populat per B
Source

TABLE VI. BLOCKS OF NEGRO RESIDENCE BY PERCENTAGE OF NEGRO DWELLING UNITS: 1940-59.

Percentage of Negroes Residing in Block	1940		1950		1959	
	Number of Blocks	Per cent of Blocks	Number of Blocks	Per cent of Blocks	Number of Blocks	Per cent of Blocks
80 to 100	5	2.6	16	8.8	55	27.5
50 to 79.9	14	7.1	26	14.4	62	31.0
20 to 49.9	23	11.7	36	19.9	38	19.0
10 to 19.9	27	13.8	19	10.5	15	7.5
.1 to 9.9	127	64.8	84	46.4	30	15.0
Total	196	100.0	181	100.0	200	100.0
Negro Population	2,725		6,912		14,717 (1960)	
Population per Block	13.9		38.2		73.6	

Source: U. S. Bureau of Census and Field Survey

SAME PER

A RATIO

THE

INCREASE

TREND FO

TO DISAP

AREAS WE

THE PRES

WITH

THE SIZE,

REMARKS C

1959. TH

THE CITY

DIRECTION

OF THIS A

EXPANSION

WARD OR SO

THE LATTER

TAKEN. IN

EXPANDED I

8. THIS TE
OF THE
AREAS A
THE "MI
AREAS C

SAME PERIOD THE NEGRO POPULATION AGAIN MORE THAN DOUBLED SHOWING A RATIO OF 73.6 PERSONS PER BLOCK OF NEGRO RESIDENCE IN GRAND RAPIDS.

THE FACT THAT THE NUMBER OF BLOCKS OF NEGRO RESIDENCE DID NOT INCREASE TO A LARGE EXTENT FROM 1940 TO 1959, IS EXPLAINED BY THE TREND FOR BLOCKS WITH NEGRO RESIDENTS DISPERSED THROUGHOUT THE CITY TO DISAPPEAR AT THE SAME RATE THAT BLOCKS SURROUNDING THE NEGRO CORE AREAS WERE BEING INVADED. THIS TREND OPERATED UP TO 1959 TO GIVE THE PRESENT NEGRO COMMUNITY ALMOST A "BLACK BELT" APPEARANCE.

WITH REGARD TO PHYSICAL AND GEOGRAPHIC FACTORS WHICH INFLUENCE THE SIZE, SHAPE, AND LOCATION OF THE SEGREGATED NEGRO AREA, A FEW REMARKS CAN BE PROPOSED BASED UPON THE PATTERN FOR 1940, 1950, AND 1959. THE GRAND RIVER WHICH PASSES DIRECTLY THROUGH THE CENTER OF THE CITY HAS HAD A DEFINITE LIMITING EFFECT UPON THE LOCATION AND DIRECTION OF EXPANSION OF THE "WEST CORE AREA."[8] IMMEDIATELY NORTH OF THIS AREA ALSO IS THE CENTRAL BUSINESS DISTRICT OF THE CITY. ANY EXPANSION OF THIS CORE AREA, THEREFORE, WOULD HAVE TO PROCEED EASTWARD OR SOUTH ALONG GRANDVILLE AVENUE, A FAIRLY BUSY ARTERIAL STREET. THE LATTER IS PRECISELY THE PATTERN OF DEVELOPMENT THIS CORE AREA HAS TAKEN. IN A SENSE, THE WEST CORE AREA AND THE "MIDDLE CORE AREA" HAVE EXPANDED IN A PATTERN SIMILAR TO BURGESS' HYPOTHESIZED PATTERN BASED

---

8. THIS TERM IS USED IN THIS SECTION MERELY TO FACILITATE THE DESCRIPTION OF THE SEGREGATION PATTERN IN GRAND RAPIDS. THERE ARE THREE CORE AREAS ALTOGETHER, THE FIRST BEING THE "WEST CORE AREA," THE SECOND THE "MIDDLE CORE AREA" AND THE THIRD THE "EAST CORE AREA." THESE AREAS CAN EASILY BE LOCATED IN FIGURES 2, 3, AND 4.

ON HIS "C

THE CENTR

"TRANSITI

FROM THE

THE EXCEP

ALTHOUGH

CITY, IT

LITTLE EX

THIS RECE

THE MIDDL

ANOT

OF THE NE

FARES WHI

EXPANSION"

THE NORTHE

BOUNDARY F

ITS PATTER

THE EASTER

BARRIERS T

TOWARD THE

A FIN

CORE AREAS

AREA IS MA

on his "concentric zone" theory. Both core areas originated near the central business district in perhaps what could be termed the "transition zone." From these initial core areas they expanded out from the center of the city along main business arterial streets. The exception to Burgess' theory, perhaps, is the "East Core Area." Although its location appears to be farther from the center of the city, it developed separately from the other core areas showing little expansion until the period from 1950 to 1959. However, with this recent expansion the East Core Area has now been joined with the Middle Core Area.

Another geographic factor involved in the segregation pattern of the Negro community appears to be a few main streets or thoroughfares which function as physical boundaries rather than "avenues of expansion" such as described above. Wealthy Street, which runs along the northern boundary of the East Core Area, has remained a distinct boundary from 1940 to the present, as can be observed upon following its pattern from 1940 to 1959. In the same sense Fuller Avenue forms the eastern boundary of the East Core Area. Both seem to be limiting barriers to this core area and expansion has only occurred westward toward the Middle Core Area.

A final physical factor affecting the shape of the West and Middle Core Areas is the wedge shaped area found lying between them. This area is mainly made up of railroads yards with some industry also

LOCATE

CORE AR

IN

"BLACK

EXPANSI

THIS PA

FIGURES

GRAND RI

A HIGH R

NORTHERN

ESTING TO

BETWEEN T

BLOCKS OF

FOR A PER

HAVE BECON

ARY OF THE

ESTABLISHE

OF GRAND R

PERHAPS REM

SOUTHWARD

SOUTHERN PA

ALTHOU

THE INCREAS

IN THIS SEC

LOCATED IN THE AREA. THIS HAS LIMITED THE COMPLETE FUSION OF THE TWO CORE AREAS SO THAT AT PRESENT THE TWO CORE AREAS ARE STILL DISTINCT.

IN GENERAL THE EXPANSION OF THE CORE AREAS INTO AN ALMOST SINGLE "BLACK BELT" IS BECOMING COMPLETE AND THE ONLY DIRECTION OF FURTHER EXPANSION WILL BE SOUTHWARD FROM THIS HIGHLY SEGREGATED BLACK BELT. THIS PATTERN IS EVIDENT FROM THE PATTERNS PRESENTED PREVIOUSLY IN FIGURES 2, 3, AND 4. ON THE WEST THE NEGRO AREA IS LIMITED BY THE GRAND RIVER, ON THE NORTH BY THE CENTRAL BUSINESS DISTRICT, AND ALSO A HIGH RENT DISTRICT IMMEDIATELY NORTH OF WEALTHY STREET, WHICH IS THE NORTHERN BOUNDARY OF THE EAST CORE AREA MENTIONED ABOVE. IT IS INTERESTING TO NOTE THAT A WEDGE OF THIS HIGH RENT DISTRICT STILL EXISTS BETWEEN THE EAST AND MIDDLE CORE AREAS BUT TO THE PRESENT ONLY THREE BLOCKS OF THIS AREA STILL EXISTS BELOW WEALTHY STREET. THIS WEDGE FOR A PERIOD OF TIME KEPT THE TWO CORE AREAS SEPARATE BUT NOW THEY HAVE BECOME FUSED ALMOST INTO A SINGLE CORE AREA. ON THE EAST BOUNDARY OF THE NEGRO AREA LIES EAST GRAND RAPIDS, AN EXCLUSIVE, LONG-ESTABLISHED SUBURBAN COMMUNITY IMMEDIATELY ADJOINING THE CITY LIMITS OF GRAND RAPIDS. THE PATTERN OF SEGREGATION OF THE NEGRO AREA WILL PERHAPS REMAIN THE SAME AS DESCRIBED ABOVE, WHILE EXPANSION WILL OCCUR SOUTHWARD INTO THE MIDDLE CLASS RESIDENTIAL AREAS LOCATED IN THE SOUTHERN PART OF THE CITY.

ALTHOUGH EVIDENCE HAS ALREADY BEEN PRESENTED ABOVE CONCERNING THE INCREASING TREND OF SEGREGATION FOR GRAND RAPIDS, A FINAL POINT IN THIS SECTION WILL BE THE PRESENTATION OF ADDITIONAL EVIDENCE

OBTAINED

A SEGREGA

AMERICAN

RELATIVE

WHICH EXI

1940 AND

OF SEGREG

SELECTED

GRAND RAP

TO A VERY

THE CITIES

FROM A RAN

TO THE RAN

FLINT AND

INCREASE

VEALS A VE

AND 1950.

SHOWN FOR

BE AT AN EV

SOME CONCOM

ALTHOU

THE PHENOMEN

NEGRO IN CON

obtained from a study completed by Donald Cowgill. Cowgill developed a segregation index based on Block Statistics for a large number of American cities. By comparing the indices for selected cities a relative notion can be obtained as to the degree of segregation which exists in Grand Rapids. Indices were developed for both 1940 and 1950 so that some indication of the change of the degree of segregation can also be found. Table 7 shows that among six selected Michigan cities for which Cowgill had computed his index, Grand Rapids showed an increase in degree of non-white segregation to a very large extent only second to Saginaw. Furthermore, of all the cities for which an index was calculated Grand Rapids jumped from a rank of 91st with an index of segregation of .782 in 1940 to the rank of 15th with an index of .914 in 1950, second only to Flint and Pontiac. Thus, while not all these cities have shown an increase in the degree of non-white segregation, Grand Rapids reveals a very high increase for non-white segregation between 1940 and 1950. It might also be stated that on the basis of the pattern shown for 1959 in Figure 4 the 1960 index for Grand Rapids should be at an even higher degree than in 1950.

Some Concomitants of Negro Segregation

Although no causal relationship is suggested as existing between the phenomenon of racial segregation and the inferior status of the Negro in contrast with whites with regard to a number of characteristics,

TABLE VII.

City
Saginaw
Grand Rapid
Flint
Pontiac
Dearborn
Detroit
Composite Index (135 cities

FORM

Source: Don
in A
(Fee

TABLE VII. TRENDS IN RESIDENTIAL SEGREGATION OF NON-WHITES IN SIX SELECTED MICHIGAN CITIES: 1940-1950.

City	Segregation Score 1940	Rank 1940 (187 cities)	Segregation Score 1950	Rank 1950 (209 cities)	Change in Score 1940 to 1950	Change in Rank
Saginaw	.733	120	.912	17	+.179	+103
Grand Rapids	.782	91	.914	15	+.132	+ 76
Flint	.924	3	.954	4	+.030	- 1
Pontiac	.921	4	.919	11	-.002	- 7
Dearborn	.586	158	.500	195	-.086	- 37
Detroit	.861	28	.838	89	-.023	- 61
Composite Index (185 cities)	.830	--	.863	--	+.033	--

FORMULA FOR COWGILL'S SEGREGATION INDEX BASED ON BLOCK STATISTICS:

$$I = \frac{C - X}{C - B}$$

WHEN C = TOTAL NUMBER OF BLOCKS IN THE CITY OR TOTAL NUMBER OF NON-WHITE DWELLING UNITS, WHICHEVER IS SMALLER

B = NUMBER OF NON-WHITE DWELLING UNITS DIVIDED BY AVERAGE NUMBER OF DWELLING UNITS PER BLOCK IN BLOCKS CONTAINING NON-WHITES

X = NUMBER OF BLOCKS CONTAINING ANY NON-WHITE DWELLING UNITS

SOURCE: DONALD O. COWGILL., "TRENDS IN RESIDENTIAL SEGREGATION OF NON-WHITES IN AMERICAN CITIES, 1940-1950," AMERICAN SOCIOLOGICAL REVIEW. VOL. 21 (FEB., 1956) PP. 43-47.

NEVERTHELESS, THIS CONTRAST WILL BE PRESENTED IN THIS SECTION TO SERVE THE PURPOSE OF PROVIDING A DESCRIPTION OF THE NEGRO POPULATION OF GRAND RAPIDS. THESE FIGURES WILL FURTHER BE USEFUL IN THE CHAPTER TO FOLLOW DEALING WITH AREAL DIFFERENTIATION WITHIN THE NEGRO COMMUNITY. THE CHARACTERISTICS TO BE DEALT WITH IN THIS SECTION INCLUDE INCOME, OCCUPATION, INDUSTRY, AND HOUSING CHARACTERISTICS.

IN TABLE 8, THE MAJOR OCCUPATION TYPES IN WHICH NEGROES WERE OVERREPRESENTED IN COMPARISON TO THE WHITE POPULATION IN 1950 WERE PRIVATE HOUSEHOLD WORKERS, SERVICE WORKERS, AND LABORERS, THE THREE WHICH GENERALLY ARE CONCEDED TO BE THE LOWEST IN SOCIO-ECONOMIC STATUS. OF THE TOTAL OF EMPLOYED NEGROES, 59.2% WERE EMPLOYED IN ONE OF THESE THREE OCCUPATION TYPES WHILE ONLY 11.8% OF THE WHITES EMPLOYED WERE ENGAGED IN ONE OF THESE THREE OCCUPATIONS. THE LARGEST DISSIMILARITY BETWEEN NEGROES AND WHITES APPEARS TO BE WITHIN THE CATEGORY OF SERVICE WORKERS WHERE 32.3% OF NEGROES ARE EMPLOYED IN SUCH OCCUPATIONS AND ONLY 6.5% OF WHITES.

IN TABLE 9 THE GREATEST OVERREPRESENTATION IS EVIDENT BETWEEN NEGRO AND WHITE IN 1950 WITH REGARD TO PERSONAL SERVICE AMONG THE INDUSTRY CATEGORIES. THIS FOLLOWS FROM WHAT WAS INDICATED ABOVE WITH REGARD TO OCCUPATIONAL DIFFERENCES. THE LARGEST MAJOR INDUSTRY CATEGORY EMPLOYING NEGROES IS MANUFACTURING. IT WAS MENTIONED PREVIOUSLY THAT MANUFACTURING IS THE MOST IMPORTANT ECONOMIC FUNCTION OF GRAND RAPIDS AND THIS IN ITSELF HAS PERHAPS ATTRACTED MANY NEGROES TO THE CITY. IN CONTRAST 40.2% OF THE EMPLOYED WHITES ARE ALSO ENGAGED IN MANUFACTURING.

TABLE VIII. OCCUPATION OF EMPLOYED PERSONS BY RACE FOR GRAND RAPIDS STANDARD METROPOLITAN AREA: 1950.

Occupation	Negro		White	
	Number	Per cent	Number	Per cent
Professional	55	2.0	9,769	8.9
Farmers	3	0.1	2,925	2.7
Managers, Officials, and Proprietors	65	2.3	10,335	9.4
Clerical	84	3.0	14,709	13.4
Sales	33	1.2	10,168	9.2
Craftsmen, Foremen	188	6.7	18,600	16.9
Operatives	707	25.4	29,389	26.7
Private household	290	10.4	1,668	1.5
Service	899	32.3	7,137	6.5
Farm laborers	3	0.1	1,084	1.0
Laborers	461	16.5	4,138	3.8
Total	2,788	100.0	109,922	100.0

Source: U. S. Bureau of Census, 1950.

TABLE IX. CLASS OF WORKER OF EMPLOYED PERSONS IN INDUSTRY BY RACE FOR GRAND RAPIDS STANDARD METROPOLITAN AREA: 1950.

Industry	Negro		White	
	Number	Per cent	Number	Per cent
Agriculture, Forestry, and Fishing	7	0.2	4,235	3.9
Mining	19	0.7	222	0.2
Construction	127	4.5	5,832	5.3
Manufacturing	783	28.1	44,174	40.2
Transportation, Communication, Public Util.	252	9.0	7,884	7.2
Wholesale, Retail	426	15.3	23,164	21.1
Finance, Insurance, and Real Estate	41	1.5	3,879	3.5
Business & Repair Service	71	2.5	3,080	2.8
Personal Service	752	26.9	5,086	4.6
Entertainment & Recreation Service	69	2.5	954	0.9
Professional Service	214	7.7	8,669	7.9
Public Administration	30	1.1	2, 611	2.4
Total	2,791	100.0	109,790	100.0

Source: U. S. Bureau of Census, 1950

TABLE 10 REPRESENTS THE DIFFERENCE BETWEEN INCOMES FOR NEGROES AND WHITES IN 1950. NEGROES SHOW A TOTAL OF 85.6% WITH INCOMES BELOW $3,000 WHILE WHITES SHOW 64.1% BELOW THIS LEVEL OF INCOME. THE DISCREPANCY BETWEEN NEGROES AND WHITES IS MORE OBVIOUS WHEN MEDIAN INCOME IS CONSIDERED. MEDIAN INCOME FOR NEGROES IN 1950 WAS ONLY $1,528 WHILE WHITES SHOWED A MUCH HIGHER MEDIAN INCOME OF $2,330.

THE FINAL CHARACTERISTICS TO BE CONSIDERED IN THIS SECTION DEALS WITH THE HOUSING CHARACTERISTICS OF THE NEGRO AND WHITE POPULATIONS. IN TABLE 11 THE FIGURES INDICATE A TREND OF THE NEGRO POPULATION TO A GREATER NUMBER OF PERSONS PER OCCUPIED DWELLING UNIT. IN 1940 NEGROES SHOWED ONLY 3.4 PERSONS FOR EVERY OCCUPIED DWELLING UNIT, VERY SIMILAR TO THAT OF THE TOTAL POPULATION OF GRAND RAPIDS. HOWEVER, IN 1950, THE PERSONS PER OCCUPIED DWELLING UNIT OF THE TOTAL POPULATION DECREASED, BUT AT THE SAME TIME THE FIGURES FOR NEGORES INCREASED TO 4.2, AN INCREASE OF ALMOST ONE MORE PERSON FOR EACH DWELLING UNIT. THIS DISPARITY STILL EXISTS IN 1960 WITH WHITES SHOWING 3.2 PERSONS PER DWELLING UNIT AND NEGROES 4.0.

IN TABLE 12 HOUSING CHARACTERISTICS FOR NON-WHITE AND WHITE AREAS ARE SUMMARIZED TO SHOW THEIR CONTRAST FOR 1950. NON-WHITE AREAS ARE CHARACTERIZED BY 50 TO 100% OF THE OCCUPIED DWELLING UNITS BEING OCCUPIED BY NON-WHITES WHILE WHITE AREAS ARE ALL BLOCKS CONTAINING 100% OF THE DWELLING UNITS OCCUPIED BY WHITES. THE TABLE SHOWS THAT NEGROES LIVE IN AREAS WHICH REVEAL A HIGHER PER CENT OF THE DWELLING UNITS BUILT

TABL

Incom (do	
	I
1,000	
2,000-	
3,000-	
4,000-	
5,000-	
6,000-	
10,000	
Total	
Median	

Source:

TABLE X. INCOME IN 1949 OF PERSONS, BY RACE FOR GRAND RAPIDS URBAN PLACE: 1950. (20% SAMPLE)

INCOME IN 1949 (DOLLARS)	NEGRO		WHITE	
	NUMBER	PER CENT	NUMBER	PER CENT
1- 999	1,135	34.2	21,825	26.6
1,000-1,999	860	25.9	13,510	16.5
2,000-2,999	845	25.5	17,235	21.0
3,000-3,999	395	11.9	15,920	19.4
4,000-4,999	60	1.8	7,010	8.5
5,000-5,999	10	0.3	3,090	3.8
6,000-9,999	10	0.3	2,360	2.9
10,000 AND OVER	5	0.1	1,075	1.3
TOTAL	3,320	100.0	82,025	100.0
MEDIAN INCOME	$1,528		$2,330	

SOURCE: U. S. BUREAU OF CENSUS, 1950.

TABLE XI. POPULATION PER OCCUPIED DWELLING UNIT FOR TOTAL POPULATION AND NEGRO POPULATION, GRA
MICHIGAN: 1940-1960.

TABLE XI. POPULATION PER OCCUPIED DWELLING UNIT FOR TOTAL POPULATION AND NEGRO POPULATION, GRAND RAPIDS, MICHIGAN: 1940-1960.

	1940			1950			1960		
	Occupied Dwelling Units	Population	Population per Dwelling Units	Occupied Dwelling Units	Population	Population per Dwelling Units	Occupied Dwelling Units	Population	Population per Dwelling Units
Total Population	47,523	164,292	3.5	54,110	176,515	3.3	55,514	177,313	3.2
Negro Population	813	2,725	3.4	1,646	6,912	4.2	3,722	14,717	4.0

Source: U. S. Bureau of Census, Census of Population and Block Statistics

TAB

C-A

PER
STR
OR
(BA

PER
SUBS
(DI
FRI

PER
OVER
(UNI
PERS

PER
RENT

PER
OWNE

AVER
CONT

AVER
ONE-
STRU

A ARE
B ARE
C INC
UNI
IN
WH

TABLE XII. AGE, CONDITION, CROWDING, AVERAGE RENT, AVERAGE VALUE, AND TENURE FOR DWELLING UNITS IN NON-WHITE AND WHITE AREAS FOR GRAND RAPIDS, MICHIGAN: 1950.

CHARACTERISTIC	NON-WHITE AREAS[A]	WHITE AREAS[B]
PER CENT DWELLING UNITS IN STRUCTURES BUILT IN 1919 OR EARLIER (BASED ON 1940 BLOCK STATISTICS)	98.5 (N=921)	73.0[C] (N=33,097)
PER CENT DWELLING UNITS SUBSTANDARD (DILAPIDATED OR LACK PRIVATE BATH)	47.8 (N=1282)	11.0 (N=46,914)
PER CENT DWELLING UNITS OVERCROWDED (UNITS WITH 1.51 OR MORE PERSONS PER ROOM)	5.6 (N=1282)	1.1 (N=46,914)
PER CENT DWELLING UNITS RENTER OCCUPIED	53.8 (N=1282)	36.7 (N=46,914)
PER CENT DWELLING UNITS OWNER OCCUPIED	46.2 (N=1282)	63.3 (N=46,914)
AVERAGE MONTHLY CONTRACT RENT	$31.25	$36.11
AVERAGE VALUE OF ONE-DWELLING UNIT STRUCTURES	$5,375	$8,972

[A] AREAS WITH 50 - 100% DWELLING UNITS OCCUPIED BY NON-WHITE

[B] AREAS WITH 100% DWELLING UNITS OCCUPIED BY WHITE

[C] INCLUDES 100% WHITE AREAS WITH "MIXED" AREAS OF LESS THAN 50% DWELLING UNITS OCCUPIED BY NON-WHITE. IF "MIXED" AREAS COULD HAVE BEEN EXCLUDED AS IN THE OTHER FIGURES GIVEN ABOVE, THE DIFFERENCE BETWEEN NON-WHITE AND WHITE AREAS WOULD HAVE BEEN EVEN GREATER.

BEF

AND

HALI

THE

MONT

$5 L

WHEN

ING C

PRETE

WHAT

TO THI

FOR NO

MUCH G

IS VAL

STRUCT

I

FERIOR

QUITE E

HOWEVER

COMMUNI

LATION,

ASCERTAI

AS A WHO

BEFORE 1920, A HIGHER PROPORTION OF THE DWELLING UNITS SUBSTANDARD, AND A HIGHER PROPORTION OVERCROWDED. ALSO, NEGRO AREAS SHOW OVER HALF THE DWELLING UNITS BEING RENTER OCCUPIED WHILE WHITE AREAS SHOW THE MAJORITY OF THEIR DWELLING UNITS OCCUPIED BY OWNERS. IN TERMS OF MONTHLY RENT, RESIDENTS IN PREDOMINANTLY NEGRO AREAS PAY ONLY ABOUT $5 LESS THAN WHITES. THIS APPEARS TO BE A SMALL DIFFERENCE, BUT WHEN CONSIDERATION IS MADE CONCERNING THE INFERIORITY OF THEIR HOUSING CONDITIONS IN CONTRAST TO WHITES, THEN THIS FIGURE MAY BE INTERPRETED TO SIGNIFY THAT NON-WHITES ARE PAYING PROPORTIONATELY MORE FOR WHAT THEY ARE RECEIVING IN TERMS OF HOUSING QUALITY. THE SAME APPLIES TO THE COMPARISON FOR AVERAGE VALUE OF ONE-DWELLING-UNIT STRUCTURES FOR NON-WHITE AND WHITE AREAS, BUT IN THIS CASE THE DIFFERENCE IS MUCH GREATER. THE NON-WHITE'S AVERAGE ONE-DWELLING-UNIT STRUCTURE IS VALUED AT A MUCH LOWER AMOUNT THAN THE AVERAGE ONE-DWELLING-UNIT STRUCTURE IN WHITE AREAS.

IN SUMMARY, WHAT HAS BEEN POINTED OUT IN THIS SECTION IS THE INFERIOR STATUS OF NEGROES IN GRAND RAPIDS TO WHITES. THIS SEEMS TO BE QUITE EVIDENT FROM THE DATA OBTAINED. THIS WILL BE OF FURTHER UTILITY, HOWEVER, IN THE CONSIDERATION OF AREAL DIFFERENTIATION WITHIN THE NEGRO COMMUNITY. THE STATUS OF THE NEGRO POPULATION WITHIN THE TOTAL POPULATION, THEREFORE, IS NECESSARY BEFORE DIFFERENTIAL ASPECTS CAN BE ASCERTAINED SUCH AS SOCIO-ECONOMIC STATUS WITHIN THE NEGRO POPULATION AS A WHOLE.

THE

CESS

COMP

AS M

RACI

ACCO

THE

FOR

STAG

PATT

VARI

GATI

INVO

PRES

BE S

TEND

THEN

AT AN

PROCE

SINGL

THIS

FOLLO

THE PROCESS OF INVASION-SUCCESSION.

THE GENERAL CONSEQUENCES OF THE PROCESS OF RACIAL INVASION-SUCCESSION IS THE INCREASE OF AREA OF RESIDENCE IN WHICH THE PERSONS COMPRISING A RACIAL GROUP ARE FOUND. ACCORDING TO DUNCAN AND DUNCAN, AS MENTIONED ABOVE, RACIAL SUCCESSION INVOLVES THE REPLACING OF ONE RACIAL CATEGORY OF THE POPULATION BY ANOTHER AS RESIDENTS OF AN AREA. ACCORDING TO MOST OF THE DEFINITIONS OF SUCCESSION INVOLVING NEGROES, THE PATTERN OF SUCCESSION MANIFESTS VARYING PROPORTIONS OF NEGROES FOR EACH STAGE. IT IS BY THE USE OF PROPORTION AS AN INDEX THAT STAGES OF SUCCESSION CAN BE ARBITRARILY DEVISED. BY PLOTTING THE PATTERN OF NEGRO RESIDENCE FOR A SINGLE POINT IN TIME ACCORDING TO VARIOUS CATEGORIES OF NEGRO PROPORTIONS, A STATIC PATTERN OF SEGREGATION CAN BE OBTAINED. HOWEVER, THE INVASION-SUCCESSION PROCESS INVOLVES THE ELEMENT OF TIME AND, THEREFORE, CANNOT BE ADEQUATELY PRESENTED BY PLOTTING NEGRO AREAS AT ONE POINT IN TIME. IF IT CAN BE SHOWN THAT, ONCE BLOCKS OR AREAS ARE INVADED BY NEGROES, THEY TEND TO CONTINUE ALONG THE PROCESS OF SUCCESSION TO THE FINAL STAGE, THEN IT MAY BE ASSUMED THAT BLOCKS SHOWING A LOW PROPORTION OF NEGROES AT ANY SINGLE POINT OF TIME ARE IN THE EARLY STAGES OF THE SUCCESSION PROCESS. LIKEWISE, BLOCKS SHOWING A HIGH PROPORTION OF NEGROES AT A SINGLE POINT IN TIME SUGGEST THAT SUCCESSION IS NEAR THE FINAL STAGE. THIS ASSUMPTION CONCERNING THE DETERMINATION OF STAGE OF SUCCESSION FOLLOWS FROM A MODEL DEVISED BY DUNCAN AND DUNCAN PREVIOUSLY RECORDED

IN AN EARLIER POINT IN THIS THESIS.[9] THIS MODEL ASSUMES THAT THE NEGRO COMMUNITY GREW FROM EARLY SETTLED CORE AREAS. WITH THE BEGINNING OF IN-MIGRATION OF NEGROES MIGRANTS SETTLED IN THESE CORE AREAS CAUSING PRESSURE FOR SOME NEGRO RESIDENTS TO FIND RESIDENCE ELSEWHERE. THEIR MOVEMENT OUT OF THE CORE AREAS INVOLVED INVASION OF THE SURROUNDING AREAS. AS THE NEGRO IN-MIGRATION CONTINUED, THESE AREAS OF INVASION WOULD BECOME CONSOLIDATED AND BE TAKEN IN AS PART OF THE ORIGINAL CORE AREA. AGAIN ON THIS BASIS, CORE AREAS AT ANY PERIOD OF TIME WOULD BE THOSE BLOCKS WITH THE HIGHEST PROPORTION OF NEGRO RESIDENTS. AREAS OF INVASION WOULD BE THOSE BLOCKS FARTHEST FROM THE CORE AREAS WITH THE LOWEST PROPORTION OF NEGRO RESIDENTS. BETWEEN THESE TWO EXTREMES WOULD FALL MANY VARIATIONS OF PROPORTIONS OF NEGROES, EACH REVEALING A CERTAIN STAGE OF SUCCESSION DEPENDING UPON THE PROPORTION OF NEGROES IN RESIDENCE.

BY USING THIS SIMPLE MODEL, WITH REFERENCE TO FIGURES 2, 3, AND 4 IN WHICH THE SEGREGATION PATTERN WAS INITIALLY DESCRIBED, CERTAIN BLOCKS OR AREAS CAN BE DISTINGUISHED AS TO THEIR RESPECTIVE STAGE OF SUCCESSION. ALTHOUGH IT REMAINS DIFFICULT TO SPECIFY STAGES OF SUCCESSION, THE NEED FOR THE DEVISING OF SUCH TERMS IS APPARENT IN ORDER THAT A DISCUSSION OF THE SUCCESSION PATTERN FOR GRAND RAPIDS MAY BE MADE POSSIBLE. SUCH A PROCEDURE IS HIGHLY ARBITRARY BUT THE

---

9. SEE PAGES 45-6.

FOLLOW

SUCCES

ALTHO

ING A

THESE

AS A

STAGE

ANOTH

PROPO

INVAS

THE U

VOLVI

HAS

THE

WARD

PART

IN A

---

*CAT
ANA
OF

FOLLOWING ARE THE TERMS TO BE EMPLOYED IN CATEGORIZING STAGES OF SUCCESSION FOR THE NEGRO POPULATION OF GRAND RAPIDS:

STAGE DESIGNATION	PER CENT OF BLOCK POPULATION NEGRO
INVASION	0.1% TO 9.9% (0.1 TO 24.9)*
INFILTRATION	10.0% TO 49.9% (25.0 TO 49.9)*
CONSOLIDATION	50.0% TO 74.9%
CONCENTRATION	75.0% TO 100%

ALTHOUGH THIS SCHEME IS NOT INTENDED TO ADD TO THE CONFUSION BY SUPPLYING ANOTHER SET OF STAGES OF SUCCESSION TO THE ALREADY INNUMERABLE LIST, THESE STAGES ARE MERELY SUGGESTED TO AID THE DESCRIPTION OF SUCCESSION AS A PROCESS EXISTING IN THE NEGRO RESIDENCE AREAS OF GRAND RAPIDS. STAGES OF SUCCESSION ARE DIFFICULT TO DISTINGUISH DISTINCTLY FROM ONE ANOTHER. THERE ARE PERHAPS MORE FACTORS TO CONSIDER THAN MERELY THE PROPORTION OF NEGROES IN A BLOCK, HOWEVER, THE GENERAL PROCESS OF INVASION-SUCCESSION IS REMOVED FROM THE ABSTRACT TO THE CONCRETE BY THE USE OF SUCH A SCHEME.

A DISCUSSION OF THE PROCESS OF INVASION-SUCCESSION GENERALLY INVOLVES THE EXPANSION OF THE CORE AREAS WITHIN THE NEGRO COMMUNITY. IT HAS ALREADY BEEN SHOWN IN FIGURES 2, 3, AND 4 HOW THE THREE CORES OF THE NEGRO COMMUNITY IN GRAND RAPIDS HAVE DEVELOPED AND EXPANDED OUTWARD FROM THEIR RESPECTIVE CENTERS. WITHIN THIS SAME PATTERN AND PARTICULARLY IN 1940 AND 1950 A NUMBER OF INVASION AREAS WERE EVIDENT IN A SCATTERED FASHION THROUGHOUT THE CITY RATHER THAN BEING LOCATED

---

*CATEGORIES IN PARENTHESES ARE ACTUALLY FIGURES WHICH ARE USED IN THE ANALYSIS. THE STAGE OF "INVASION" NEEDED TO BE INCREASED IN NUMBER OF CASES TO ENABLE STATISTICAL TESTING.

ONLY IN THE FRINGE OF THE CORE AREAS. A DISTINCTION SHOULD BE MADE CONCERNING THIS PHENOMENON. A LOOK AT FIGURES 2, 3, AND 4 SHOWS TWO TYPES OF INVASION BLOCKS: THOSE CONTIGUOUS TO THE CORE AREAS AND THOSE NON-CONTIGUOUS TO THE CORE AREAS. THIS DISTINCTION IS SUGGESTED BY GIBBARD AS MENTIONED IN A PREVIOUS CHAPTER.[10] THE TREND FROM 1940 TO 1959, HOWEVER, IS TOWARD THE DECREASE IN BOTH NON-CONTIGUOUS INVASION BLOCKS AND CONTIGUOUS BLOCKS AS INDICATED BY TABLE 13. IN THIS TABLE IT IS INDICATED THAT AREAS OF CONCENTRATION AND CONSOLIDATION HAVE INCREASED IN NUMBER AND PROPORTION WHILE INVASION BLOCKS AS A WHOLE HAVE DECREASED TO A CONSIDERABLE EXTENT. IN THE SECTION DEALING WITH THE SEGREGATION PATTERN IT WAS POINTED OUT THAT THIS INDICATES AN INCREASED DEGREE OF SEGREGATION. THIS MAY ALSO SUGGEST THAT ONCE A BLOCK UNDERGOES INVASION THE MOVEMENT TOWARD COMPLETION OF THE SUCCESSION PROCESS IS RAPID, THUS, ALLOWING FOR ONLY A FEW BLOCKS OF INVASION TO BE EXISTENT AT A SINGLE POINT OF TIME. IT MAY ALSO BE SAID, ALTHOUGH IT CANNOT BE SHOWN CONCLUSIVELY, THAT THE COMMON MODE OF INVASION IS MORE TOWARD A CONTIGUOUS EXPANSION RATHER THAN IN A DISPERSED, NON-CONTIGUOUS PATTERN. AGAIN, OBSERVING THE PATTERN APPARENT IN FIGURES 2, 3, AND 4, IT CAN BE SEEN THAT THE NUMBER OF INVASION AREAS SCATTERED THROUGHOUT THE CITY ARE DECREASING. ALSO, MANY BLOCKS WHICH REVEAL THE CHARACTERISTICS OF INVASION IN 1959 HAVE BEEN ESTABLISHED NEGRO

---

10. SEE PAGE 31.

TABLE XIII. BLOCKS OF NEGRO RESIDENCE BY STAGE OF SUCCESSION: 1940, 1950, 1959.

Stage of Succession	Blocks of Negro Residence					
	1940		1950		1959	
	Number	Per cent	Number	Per cent	Number	Per cent
Concentration	7	3.6	22	12.2	59	29.5
Consolidation	12	6.1	20	11.0	58	29.0
Infiltration	50	25.5	55	30.4	53	26.5
Invasion	127	64.6	84	46.4	30	15.0
Contiguous	37	29.1	33	39.3	12	40.0
Non-contiguous	90	70.9	51	60.7	18	60.0
Total	196	100.0	181	100.0	200	100.0

RES

PRO

WIL

EST

SOM

AS

OF

PRO

HA

TH

IN

19

FAC

LAR

NEC

TOT

LOC

AT

DEC

SUC

THE

WHE

A D

RESIDENCE AREAS FOR MANY YEARS. THIS SUGGESTS THAT THE SUCCESSION PROCESS WILL NOT TAKE PLACE IN MANY OF THESE AREAS. THE TENDENCY WILL BE FOR SUCH AREAS TO BE ELIMINATED RATHER THAN ADDED TO THE ESTABLISHED CORE AREAS OR AS NEWLY ESTABLISHED CORE AREAS.

TO ILLUSTRATE THIS LAST POINT TABLE 14 INDICATES THAT THERE IS SOME DIFFERENCE BETWEEN WHAT STAGE OF SUCCESSION A BLOCK HAS ATTAINED AS TO WHETHER THAT BLOCK WILL CONTINUE TO INCREASE IN THE PROPORTION OF NEGROES RESIDING WITHIN IT. FOR BLOCKS WHICH INCREASED IN NEGRO PROPORTION FROM 1940 TO 1959 MANY WERE CHARACTERIZED IN 1940 BY HAVING 10.0% OR MORE NEGRO RESIDENTS. MORE APPARENT IS THE FACT THAT IN THOSE BLOCKS POSSESSING LESS THAN 10.0% OF NEGRO RESIDENTS IN 1940 THE MAJORITY DECREASED IN THE PROPORTION OF NEGROES BETWEEN 1940 AND 1959. A LOOK AT TABLE 15, HOWEVER, WHICH ADDS A THIRD FACTOR, SHOWS THAT THE LOCATION OF NEGRO RESIDENTS IN 1940 HAD A LARGE INFLUENCE UPON WHETHER SUCH BLOCKS INCREASED OR DECREASED IN NEGRO RESIDENTS BETWEEN 1940 AND 1959. AS CAN BE OBSERVED, OF THE TOTAL OF 196 BLOCKS OF NEGRO RESIDENTS IN 1940, 83 OF THE 86 BLOCKS LOCATED WITHIN THE BOUNDARIES OF THE NEGRO GHETTO AS OF 1959 INCREASED. AT THE SAME TIME, 101 OF THE 110 BLOCKS LOCATED OUTSIDE THE SAME AREA DECREASED BETWEEN 1940 AND 1959. THIS INDICATES THAT THE STAGE OF SUCCESSION HAD LITTLE TO DO WITH WHETHER A BLOCK WOULD CONTINUE ALONG THE PROCESS OF INVASION-SUCCESSION, BUT RATHER IT WAS DEPENDENT UPON WHETHER THE BLOCK WAS LOCATED NEAR THE NEGRO CORE AREAS RATHER THAN IN A DISPERSED FASHION THROUGHOUT THE CITY.

TAB

BLO
PER
NE
IN

10.

1

To

TA

BL

PE
N
IN

10

1

To

TABLE XIV. CHANGE IN PROPORTION OF NEGROES BETWEEN 1940 AND 1959 FOR BLOCKS BY PER CENT NEGRO IN 1940.

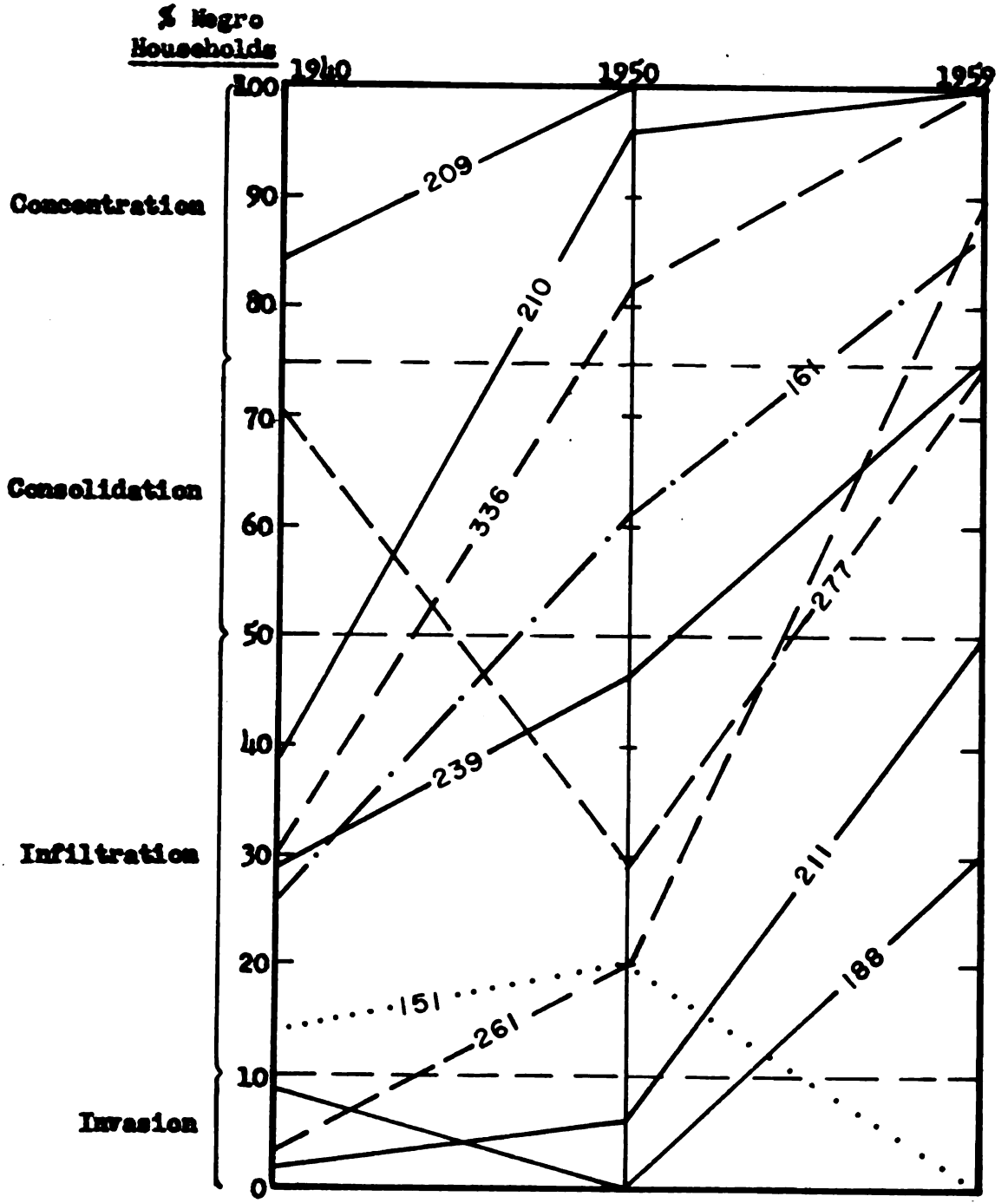
Blocks Per cent Negro in 1940	1940 to 1959 Change in Proportion Negro		Total
	Increase	Decrease	
10.0 or more	47	22	69
1 to 9.9	45	82	127
Total	92	104	196

TABLE XV. CHANGE IN PROPORTION NEGRO BETWEEN 1940 AND 1959 FOR BLOCKS LYING OUTSIDE AND INSIDE THE BOUNDARIES OF THE NEGRO GHETTO OF 1959.

Blocks by Per cent Negro in 1940	Change in Proportion Negro 1940 to 1959				Total
	Inside		Outside		
	Increase	Decrease	Increase	Decrease	
10.0 or more	44	0	3	22	69
1 to 9.9	39	3	6	79	127
Total	83	3	9	101	196

Before proceeding to another aspect of invasion-succession it must be emphasized that the rate of succession of various areas of Negro residence is not always uniform. The fact that any block is invaded does not determine that a block will continue smoothly from the initial to the final stage of the succession process. Figure 5 represents the succession pattern of a number of selected blocks possessing Negro residents in 1940. Blocks 209, 210, and 211 are located in the East Core Area. The first two show a high concentration of Negroes in 1959 and are in the final stages of succession as of 1959. Block 211 is a "fringe area" block and shows a pattern of advancing from an invaded area in 1940 to the stage of consolidation in 1959. Blocks 239 and 188 are also located in the East Core Area. Block 239 in 1940 was being infiltrated and by 1959 had reached a stage of concentration. Block 188 shows a pattern of invasion in 1940, but a disappearance of Negro residents in 1950. However, between 1950 and 1959 the block was again invaded and advanced to a stage of infiltration. Blocks 336, 277, and 261 are of the Middle Core Area and show difference in their succession patterns. Block 336 passed from a stage of infiltration in 1940 to a stage of concentration by 1959. Block 261 was invaded prior to 1940 and passed rapidly by 1959 into an area of high concentration. Block 277, however, was at a stage of consolidation in 1940 but decreased in Negro proportion between 1940 and 1950. But by 1959 it had regained the same

FIGURE 5. EXAMPLES OF INVASION-SUCCESSION FOR SELECTED BLOCKS OF NEGRO RESIDENCE, 1940-59.



——— Blocks within East Core Area
— — — Blocks within Middle Core Area
— · — Blocks within West Core Area
· · · · · Dispersed Blocks (noncontiguous to core areas)
-000- Block number from Block Statistics

LEVEL OF SUCCESSION AS IT HELD IN 1940. THE SINGLE BLOCK 161 LOCATED IN THE WEST CORE AREA SHOWS A GRADUAL ADVANCE FROM 1940 TO 1959, FROM INFILTRATION TO THE CONCENTRATION STAGE. FINALLY, BLOCK 151, A BLOCK NON-CONTIGUOUS TO A CORE AREA, APPEARS TO HAVE UNDERGONE INFILTRATION BETWEEN 1940 AND 1950 BUT BY 1959 ITS NEGRO POPULATION DISAPPEARED.

IN SUMMARY, SUCH EXAMPLES OF SUCCESSION ARE INSERTED AT THIS POINT TO ILLUSTRATE THE CONTRAST OF BLOCKS UNDERGOING SUCCESSION ACCORDING TO RATE AND DIRECTION OF CHANGE. THE STAGES OF SUCCESSION SUGGESTED ARE ARBITRARY AND HIGHLY HYPOTHETICAL. THE IMPLICATION THAT EVERY AREA FOLLOWS A SMOOTH PATTERN OF SUCCESSION FROM INVASION TO CONCENTRATION IS FALSE. NEVERTHELESS, SOME CLASSIFICATION IS NECESSARY BY WHICH TO EMPIRICALLY DESCRIBE AND ANALYZE THE PROCESS OF INVASION-SUCCESSION.

IN CONCLUSION, THIS CHAPTER HAS ATTEMPTED TO SET FORTH IN AN EMPIRICAL FRAMEWORK THE PATTERN RESULTANT FROM THE SEGREGATION AND INVASION-SUCCESSION PROCESSES OPERATIVE AMONG THE NEGRO RESIDENTS OF GRAND RAPIDS. THIS CASE STUDY TOGETHER WITH THE THEORETICALLY ORIENTED IMPLICATIONS POSED IN A PREVIOUS CHAPTER WILL PROVIDE THE BASIS FOR FORMULATING SPECIFIC HYPOTHESES TO BE TESTED WITHIN A LATER CHAPTER.

CHAPTER IV

RESEARCH PROBLEM DERIVED FROM THE ECOLOGICAL PROCESSES OF SEGREGATION AND INVASION-SUCCESSION

THE PROBLEM

WE HAVE PREVIOUSLY STRESSED THE THESIS THAT THE INTENSIVE ANALYSIS OF A NEGRO COMMUNITY OBSERVED AS ONE OF MANY "NATURAL AREAS" OF A LARGE URBAN SETTING MUST OF NECESSITY BREAK DOWN ITS INITIAL APPEARANCE OF HOMOGENEITY BY PLACING EMPHASIS UPON THE VARIATIONS AND CONTRASTS EXISTING WITHIN THE AREA RATHER THAN STRESSING ITS HOMOGENEOUS CHARACTERIZATIONS. BECAUSE OF THIS FACT AND THE FURTHER INTENTIONS OF THIS THESIS, IT MUST BE ASSUMED THAT THERE IS TO BE FOUND WITHIN THE NEGRO COMMUNITY A NUMBER OF VARIATIONS, ALL WHICH CAN BE DEPICTED EMPIRICALLY AND ECOLOGICALLY.

MUCH EVIDENCE CAN BE SUPPLIED TO SUGGEST THAT THERE EXISTS SUCH DIFFERENCES AND CONTRASTS WITHIN THE NEGRO SEGREGATED COMMUNITY. FOR EXAMPLE, DRAKE AND CAYTON IN BLACK METROPOLIS PROVIDE A THOROUGH DESCRIPTION OF THE SYSTEM OF SOCIAL CLASSES EXISTING AMONG THE NEGRO POPULATION OF CHICAGO.[1] ON THE BASIS OF A NUMBER OF INDICATORS, THREE DISTINCT SOCIAL CLASSES WERE DELINEATED: UPPER, MIDDLE, AND LOWER. FRAZIER ALSO DISTINGUISHES SUCH VARIATIONS AMONG NEGROES ON THE BASIS OF CERTAIN SOCIO-ECONOMIC FACTORS, AND LISTS

---

1. DRAKE, ST. CLAIR, AND HORACE CAYTON, BLACK METROPOLIS. HARCOURT, BRACE, 1945. PP. 521-715 FOR A THOROUGH DISCUSSION OF THE NEGRO CLASS SYSTEM WITHIN A NORTHERN CITY.

THE SAME THREE CLASSES AS DRAKE AND CAYTON IN DESCRIBING THE NEGRO CLASS STRUCTURE.[2] IN ADDITION, THE CHARACTERISTICS PRESENTED EARLIER IN THIS STUDY REGARDING THE NEGRO POPULATION OF GRAND RAPIDS ALSO REVEAL A WIDE VARIATION AMONG THE NEGROES WITHIN THE URBAN SETTING WHICH IS THE FOCUS OF THIS STUDY. THERE EXIST VARIATIONS IN OCCUPATION, INCOME, AND A NUMBER OF HOUSING CHARACTERISTICS, ALL SUGGESTING THE EXISTENCE OF VARIATIONS WITHIN THE NEGRO COMMUNITY.

THE REALITY OF THE EXISTENCE OF VARIATIONS WITHIN THE NEGRO COMMUNITY HAVING BEEN SUPPORTED, IT IS NECESSARY, THEREFORE, TO PROPOSE HOW THESE VARIATIONS ARE ECOLOGICALLY DISTRIBUTED WITHIN THE NEGRO COMMUNITY. COMPARABLE TO THE GROWTH OF NATURAL AREAS WITHIN A TOTAL URBAN SETTING, AREAL VARIATIONS ALSO APPEAR WITHIN THE PERIMETER OF THE TOTAL NEGRO COMMUNITY. THE GENERAL PROBLEM IN THIS THESIS, THEREFORE, IS TO DISCOVER THE ECOLOGICAL PROCESSES RESPONSIBLE FOR A PATTERN OF ECOLOGICAL VARIATION WITHIN THE NEGRO COMMUNITY AND, MORE SPECIFICALLY, THE SINGLE PROCESS MOST INFLUENTIAL IN CREATING THIS PATTERN.

IN THIS THESIS, TWO ECOLOGICAL PROCESSES ARE PROPOSED AS THOSE MOST INFLUENTIALLY OPERATIVE IN THE DEVELOPMENT OF ECOLOGICAL VARIATIONS WITHIN THE TOTAL NEGRO RESIDENTIAL AREA: INVASION-SUCCESSION AND AREAL DIFFERENTIATION. THE LATTER PROCESS IS QUITE SYNONYMOUS

---

2. FRAZIER, E. FRANKLIN, THE NEGRO IN THE UNITED STATES. NEW YORK: MACMILLAN, 1949. PP. 289-305.

WITH THE PROCESS OF SEGREGATION AS IT HAS BEEN DEFINED PREVIOUSLY IN THIS THESIS, I.E., THE CLUSTERING TOGETHER OF PLACES OF RESIDENCE ON THE BASIS OF SOME COMMONLY MANIFESTED CHARACTERISTICS. REGARDING THE FORMER, THE PROCESS OF INVASION-SUCCESSION, MUCH HAS ALREADY BEEN PRESENTED IN THE PREVIOUS CHAPTER. ON THIS BASIS, THEREFORE, IT IS NECESSARY AT THIS POINT TO CONSTRUCT DISTINGUISHING MODELS[4] REPRESENTATIVE OF THESE TWO PROCESSES IN ORDER THAT HYPOTHESES MAY BE FURTHER ABSTRACTED AND PROPOSED AS TO THE ECOLOGICAL PATTERN EXPECTED TO RESULT FROM THE FUNCTIONING OF EACH PROCESS.

A MODEL OF INVASION-SUCCESSION

THE MODEL TO BE PRESENTED AT THIS POINT WILL APPEAR TO BE A COLLECTION OF SCATTERED CONTRIBUTIONS, EACH BEING AN ATTEMPT TO ADD SOME UNDERSTANDING TO THE PROCESS OF INVASION-SUCCESSION. AN ATTEMPT WILL BE MADE TO DRAW THESE CONTRIBUTIONS INTO A COMPACT, MEANINGFUL SYSTEM. DUNCAN AND DUNCAN HAVE CONTRIBUTED THE MOST COMPLETE MODEL TO BE FOUND AND IT HAS BEEN RECORDED VERBATIM IN CHAPTER II.[3] THEY ASSUME THAT NEGRO SETTLEMENTS BEGIN IN A "CORE" PATTERN AND, WITH THE ADDITION OF

---

3. SEE CHAPTER II, PAGES 45-6.

4. THE MODELS WHICH ARE TO FOLLOW ARE NOT TO BE EQUATED WITH THE MORE SOPHISTICATED AND ALL-INCLUSIVE, ALL EXPLAINING CONNOTATION OF THE TERM AS IT HAS COME TO REPRESENT IN MUCH OF CONTEMPORARY SOCIOLOGICAL LITERATURE. THE MODELS TO BE CONSTRUCTED IN THIS STUDY ARE TO BE CONSIDERED MORE ACCURATELY AS "THEORETICAL FRAMEWORKS." THESE MODELS ARE MERELY THEORETICAL TECHNIQUES BY WHICH TO TEST THE EMPIRICAL FINDINGS OF THIS STUDY WITH THE THEORETICAL PROPOSITIONS FOUND IN THE LITERATURE CONCERNING THE TWO ECOLOGICAL PROCESSES OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION. THUS, THESE "FRAMEWORKS" MERELY PERMIT THE CLARIFICATION AND SIMPLIFICATION OF THE THEORETICAL ASPECTS OF THIS STUDY TO FACILITATE RELATING THEM TO THE EMPIRICAL LEVEL.

LARGE-SCALE NEGRO IN-MIGRATION, THE CORE AREA PROCEEDS TO EXPAND AND CONSOLIDATE, WITH A CORRESPONDING ELIMINATION OF WHITE RESIDENTS FROM NEGRO AREAS OF INVASION. WITH A RESULTING INCREASED DENSITY WITHIN THE "CORE" AREA, PRESSURE IS FELT BY SOME OF THE RESIDENTS OF THE "CORE" TO FIND RESIDENCES ELSEWHERE. AS A RESULT, MOVEMENT OUT OF THE "CORE" AREA TAKES THE FORM OF "INVASION" OF OTHER AREAS OCCUPIED BY WHITES. THIS PATTERN CONTINUES WITH NEW INVASION AREAS APPEARING AND PREVIOUSLY INVADED AREAS BECOMING CONSOLIDATED AND CONCENTRATED NEGRO AREAS. THE IN-MIGRANTS, HOWEVER, WOULD CONTINUE TO MAKE THE OLD "CORE" THEIR "PORT OF ENTRY" WHILE THE OLDER NEGRO RESIDENTS OF THE CITY WOULD BE MORE PREDOMINANT IN THE NEWLY INVADED AREAS. IT IS ASSUMED THAT THE OLDER RESIDENTS WOULD BE MORE "ASSIMILATED" THAN RECENT ARRIVALS AND, THEREFORE, WOULD MANIFEST HIGHER LEVELS OF SOCIO-ECONOMIC STATUS AMONG THE NEGRO POPULATION.

MOVING NOW TO OTHER CONTRIBUTIONS TO A MODEL OF INVASION-SUCCESSION, GIST AND HALBERT SUGGEST THAT THERE IS A STRONG ASSOCIATION BETWEEN INVASION AND VERTICAL MOBILITY. GIBBARD STATES THAT THE INITIAL INVADERS FROM A MINORITY GROUP ARE OFTEN THE MOST PROSPEROUS ECONOMICALLY. THE TENDENCY FOR THOSE OF HIGHER SOCIAL POSITION TO GET THEMSELVES APART FROM OTHERS OF THEIR MINORITY---I.E., TO GIVE SPATIAL EXPRESSION TO THEIR STATUS---IS ONE OF THE PRIME REASONS FOR RESIDENTIAL INVASIONS.[5] SAYS GIBBARD, "AN INVASION MAY GIVE THE PARTICIPANTS A CHANCE TO IDENTIFY

---

5. GIBBARD, HAROLD A., "THE STATUS FACTOR IN RESIDENTIAL SUCCESSION," AMERICAN JOURNAL OF SOCIOLOGY. VOL. 46, (MAY, 1941) P. 838.

THEMSELVES WITH A RESIDENTIAL AREA WHICH OTHERS OF THEIR MINORITY CANNOT AT THE TIME ENTER. SUCH INVASIONS ARE OFTEN MORE CLOSELY CONNECTED WITH THE SOCIAL POSITION OF THE FIRST INVADERS AMONG THEIR OWN PEOPLES THAN WITH ANY REAL HOPE OF BEING IDENTIFIED WITH THE OLD-ESTABLISHED RESIDENTS IN THE AREAS INVADED."[6] SINCE THE STATUS LEVEL OF SUCH AREAS OF INVASION STAND RELATIVELY HIGH IN THE EYES OF THE MINORITY GROUP, THOSE EAGER TO SHARE THE STATUS OF THE INVADERS WILL TRY TO FOLLOW. THUS, THE RELATIVE PRESTIGE OF THE FIRST INVADERS PROVIDES THE IMPETUS FOR THE CONTINUATION OF THE INVASION-SUCCESSION PROCESS.

THE CONSEQUENT PATTERN OF VARIATION MAY BE DESCRIBED AS FOLLOWS: A COMPARISON OF NEGRO RESIDENTIAL AREAS CATEGORIZED BY "STAGE OF SUCCESSION" SHOULD, THUS, REVEAL A GRADIENT PATTERN OF A NUMBER OF CHARACTERISTICS. FOR EXAMPLE, WITH RESPECT TO HOUSING CONDITIONS THE AREAS OF "CONCENTRATION" SHOULD SHOW HIGH INDEXES, E.G., A HIGH PROPORTION OF DILAPIDATED STRUCTURES. SIMILARLY "CONSOLIDATION" AND "INFILTRATION" AREAS SHOULD SHOW INTERMEDIATE VALUES, WHILE AREAS OF "INVASION" SHOULD INDICATE LOW INDEXES. WITH RESPECT TO SOCIO-ECONOMIC CHARACTERISTICS, HOWEVER, THE GRADIENT PATTERN SHOULD FLOW IN THE OPPOSITE DIRECTION. THUS, "CONCENTRATION" AREAS SHOULD REVEAL LOW VALUES, SUCH AS LOW RENTS OR HOUSE VALUES, AREAS OF "CONSOLIDATION" AND "INFILTRATION" INTERMEDIATE VALUES, AND "INVASION" AREAS HIGH VALUES.

---

6. IBID., P. 839.

OTHER CHARACTERISTICS, SUCH AS FAMILY CHARACTERISTICS SHOULD ALSO MANIFEST A SIMILAR GRADIENT PATTERN BY STAGE OF SUCCESSION.

THE ABOVE PATTERN DEALS ONLY WITH DIFFERENCES AMONG THE MEMBERS OF THE TOTAL NEGRO COMMUNITY. A FINAL BUT SIGNIFICANT FACTOR TO CONSIDER IS THE COMPARISON OF CHARACTERISTICS MANIFESTED BY INVADING NEGROES WITH THOSE OF THE WHITE RESIDENTS BEING REPLACED. ON THE BASIS OF AN IMPUTED BUT ALSO FACTUAL INFERIORITY OF THE NEGRO POPULATION TO WHITES IN REGARD TO ALL ASPECTS OF SOCIO-ECONOMIC STATUS, IT MAY BE IMPLIED THAT AN AREA UNDERGOING RACIAL SUCCESSION SHOULD REVEAL A DECLINE IN THE OVER-ALL SOCIO-ECONOMIC STATUS LEVEL OF ITS RESIDENTS. FURTHERMORE, THE RECOGNITION OF "RESISTANCE" BY THE OLD-ESTABLISHED RESIDENTS TO AN INVASION AS A TRADITIONAL COMPONENT OF THE INVASION-SUCCESSION PROCESS SUGGESTS THAT THERE GENERALLY EXISTS A VITAL DIFFERENCE BETWEEN THE INVADERS AND THE INVADED. GIBBARD STATES THAT "IN A RESIDENTIAL INVASION TWO SETS OF PEOPLE ARE BROUGHT TOGETHER; USUALLY THERE IS A STATUS DIFFERENCE BETWEEN THEM. A RESIDENTIAL SUCCESSION MAY BE SAID TO HAVE OCCURRED IF THE POPULATION WHICH ENTERS AND ESTABLISHES ITSELF IN THE AREA DIFFERS IN CERTAIN RESPECTS FROM THE ONE WHICH IT SUPPLANTS. THE DIFFERENCE BETWEEN THE TWO MAY BE ECONOMIC OR CULTURAL OR RACIAL."[7] DISTINCT CONTRASTS BETWEEN THE TWO POPULATIONS, THEREFORE, ENCOURAGE THE ESTABLISHED RESIDENTS TO RESIST THE ENTRANCE INTO THEIR NEIGHBORHOOD OF THOSE WHO WOULD GIVE THE AREA A LESS DESIRABLE CHARACTER.

---

7. IBID., P. 836.

In summary, therefore, this model suggests three distinguishable aspects of the pattern of ecological variations resulting from the invasion-succession process. First, there should appear a gradient pattern of characterizing factors, such as housing conditions and socio-economic status indicators, according to stage of succession. Second, those Negroes who invade a white area, although manifesting a high socio-economic status within the total Negro community, will show lower values of indicators of socio-economic status than those white residents whom they displace. Finally, according to the same model, Negroes residing in areas characterized by the same stage of succession should show similar values of the indicators mentioned. In other words, there should appear strong resemblances between Negroes residing in areas at the same stage of the invasion-succession process.

A Model of Areal Differentiation

Areal differentiation implies a process similar to the development of natural areas within an urban setting. In other words, areas tend to take on characteristics which in turn give a homogeneous appearance to the area as well as creating a distinct contrast between such homogeneous areas. In this thesis it is assumed that this process can also be found operating within the Negro residential areas and it is suggested that distinct areas can be depicted within the Negro community on the basis of like and different areal characteristics similar to delineating the natural areas within the whole urban community. It is asserted, furthermore, that such areas will continue to manifest the

SAME CHARACTERISTICS DESPITE A CONSTANT MOBILITY OF ITS RESIDENT POPULATION INTO AND OUT OF THE AREA. THUS, THE "STABILITY" OF AREA CHARACTERISTICS IS UNDERSCORED IN THIS MODEL. THIS FACTOR ALSO UNDERLINES A MAJOR DIFFERENCE BETWEEN THE MODEL OF INVASION-SUCCESSION AND THE MODEL OF AREAL DIFFERENTIATION. INVASION-SUCCESSION IMPLIES A CHANGE IN AREA CHARACTERISTICS CORRESPONDING TO CHANGES IN THE STAGE OF SUCCESSION FOR ANY AREA. ON THE OTHER HAND, AREAL DIFFERENTIATION SUGGESTS THERE IS A "SELECTIVE" PROCESS RESPONSIBLE FOR THE "STABILITY" OF AREAL CHARACTERISTICS FOR ANY AREA PASSING FROM ONE STAGE OF SUCCESSION TO ANOTHER. DUNCAN AND DUNCAN LIST TWO MAJOR REASONS FOR EXPECTING TO FIND SOME DEGREE OF STABILITY DESPITE THE TURNOVER OF POPULATION EVEN WHEN THIS INVOLVES A CHANGE IN RACIAL COMPOSITION.[8] THE FIRST IS A "SITUATIONAL" FACTOR. EACH LOCAL AREA OF A CITY HAS A FUNCTIONAL POSITION IN THE ORGANIZATION OF THE CITY AS A WHOLE. THE SECOND THEY CALL THE "SITE" FACTOR. ONCE AN AREA HAS BEEN BUILT UP AND ESTABLISHED, THERE EXISTS A CONSIDERABLE INERTIA TO RETAIN THE SAME PATTERN OF LAND USE BECAUSE MOST STRUCTURES HAVE A UTILITY LIFE OF A HUMAN GENERATION OR MORE. THIS SUGGESTS THAT AN APARTMENT-HOUSE DISTRICT HAS A TENDENCY TO REMAIN SUCH FOR MANY YEARS.

IN APPLYING THIS PHENOMENON OF "STABILITY" TO THE NEGRO COMMUNITY, WHAT IS SPECIFICALLY RELEVANT IS THE SPATIAL PATTERN OF NEGRO RESIDENTIAL AREAS. GIST AND HALBERT STATE THAT THE PATTERN OF SEGREGATION IN

---

8. DUNCAN, O. D., AND DUNCAN, BEVERLY, THE NEGRO POPULATION OF CHICAGO: A STUDY OF RESIDENTIAL SUCCESSION. CHICAGO: UNIVERSITY OF CHICAGO PRESS, 1957. PP. 133-4.

MOST LARGE AMERICAN CITIES IS USUALLY NOT A SINGLE NEGRO DISTRICT BUT SEVERAL AREAS VARYING IN SIZE. FURTHERMORE, EACH OF THESE AREAS REVEAL A UNIQUE HISTORICAL PAST AND EACH IS DISTINCT IN ITS SOCIAL AND OCCUPATIONAL CHARACTERISTICS AS WELL AS IN ITS RELATIONSHIPS TO THE ADJACENT DISTRICTS AND TO THE WHOLE URBAN COMMUNITY.[9] THIS SUGGESTS, THEREFORE, THAT WITH THE APPEARANCE AND DEVELOPMENT OF MORE THAN ONE CORE AREA OF NEGRO RESIDENCE, AREAL DIFFERENTIATION EVEN WITHIN THE NEGRO COMMUNITY MAY BE OPERATIVE. IF THERE APPEARS MORE THAN ONE CORE AREA OF NEGRO RESIDENCE SIMILAR TO WHAT WAS FOUND IN THE CASE STUDY OF GRAND RAPIDS, EACH AREA MAY MANIFEST ITS OWN AREAL CHARACTERISTICS, E.G., ONE CORE AREA MAY EXIST IN THE EYES OF THE NEGRO POPULATION AS A HIGH STATUS AREA, ANOTHER OF MIDDLE STATUS, AND ANOTHER OF LOW STATUS. IN ADDITION, THERE MAY ALSO BE DISTINGUISHABLE RESIDENTIAL AREAS OR DISTRICTS WITHIN THE LARGER NEGRO COMMUNITY WHICH REVEAL CONTRASTING CHARACTERISTICS BUT DO NOT OF THEMSELVES CONSTITUTE A WHOLE CORE AREA.

STABILITY OF AREAL CHARACTERISTICS, THEREFORE, EMPHASIZES THE FACT THAT, DESPITE THE OPERATION OF INVASION-SUCCESSION, AN AREA WILL CONTINUE TO REVEAL A STATUS RELATIVELY SIMILAR TO WHAT IT HAD ALWAYS MANIFESTED SOMETIME BEFORE, RELATIVE TO AREAS COMPRISING THE TOTAL NEGRO COMMUNITY. THIS SUGGESTS, FURTHERMORE, THAT, ALTHOUGH AREAS MAY FOLLOW A PATTERN OF INVASION-SUCCESSION, NEVERTHELESS EACH AREA

---

9. GIST, NOEL P., AND HALBERT, L. A., URBAN SOCIETY. NEW YORK: THOMAS Y. CROWELL, 1956. P. 181.

REMAINS SELECTIVE OF THE RESIDENTS WHICH EVENTUALLY SETTLE THERE. THUS, AREAL DIFFERENTIATION EXPLAINS THE ECOLOGICAL VARIATION PATTERN WITHIN A NEGRO COMMUNITY WITHOUT REGARD FOR THE INVASION-SUCCESSION PROCESS. THE SIGNIFICANT DIFFERENCE BETWEEN THIS MODEL OF AREAL DIFFERENTIATION AND THE MODEL OF INVASION-SUCCESSION, THEREFORE, IS THE LOCATION OF RESIDENTIAL AREAS OF HOMOGENEITY WITHIN THE NEGRO COMMUNITY. IN THE MODEL OF INVASION-SUCCESSION, THOSE AREAS OF INVASION ARE THE MORE OR LESS HIGH STATUS AREAS OF THE NEGRO COMMUNITY WHILE AREAS OF CONCENTRATION REVEAL A LOW STATUS LEVEL. IN THE AREAL DIFFERENTIATION MODEL, HIGH STATUS AND LOW STATUS AREAS BOTH MAY CONTAIN BLOCKS OF ALL STAGES OF SUCCESSION RANGING FROM "INVASION" TO "CONCENTRATION."

A FINAL CONSIDERATION FOR THIS MODEL OF AREAL DIFFERENTIATION, HOWEVER, IS THE COMPARISON OF THE INVADING NEGRO RESIDENTS OF AN AREA WITH THOSE WHITES WHOM THEY REPLACE. WHAT SORT OF PATTERN DOES THIS MODEL CREATE IN CONTRAST TO THE PATTERN RESULTING FROM INVASION-SUCCESSION? ASSUMING THAT AREA CHARACTERISTICS REMAIN STABLE REGARDLESS OF CHANGE IN RACIAL COMPOSITION, IT MAY BE STATED THAT THE INVADERS WILL RESEMBLE THOSE RESIDENTS WHOM THEY REPLACE RATHER THAN MANIFESTING A DIFFERENCE IN STATUS. IF THIS MODEL HOLDS TRUE, THEREFORE, THE NEGRO INVADERS WILL RESEMBLE ON THE BASIS OF MANY CHARACTERISTICS, SUCH AS HOUSING CONDITIONS AND SOCIO-ECONOMIC STATUS, THOSE WHITES DISPLACED FROM AREAS CONTIGUOUS TO THE RESPECTIVE NEGRO RESIDENTIAL AREA.

IN SUMMARY, THEREFORE, THREE SIGNIFICANT STATEMENTS MAY BE ASSERTED CONCERNING THE ECOLOGICAL PATTERN RESULTING FROM THE ABOVE MODEL. FIRST, THERE SHOULD EXIST A GRADIENT PATTERN OF AREA CHARACTERISTICS, SUCH AS HOUSING CONDITIONS AND SOCIO-ECONOMIC STATUS, ACCORDING TO DELINEATED RESIDENTIAL AREAS LYING WITHIN THE TOTAL NEGRO COMMUNITY IRRESPECTIVE OF STAGE OF SUCCESSION OF THE AREAS. THIS IMPLIES, THEREFORE, THAT CERTAIN AREAS MAY BE CATEGORIZED AS HIGH STATUS AREAS REVEALING HIGH VALUES FOR THEIR AREAL CHARACTERISTICS, OTHERS AS LOW STATUS AREAS WITH LOW VALUES, AND OTHER AREAS FALLING BETWEEN THESE TWO EXTREMES WITH INTERMEDIATE VALUES. FURTHERMORE, ON THE BASIS OF THE STABILITY OF AREAL CHARACTERISTICS, OVER A PERIOD OF TIME, THE RELATIVE POSITION OF EACH AREA SHOULD REMAIN APPROXIMATELY THE SAME COMPARED TO OTHER AREAS MAKING UP THE NEGRO COMMUNITY. SECOND, THOSE NEGRO RESIDENTS OF THE SAME RESIDENTIAL AREA SHOULD REVEAL MANY SIMILARITIES OF CHARACTERIZING FACTORS REGARDLESS OF THE STAGE OF SUCCESSION CHARACTERISTIC OF THEIR AREA OF RESIDENCE. FINALLY, NEGROES WHO INVADE WHITE AREAS SHOULD REVEAL HIGH RESEMBLANCES TO THOSE WHITE RESIDENTS BEING REPLACED.

HYPOTHESES DERIVED FROM MODELS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION

IN ORDER THAT THE STEPS IN THE DEVELOPMENT OF THIS THESIS MAY BE FURTHER RESTATED AND CLARIFIED, IT IS FELT THAT THE GENERAL PROBLEM BEING CONSIDERED SHOULD ONCE AGAIN BE ASSERTED. IT IS THE INTENTION

OF THIS THESIS TO DETERMINE THE PROCESS MOST INFLUENTIAL IN CREATING ECOLOGICAL VARIATION WITHIN A NEGRO COMMUNITY. TO REDUCE SUCH A GENERAL PROBLEM TO A LEVEL WHICH CAN BE STUDIED EMPIRICALLY, TWO PROCESSES HAVE BEEN SELECTED ON THE BASIS OF RELEVANT LITERATURE AND THEORIES. EXPECTED VARIATIONS RESULTANT FROM A PROCESS OF INVASION-SUCCESSION ALONE HAVE BEEN DESCRIBED PREVIOUSLY. LIKEWISE, SUCH A PATTERN EXPECTED TO RESULT WHEN AREAL DIFFERENTIATION IS CONSIDERED AS AN INFLUENTIAL PROCESS RESPONSIBLE FOR A PATTERN OF ECOLOGICAL VARIATION HAS ALSO BEEN PRESENTED. THE PROCEDURE TO BE FOLLOWED FROM THIS POINT IS FIRST TO ABSTRACT HYPOTHESES FROM THE TWO MODELS BEING CONSIDERED FOR EMPIRICAL TESTING. THEN IT WILL MERELY BE A MATTER OF DETERMINING WHICH MODEL IS MORE POSITIVELY SUPPORTED IN ITS PREDICTION OF A PATTERN OF ECOLOGICAL VARIATION FOR A NEGRO COMMUNITY.

THIS LAST STEP WILL INVOLVE FIRST A TESTING OF THE VALIDITY OF THE MODEL OF INVASION-SUCCESSION CONCERNING A SINGLE HYPOTHESIZED STATEMENT, FOLLOWED BY A TESTING OF THE MODEL OF AREAL DIFFERENTIATION. THE CONCLUSION, AS A RESULT, INCLUDES THREE POSSIBILITIES. EITHER IT WILL BE FOUND THAT THE MODEL OF INVASION-SUCCESSION IS A MORE ACCURATE PREDICTION OF ECOLOGICAL VARIATION EXISTING IN THE NEGRO COMMUNITY, OR IT WILL BE DISCOVERED THAT THE FACTOR OF "AREA" IS SIGNIFICANT AND THAT THE SECOND MODEL OF AREAL DIFFERENTIATION PROVIDES A MORE PRECISE PICTURE OF ECOLOGICAL VARIATION, OR, FINALLY, A THIRD POSSIBILITY IS THAT

NEITHER MODEL GIVES A COMPLETE REPRESENTATION OF HOW ECOLOGICAL VARIATION DEVELOPS. IN THAT LATTER CASE, EITHER SOME OTHER ECOLOGICAL PROCESS OR PROCESSES MIGHT BE RESPONSIBLE FOR THE CREATION OF ECOLOGICAL VARIATION WITHIN THE NEGRO COMMUNITY OR BOTH INVASION-SUCCESSION AND AREAL DIFFERENTIATION OPERATE SIMULTANEOUSLY, RESULTING IN ECOLOGICAL PATTERNS CHARACTERISTIC OF BOTH PROCESSES.

WITH SUCH INTENTIONS IN MIND, THEREFORE, THE FOLLOWING HYPOTHESES HAVE BEEN CONSIDERED SIGNIFICANT AND HAVE BEEN ABSTRACTED FROM THE MODELS GIVEN ABOVE TO BE TESTED EMPIRICALLY.

HYPOTHESES BASED UPON THE INVASION-SUCCESSION MODEL

1. NEGROES RESIDING IN AREAS CHARACTERIZED BY THE SAME STAGE OF SUCCESSION WILL SHOW RELATIVELY SIMILAR VALUES OF INDICATORS OF HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS, WHILE NEGROES RESIDING IN AREAS OF DIFFERENT STAGES OF SUCCESSION WILL SHOW RELATIVELY DIFFERENT VALUES FOR SUCH INDICATORS.

2. THERE WILL BE A GRADIENT* PATTERN OF SUCH FACTORS AS HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS ACCORDING TO STAGE OF SUCCESSION.

---

*THE TERM "GRADIENT" USED IN BOTH MODELS DOES NOT NECESSARILY IMPLY A "SPATIAL" OR "ZONAL" GRADIENT PATTERN, ALTHOUGH CONCENTRIC ZONES MAY APPEAR WITH RESPECT TO THE PATTERN INDICATED BY THE INVASION-SUCCESSION MODEL. "GRADIENT" AS EMPLOYED IN THIS STUDY REFERS MORE SPECIFICALLY TO THE "STABILITY" AND "CONSISTENCY" OF AREAL CHARACTERISTICS. STABILITY IMPLIES A TIME ELEMENT AND SUGGESTS THAT THE RELATIVE RANKINGS OF AREAS BY THEIR AREAL CHARACTERISTICS WILL REMAIN CONSTANT OVER TIME. CONSISTENCY REFERS TO THE CONSTANCY OF THE RELATIVE RANKINGS OF AREAS WITH REGARD TO ALL OF ITS AREAL CHARACTERISTICS BEING CONSIDERED.

3. NEGROES WHO INVADE CONTIGUOUS WHITE AREAS WILL SHOW DIFFERENT VALUES FOR INDICATORS OF HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS THAN THOSE WHITES BEING REPLACED.

HYPOTHESES BASED UPON THE AREAL DIFFERENTIATION MODEL

1. NEGRO RESIDENTS OF THE SAME RESIDENTIAL STATUS AREA WILL REVEAL SIMILAR VALUES OF INDICATORS FOR HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS, WHILE NEGROES RESIDING IN DIFFERENT RESIDENTIAL STATUS AREAS WILL SHOW DIFFERENT VALUES OF SUCH INDICATORS REGARDLESS OF STAGE OF SUCCESSION CHARACTERISTIC OF ANY AREA.

2. THERE WILL BE A GRADIENT* PATTERN OF NEGRO RESIDENTIAL STATUS AREAS BY HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS.

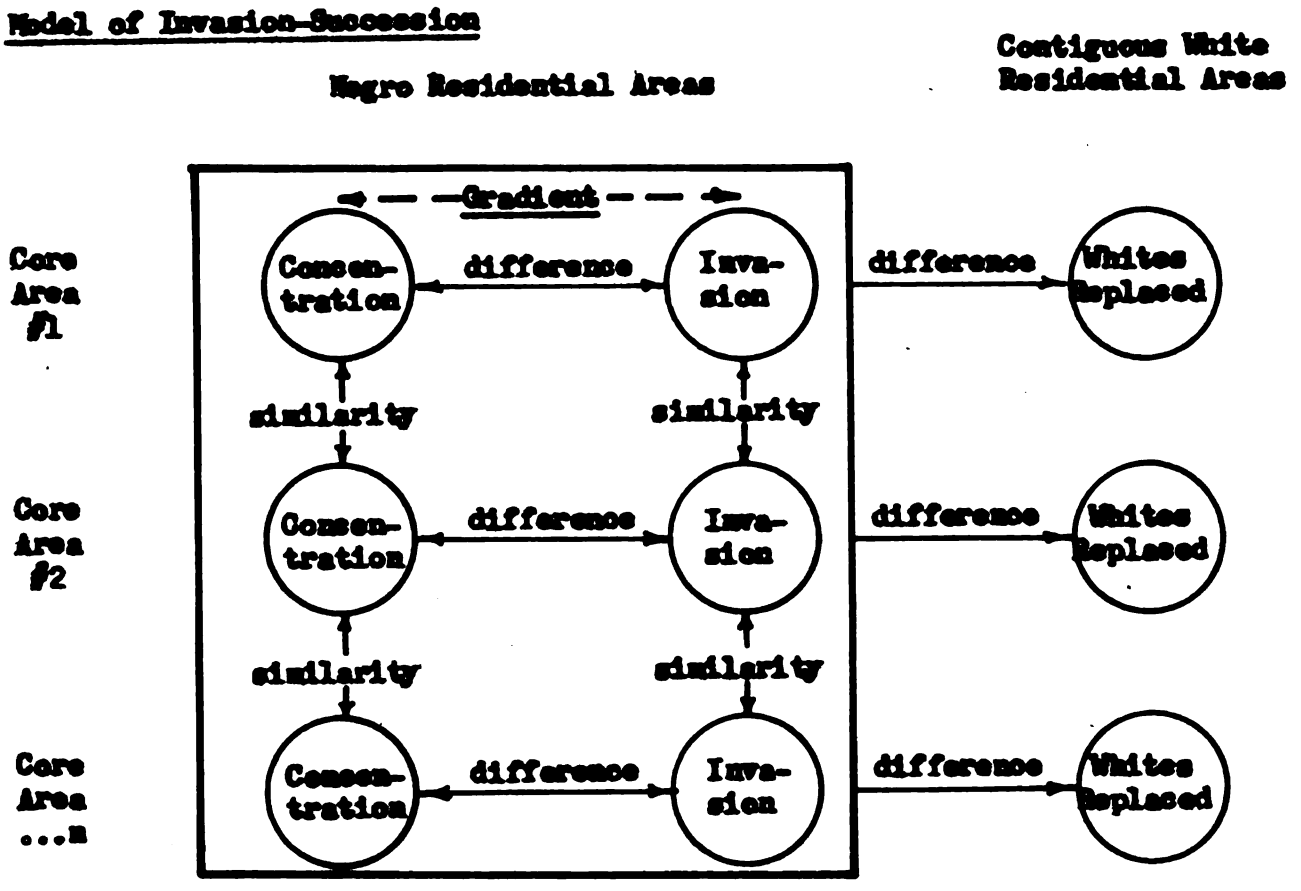
3. NEGROES WHO INVADE CONTIGUOUS WHITE RESIDENTIAL AREAS WILL SHOW MANY SIMILARITIES IN THE VALUES OF INDICATORS FOR HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS AND FAMILY CHARACTERISTICS TO THOSE WHITES BEING REPLACED.

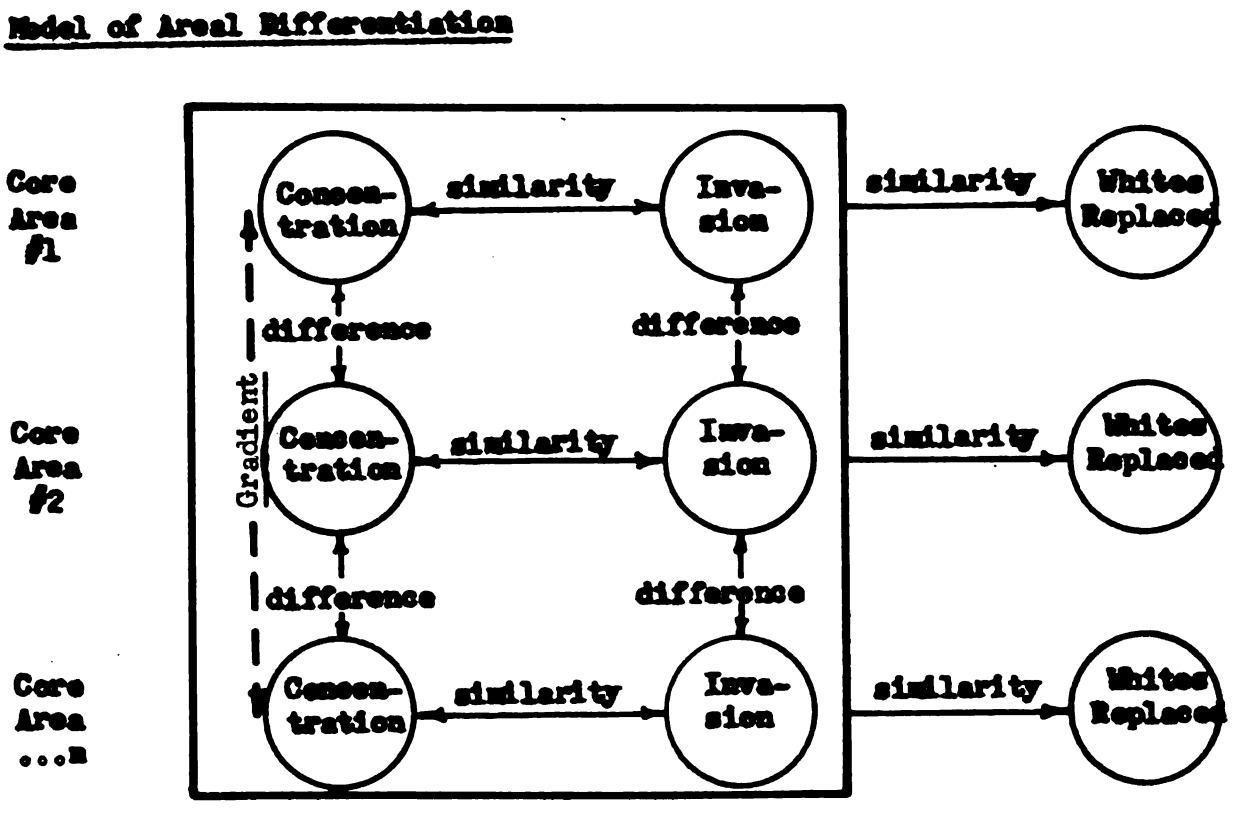
WITH THESE HYPOTHESES IN MIND THE FOLLOWING FIGURE HAS BEEN CONSTRUCTED TO REPRESENT THESE RELATIONSHIPS GRAPHICALLY AND, THEREFORE, TO ADD SOME CLARITY TO THE INTENTIONS OF THIS STUDY. (SEE FIGURE 6)

METHODOLOGY

WITH THE HYPOTHESES SPECIFICALLY STATED, WE SHALL PROCEED TO SUGGEST THE METHODS OF INVESTIGATION SELECTED FOR USE IN THIS STUDY. HOWEVER,

FIGURE 6. MODELS OF ECOLOGICAL VARIATION





BEFORE DISCUSSING IN DETAIL THIS TOPIC A FEW COMMENTS SHOULD BE MADE CONCERNING THE CONDITIONS AND LIMITATIONS CHARACTERISTIC OF THIS STUDY ALONE.

THE INITIAL STUDY AND COLLECTION OF DATA WAS SUPPORTED FINANCIALLY BY THE GRAND RAPIDS HUMAN RELATIONS COMMISSION. THEIR INTEREST WAS PRIMARILY IN A GENERAL SURVEY OF THE NEGRO COMMUNITY, ITS POPULATION AND LOCATION WITHIN THE LARGER URBAN COMMUNITY. LITTLE UP TO THIS TIME HAS BEEN DONE TO ACQUIRE SUCH INFORMATION REGARDING THE TOTAL NEGRO POPULATION.[10] FURTHERMORE, AS THE NEGRO POPULATION INCREASED BETWEEN 1950 AND 1959, THE DIFFICULTY OF ACCOMPLISHING A COMPLETE SURVEY INCREASED ALSO. THIS STUDY ACTUALLY WAS UNDERTAKEN IN APRIL, 1959, AND THE DATA COMPLETELY COLLECTED BY MAY, 1959.

BEFORE DISCUSSING THE SURVEY ITSELF, MENTION WILL BE MADE OF SOME LIMITATIONS WHICH IT IS FELT ARE NECESSARY TO CONSIDER WITH RESPECT TO THE RESULTS OF THIS STUDY. FIRST, AN ATTEMPT HAS BEEN MADE TO INVESTIGATE THE PATTERNS OF SEGREGATION AND INVASION-SUCCESSION OVER A PERIOD OF APPROXIMATELY TWENTY YEARS. THE PERIODS SELECTED, AS ALREADY MENTIONED IN CHAPTER III, WERE 1940, 1950, AND 1959. OBVIOUSLY, THE TIME PERIOD BETWEEN 1950 AND 1959 IS NOT UNIFORM IN LENGTH WITH THE PERIOD 1940-50. HOWEVER, IT IS FELT THAT THE DIFFERENCE WILL NOT AFFECT THE PATTERNS DEVISED TO ANY LARGE EXTENT.

---

10. ONLY ONE COMPREHENSIVE STUDY IS KNOWN TO THE WRITER: A STUDY OF HOUSING IN SELECTED AREAS OF GRAND RAPIDS. EDWARD KING, DIRECTOR, COMMUNITY SERVICE. GRAND RAPIDS, MICH.: GRAND RAPIDS URBAN LEAGUE AND BROUGH COMMUNITY ASSOCIATION, (AUGUST, 1952).

BUT THE TIME ELEMENT MUST ALSO BE CONSIDERED IN ANOTHER PERSPECTIVE. WE HAVE SELECTED ONLY THREE POINTS IN TIME WITHIN THE TWENTY YEAR TIME SPAN. AS ALIHAN HAS CRITICALLY COMMENTED BEFORE,[11] IT IS ERRINGLY ASSUMED THAT A SERIES OF SNAPSHOTS WHICH ARE GIVEN MECHANICAL ANIMATION EXHIBIT THE REAL INTERNAL CONTINUITY OF THE PROCESS THEY ARE SUPPOSE TO REPRESENT. IT IS DIFFICULT TO ACCURATELY DESCRIBE THE CONTINUITY OF ANY ECOLOGICAL PROCESS. AS A RESULT WE MUST BE SATISFIED WITH ASSUMING A UNIFORM PATTERN OF CHANGE TO HAVE OCCURRED BETWEEN EACH "SNAPSHOT" AS SUGGESTED OF THE TWO ECOLOGICAL PROCESSES DESCRIBED PREVIOUSLY IN CHAPTER III.

A FINAL CONSIDERATION OF THE TIME ELEMENT DEALS SPECIFICALLY WITH THE SOURCES OF THE DATA USED IN THIS STUDY AND THEIR COMPARABILITY. THERE WERE TWO PRIMARY SOURCES OF DATA UTILIZED IN OBTAINING THE FINAL RESULTS USED TO REPRODUCE FIGURES 2, 3, AND 4, THAT IS, TO REPRODUCE THE PATTERNS OF SEGREGATION AND INVASION-SUCCESSION FOR GRAND RAPIDS FROM 1940 TO 1959. THE SOURCE OF DATA FOR 1940 AND 1950 WAS THE BLOCK STATISTICS FOR GRAND RAPIDS, A SUPPLEMENT TO THE UNITED STATES CENSUS OF HOUSING. DATA FOR 1959, HOWEVER, WERE OBTAINABLE ONLY BY A NEARLY COMPLETE SURVEY OF NEGRO RESIDENTIAL AREAS WITHIN THE CITY. THE INFORMATION MAINLY OBTAINED IN THIS GENERAL SURVEY AMOUNTED TO THE NUMBER OF NEGRO DWELLING UNITS IN PROPORTION TO THE TOTAL NUMBER OF OCCUPIED DWELLING UNITS WITHIN BLOCKS INCLUDED IN THE

---

11. ALIHAN, MILLA A., SOCIAL ECOLOGY: A CRITICAL ANALYSIS. NEW YORK: COLUMBIA UNIVERSITY PRESS, 1938. PP. 136-7.

NEGRO RESIDENTIAL AREAS OF 1959. THE LIMITATION SUGGESTED CONCERNING THIS POINT IS THE COMPARABILITY OF THE TWO TYPES OF DATA, ONE FROM CENSUS INFORMATION WHILE THE OTHER FROM AN EXTENSIVE SURVEY. THE PATTERN, HOWEVER, AS REPRESENTED IN FIGURE 4 SEEMS TO FOLLOW THE GENERAL DIRECTION AS INDICATED BY THE PREVIOUS PERIODS OF 1940 AND 1950. THERE IS NO WAY OF INDICATING EMPIRICALLY HOW COMPARABLE THE TWO SOURCES ARE AND IN THIS THESIS LITTLE USE WILL BE MADE OF THEM SIMULTANEOUSLY. HOWEVER, WHERE THIS IS DONE PRECAUTIONS WILL BE SUGGESTED AS TO THE ACCEPTABILITY OF THE COMPARISON.

A FINAL REMARK CONCERNING LIMITATIONS RELATIVE TO THIS STUDY IS ONE COMMONLY AND TRADITIONALLY MENTIONED IN ALL STUDIES. THIS STUDY DEALS ONLY WITH SPECIFICITIES, I.E., WITH ONLY ONE NEGRO COMMUNITY WITHIN A SPECIFIC NORTHERN CITY OF A SPECIFIC SIZE WITH ITS OWN PECULIAR BACKGROUND AND GROWTH PATTERNS. THUS, IT IS DIFFICULT TO SUGGEST THAT THIS STUDY ALONE SUPPORTS ANY GENERALIZATIONS WHICH MAY BE POSED. RATHER, THIS STUDY TRIES TO SUGGEST POSSIBLE GENERALIZATIONS WHICH COULD BE MADE CONCERNING NEGRO COMMUNITIES UNDER CERTAIN CONDITIONS, IF AND WHEN THEY ARE SUPPORTED BY A NUMBER OF EMPIRICAL STUDIES SIMILAR IN INTENT TO THIS MORE OR LESS SPECIFIC INVESTIGATION.

USE OF BLOCK STATISTICS. MORE WILL NOW BE SAID CONCERNING THE METHODS OF INVESTIGATION EMPLOYED WITHIN THE SCOPE OF THIS STUDY. MENTION WAS MADE PREVIOUSLY OF THE TWO MAJOR SOURCES OF INFORMATION: BLOCK STATISTICS AND SURVEY. THE TWO WILL BE DEALT WITH SEPARATELY IN THE REMAINDER OF THIS SECTION.

Two specific functions will be made of the Block Statistics for Grand Rapids for 1940 and 1950. Block Statistics have already been utilized to determine the patterns of segregation and invasion-succession. The intensity of Negro residents was determined by measuring the proportion of Negro dwelling units to the total occupied dwelling units existing within the same block. Thus, instead of analyzing the Negro community in terms of areas equivalent to census tracts, blocks were employed as the basic unit of analysis. This was found more suitable because (1) the Negro population is not as large and does not cover as large an area of residence as that found in larger metropolitan areas, and, therefore, a smaller unit of analysis is needed than the census tract; (2) furthermore, census tracts have not been officially determined for Grand Rapids; and (3) data by blocks give a more accurate picture of Negro residential segregation and invasion-succession.[12]

A second function applied to the Block Statistics for Grand Rapids is the development of a number of indicators of housing conditions for stages of succession and residential status areas. Variables utilized in the thesis include: proportion occupied dwelling units owner occupied, proportion of occupied dwelling units needing major repairs (dilapidated) or with no private bath, extent of overcrowding, and

---

12. Cowgill, Donald O., and Cowgill, Mary S., "An Index of Segregation Based on Block Statistics," ASR, Vol. 16, December, 1951, pp. 825-31. In this article Cowgill criticizes the use of census tracts as an index of segregation. The same criticisms apply in this thesis to support the use of blocks rather than census tracts.

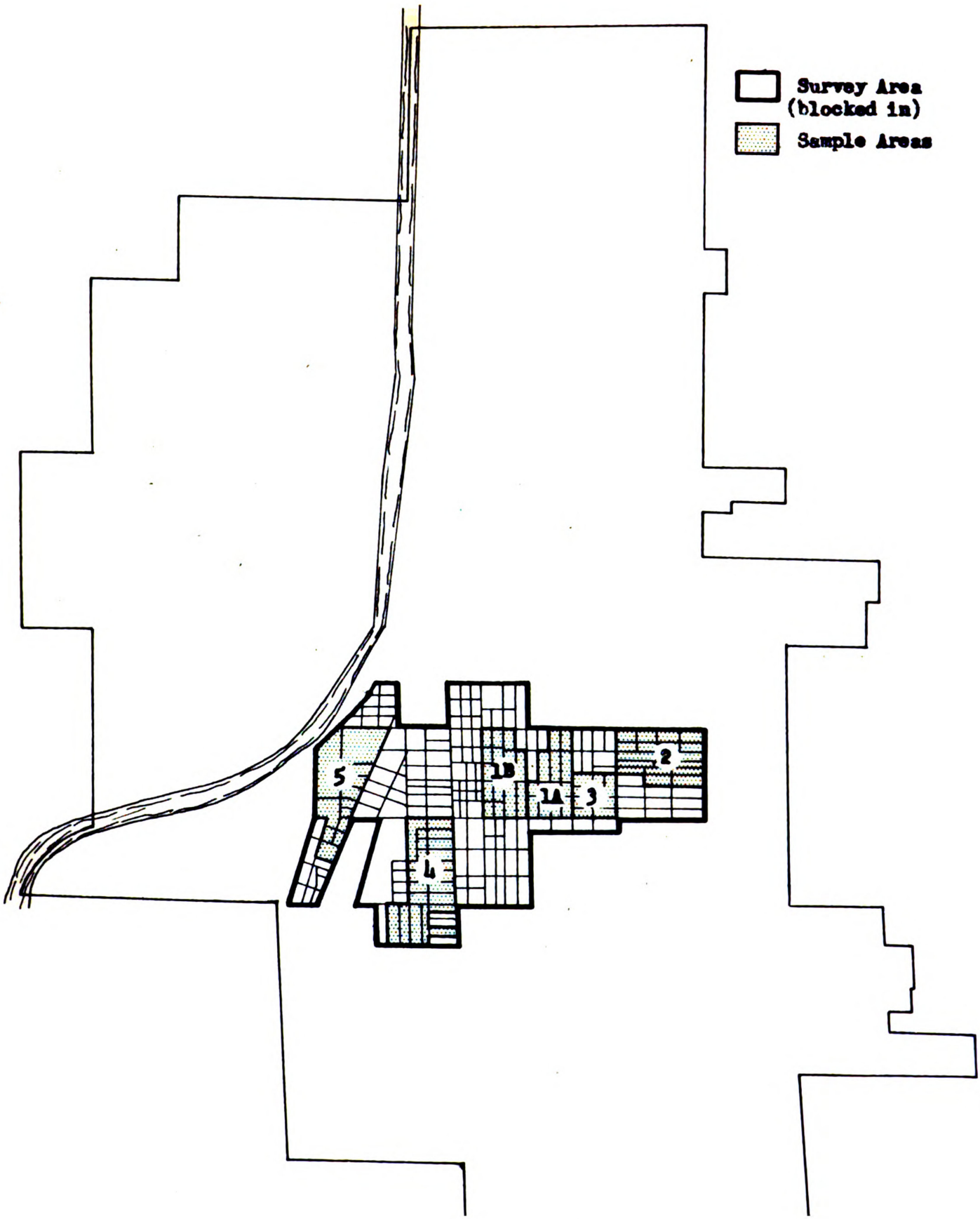
AVERAGE MONTHLY RENT. SINCE THE BLOCK IS THE UNIT OF ANALYSIS IN THIS STUDY, VARIOUS VALUES FOR EACH OF THESE VARIABLES GIVES A FAIRLY ACCURATE PICTURE OF EACH BLOCK INVESTIGATED. BY COMBINING BLOCKS INTO RESIDENTIAL STATUS AREAS OR CATEGORIZING THEM BY STAGE OF SUCCESSION, PARTIAL TESTING OF OUR HYPOTHESES IS POSSIBLE AND WILL FOLLOW IN THE NEXT CHAPTER.

USE OF SURVEY DATA. TWO PHASES OF THE SURVEY CONDUCTED IN MAY, 1959, ARE DISTINGUISHABLE AND SERVE DIFFERENT PURPOSES IN THE STUDY. BOTH PHASES, HOWEVER, WERE CARRIED OUT SIMULTANEOUSLY. FIRST, A GENERAL SURVEY OF THE TOTAL NEGRO COMMUNITY EXISTING IN 1959 WAS NECESSARY TO PROVIDE COMPARABLE DATA TO WHAT WAS OBTAINABLE FROM BLOCK STATISTICS OF 1940 AND 1950. THIS WOULD COMPLETE THE PICTURE OF THE SEGREGATION AND INVASION-SUCCESSION PATTERNS UP TO 1959, RATHER THAN MERELY TO 1950, WHICH WOULD HAVE LIMITED THE PATTERN ONLY TO A TEN YEAR PERIOD. A COMPLETE SURVEY TO OBTAIN DATA ON THE PROPORTION OF NEGRO HOUSEHOLDS FOR EACH BLOCK OF NEGRO RESIDENCE WOULD REQUIRE INITIALLY SOME CONCEPTION OF THE LOCATION AND EXTENT OF NEGRO RESIDENTIAL AREAS. FROM THE BLOCK STATISTICS OF 1940 AND 1950 THE GENERAL LOCATION OF THE NEGRO COMMUNITY WITHIN THE CITY WAS AVAILABLE. HOWEVER, SOME INFORMATION WAS NECESSARY TO DETERMINE THE EXPANSION OF NEGRO RESIDENTIAL AREAS DURING THE DECADE FOLLOWING 1950. BY CONFERRING WITH A NUMBER OF KNOWLEDGEABLE PERSONS CONCERNING THE EXPANSION OF THE NEGRO COMMUNITY IN GRAND RAPIDS, THE APPROXIMATE

BOUNDARIES OF THE 1959 NEGRO GHETTO WERE DELINEATED AND MAPPED. THIS, THEN, CONSTITUTED THE TOTAL AREA TO BE COVERED BY THE GENERAL SURVEY. IT WAS FOUND THAT THE BOUNDARIES SUGGESTED WERE MORE THAN ADEQUATE TO ENVELOP THE WHOLE NEGRO COMMUNITY. FIGURE 7 INDICATES THE AREA WITHIN WHICH THE GENERAL SURVEY WAS CONDUCTED. NEGROES RESIDING OUTSIDE THE NEGRO GHETTO OF 1959 WERE LOCATED BY MEANS OF A PREVIOUS STUDY. THIS INFORMATION WAS USED PREVIOUSLY IN DETERMINING NEGRO RESIDENCE AREAS FOR 1959. IT WAS FOUND, HOWEVER, THAT NONE OF THESE NEGROES LIVING OUTSIDE THE GENERAL SURVEY AREA RESIDED IN BLOCKS CONTIGUOUS TO THE BOUNDARIES OF THE SELECTED AREA FOR THE SURVEY. THIS SUGGESTS THAT THE ENTIRE NEGRO COMMUNITY, THEREFORE, WAS INCLUDED WITHIN THE SCOPE OF THE GENERAL SURVEY.

THE SECOND PHASE OF THE SURVEY CONSTITUTED THE SELECTION OF SAMPLE AREAS WITHIN THE AREA OF THE NEGRO COMMUNITY WITHIN WHICH TO CONDUCT A MORE INTENSIVE INTERVIEWING PROGRAM. SIX AREAS WERE SELECTED AND CAN BE LOCATED IN FIGURE 7. ON THE BASIS OF THE CASE STUDY RECORDED IN CHAPTER III, IT CAN BE OBSERVED THAT AREAS 1A, 2, AND 3 CONSIST OF A MAJOR PART OF THE EAST CORE AREA. AREAS 1B AND 4 ARE EXTENSIONS OF THE MIDDLE CORE AREA, WHILE AREA 5 IS PART OF THE WEST CORE AREA. THE CRITERIA FOR THE SELECTION AND DELINEATION OF THESE SAMPLE AREAS INCLUDED FOUR MAJOR ASPECTS: (1) THE AREAS MUST BE OF A UNIFORM SIZE, I.E., APPROXIMATELY THE SAME NUMBER OF BLOCKS AND DWELLING UNITS; (2) THE AREAS MUST BE SCATTERED EVENLY THROUGHOUT THE WHOLE NEGRO

Figure 7. Survey Area and Sample Areas in which Interviewing was conducted: May, 1959.



COMMUNITY AREA AND NOT BUNCHED TOGETHER IN A SINGLE SECTION OF THAT AREA; (3) THE AREAS MUST ALLOW A RANGE OF STAGES OF SUCCESSION RATHER THAN CONSISTING ONLY OF AREAS CHARACTERIZED BY ONE STAGE OF SUCCESSION (THIS WAS OBTAINED BY SELECTING THE AREAS AS EXTENSIONS OF THE MAJOR CORE AREAS BEGINNING NEAR THE CENTER OF THE CORE AND MOVING OUTWARD IN ONE DIRECTION TOWARD THE INVASION AREA); AND (4) THE AREAS MUST BE DELINEATED PARTIALLY ON THE BASIS OF NATURAL BOUNDARIES (THIS MEANT PRIMARILY DELINEATING THE AREAS ON THE BASIS OF MAIN BUSINESS STREETS AND THE EXTENT OF NEGRO EXPANSION). IT IS WITHIN THE BOUNDARIES OF THESE SAMPLE AREAS, THEREFORE, THAT BOTH THE GENERAL SURVEY DATA MENTIONED ABOVE AND THE INTERVIEW DATA WERE OBTAINED.

THE FUNCTION OF THE MORE COMPLETE INTERVIEW DATA IS TO PROVIDE CHARACTERISTICS CATEGORIZED BY STAGES OF SUCCESSION AND AREAS IN ORDER TO ANALYZE THE COMPARISONS EXISTENT BETWEEN THE TWO MODELS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION. BY COMPARING THESE SIX AREAS FIRST ACCORDING TO BLOCKS CATEGORIZED BY STAGE OF SUCCESSION AND SECOND BY CONTRASTING THE SELECTED AREAS THEMSELVES, SOME UNDERSTANDING OF THE MODEL MORE INFLUENTIAL IN THE DEVELOPMENT OF ECOLOGICAL VARIATION IN THE NEGRO COMMUNITY SHOULD BECOME APPARENT. THE CHARACTERISTICS FOR WHICH DATA WERE COLLECTED IN THE INTENSIVE SURVEY FROM THESE SIX AREAS ARE SUMMED UP UNDER THE THREE MAIN HEADINGS OF HOUSING CONDITIONS, SOCIO-ECONOMIC STATUS, AND FAMILY CHARACTERISTICS. THESE DATA WERE OBTAINED FROM BOTH WHITE RESIDENTS AND

NEGRO RESIDENTS WITHIN THE SIX SAMPLE AREAS. THE USE OF THE DATA FROM NEGRO RESIDENTS HAS PREVIOUSLY BEEN EXPLAINED. DATA FROM WHITE RESIDENTS WILL BE UTILIZED IN THE INVESTIGATION OF THE HYPOTHESES DEALING WITH THE RESEMBLANCE OF WHITES REPLACED TO THOSE NEGROES INVADING AN AREA. A LIMITATION EVIDENT AT THIS POINT DEALS WITH THE CONCEPTS OF "WHITES REPLACED" AND "INVADING NEGROES." WHAT IS MEANT BY "WHITES REPLACED" IN THIS STUDY ARE THOSE WHITES LIVING WITHIN AREAS BEING INVADED BY NEGROES. IT REFERS, THEREFORE, NOT TO THOSE WHITES WHO HAVE BEEN REPLACED BY NEGROES ALREADY RESIDING IN THE AREA, BUT TO THOSE WHITES WHO WILL EVENTUALLY BE REPLACED ASSUMING THAT THE PROCESS OF REPLACEMENT WILL CONTINUE. THOSE WHO MORE PREFERRABLY SHOULD HAVE BEEN INTERVIEWED FOR THIS INFORMATION ARE THOSE WHITE RESIDENTS WHO HAVE ALREADY MOVED FROM THE AREA, BUT, OF COURSE, THIS WOULD HAVE BEEN VERY DIFFICULT TO DO. THE ALTERNATIVE, THEREFORE, IS TO COMPARE WHITE RESIDENTS WITH NEGRO RESIDENTS LIVING IN THE SAME RESIDENTIAL AREAS.

THE INTENSIVE DATA WERE OBTAINED FOR EACH BLOCK MAKING UP THESE SIX SELECTED AREAS. A SAMPLE WAS OBTAINED FROM EACH AREA ON A BLOCK BY BLOCK BASIS. AT THE SAME TIME INFORMATION ON THREE ASPECTS WERE OBTAINED FROM EACH HOUSEHOLD IN ALL THE BLOCKS COVERED. THIS PROVIDED DATA TO BE UTILIZED IN THE GENERAL SURVEY AND AT THE SAME TIME PROVIDED A CHECK ON THE REPRESENTATIVES OF THE SAMPLE SELECTED. INTERVIEWS WERE CONDUCTED WITH BOTH A NEGRO SAMPLE AND A WHITE SAMPLE RESIDING IN EACH OF THE SIX AREAS. THE DATA WERE COLLECTED BY THE

USE OF A HIGHLY STRUCTURED SCHEDULE, A COPY OF WHICH MAY BE FOUND IN THE APPENDIX. THE INTERVIEWERS WERE ASSIGNED TO COVER SPECIFIC BLOCKS WITHIN THE SIX AREAS AND ALSO TO OBTAIN THE DATA FOR THE GENERAL SURVEY AT THE SAME TIME FOR THE BLOCKS TO WHICH THEY WERE ASSIGNED. THE PROPORTIONS OF NEGRO HOUSEHOLDS AND WHITE HOUSEHOLDS IN THE SAMPLE WERE HELD AS CLOSE AS POSSIBLE TO THE PROPORTIONS EXISTENT WITHIN EACH SAMPLE AREA. TABLE 16 INDICATES THE DISPARITY BETWEEN THESE PROPORTIONS IN EACH SAMPLE AREA. AREAS 1A, 1B, AND 2 SHOW AN OVERREPRESENTATION OF NEGRO HOUSEHOLDS IN THE SAMPLE WHILE AREAS 3, 4, AND 5 SHOW AN UNDERREPRESENTATION.

TO FURTHER SHOW THE LIMITATIONS AND WEAKNESSES OF THE SAMPLE SELECTED TABLES 17, 18, AND 19 INDICATE A COMPARISON OF THREE VARIABLES FOR THE SIX SAMPLE AREAS. ALTHOUGH IT WAS NOTICED THAT THERE WERE SOME DIFFERENCES BETWEEN THE SAMPLE HOUSEHOLDS AND THE ACTUAL NUMBER OF HOUSEHOLDS WITH REGARD TO THE PROPORTION NEGRO, WHEN THE SIX AREAS ARE RANKED ACCORDING TO THESE PROPORTIONS THE ORDER REMAINS THE SAME FOR THE SAMPLE AND THE UNIVERSE EXCEPT FOR AREAS 1B AND 3 WHICH SHOW A REVERSAL OF THEIR POSITIONS IN THE SAMPLE. THE PROPORTION OF NEGRO HOUSEHOLDS FOR ALL THE SAMPLE AREAS, HOWEVER, FOR BOTH THE SAMPLE AND TOTAL UNIVERSE IS VERY SIMILAR WITH A DIFFERENCE OF ONLY 1.5% OVERREPRESENTATION IN THE SAMPLE.

TABLE 18 RECORDS THE PROPORTION OF NEGROES RESIDING IN SINGLE-FAMILY STRUCTURES FOR ALL SIX SAMPLE AREAS. IT CAN BE OBSERVED THAT WHEN THE SAMPLE AREAS ARE RANKED ACCORDING TO THESE PROPORTIONS, THE

TABLE XVI. TOTAL HOUSEHOLDS AND SAMPLE HOUSEHOLDS, NEGRO AND WHITE, FOR SAMPLE AREAS.

Sample Areas	Total Households					Sample Households				
	Negro		White		Total	Negro		White		Total
	No.	%	No.	%	No.	No.	%	No.	%	No.
1A	159	32.3	333	67.7	492	64	41.8	89	58.2	153
1B	401	56.6	307	43.4	708	83	61.9	51	38.1	134
2	274	41.9	380	58.1	654	128	45.4	154	54.6	282
3	162	58.9	113	41.1	275	47	55.3	38	44.7	85
4	326	67.9	154	32.1	480	122	67.8	58	32.2	180
5	192	53.8	165	46.2	357	95	49.5	97	50.5	192
All Areas	1514	51.0	1452	49.0	2966	539	52.5	487	47.5	1026

TABLE XVII. COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS.

		Sample Areas		Sample	
Sample Areas	Per cent Negro	Rank Order by Per cent Negro	Per cent Negro	Rank Order by Per cent Negro	Per cent Negro
1A	32.3	4	67.9	4	67.8
1B	56.6	3	58.9	1B	61.9
2	41.9	1B	56.6	3	55.3
3	58.9	5	53.8	5	49.5
4	67.9	2	41.9	2	45.4
5	53.8	1A	32.3	1A	41.8
All Areas	51.0		51.0		52.5

TABLE XVIII. COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS RESIDING IN SINGLE-FAMILY STRUCTURES.

		Sample Areas		Sample	
Sample Areas	% Negro in Single-Fam. Structure	Rank Order by % Negro Residing in Single-Family Structure	% Negro in Single-Fam. Structure	Rank Order by % Negro Residing in Single-Family Structure	% Negro in Single-Family Structure
1A	37.7	2	70.1	2	78.1
1B	17.0	3	64.8	3	74.5
2	70.1	4	43.4	4	62.3
3	64.8	5	42.2	5	55.8
4	43.4	1A	37.7	1A	46.9
5	42.2	1B	17.0	1B	28.9
All Areas	42.7		42.7		59.0

TABLE XIX. COMPARISON OF SAMPLE AREAS AND THE SAMPLE SELECTED BY PER CENT NEGRO HOUSEHOLDS WITH LENGTH OF RESIDENCE OVER 10 YEARS AT PRESENT ADDRESS.

		Sample Areas		Sample	
Sample Areas	% Negro with Length of Residence over 10 yrs.	Rank Order by % Negro with Length of Residence over 10 yrs.	% Negro with Length of Residence over 10 yrs.	Rank Order by % Negro with Length of Residence over 10 yrs.	% Negro with Length of Residence over 10 yrs.
1A	2.5	3	28.4	3	36.2
1B	1.5	4	10.7	4	17.2
2	9.9	2	9.9	2	16.4
3	28.4	5	6.8	5	9.5
4	10.7	1A	2.5	1B	7.2
5	6.8	1B	1.5	1A	3.1
All Areas	8.7		8.7		14.1

RANK ORDER OF THE AREAS REMAIN EXACTLY THE SAME ALTHOUGH THE SAMPLE SHOWS AN OVERREPRESENTATION OF SINGLE-FAMILY STRUCTURES OCCUPIED BY NEGROES FOR EACH OF THE SAMPLE AREAS. IN TABLE 19, WHEN THE SAMPLE AREAS ARE RANKED ACCORDING TO THE LENGTH OF RESIDENCE OVER 10 YEARS AT PRESENT ADDRESS FOR NEGRO HOUSEHOLDS, THE AREAS AGAIN STAY SOMEWHAT SIMILAR IN RANK ORDER EXCEPT FOR AREAS 1A AND 1B WHICH REVERSE THEIR POSITIONS IN THE SAMPLE. AGAIN, HOWEVER, THERE IS INDICATED AN OVERREPRESENTATION OF NEGRO RESIDENTS WITH OVER 10 YEARS RESIDENCE AT THEIR PRESENT ADDRESS. THESE TWO FACTORS, OVERREPRESENTATION OF LONG-TIME RESIDENTS AND RESIDENTS OF SINGLE-FAMILY STRUCTURES, SHOULD BE KEPT IN MIND WHEN CONSIDERING THE RESULTS OF THIS STUDY. IT IS NOT CERTAIN WHETHER OR NOT THIS FACTOR WILL SIGNIFICANTLY AFFECT THE COMPARISONS TO FOLLOW IN THE NEXT CHAPTER. NEVERTHELESS, SOME SIMILARITY BETWEEN THE UNIVERSE OF THE SAMPLE AREAS AND THE SAMPLE OBTAINED FROM THESE AREAS HAS BEEN ESTABLISHED.

SINCE THE ANALYSIS TO FOLLOW WILL BE CONCERNED WITH BOTH AREAL DIFFERENCES AND VARIATIONS RESULTANT FROM STAGES OF SUCCESSION, IT IS ALSO NECESSARY TO OBSERVE THE DIFFERENCES BETWEEN THE PROPORTION OF NEGRO HOUSEHOLDS IN THE UNIVERSE OF THE SAMPLE AREAS AND THE SAMPLE HOUSEHOLDS BY STAGES OF SUCCESSION. TABLE 20 INDICATES A FAIRLY CLOSE RESEMBLANCE IN PROPORTION OF NEGRO HOUSEHOLDS BETWEEN THE TWO GROUPS. THE FIRST THREE STAGES OF INVASION, INFILTRATION, AND CONSOLIDATION ARE SLIGHTLY OVERREPRESENTED, WHILE THE FINAL STAGE OF CONCENTRATION

TABLE XX. TOTAL HOUSEHOLDS AND SAMPLE HOUSEHOLDS, NEGRO AND WHITE, BY STAGES OF SUCCESSION OF BLOCKS IN SAMPLE AREAS.

Stage of Succession	Total Households					Sample Households				
	Negro		White		Total	Negro		White		Total
	No.	%	No.	%	No.	No.	%	No.	%	No.
Invasion	10	5.3	177	94.7	187	4	5.9	64	94.1	68
Infiltration	329	29.5	787	70.5	1116	113	30.9	253	69.1	366
Consolidation	619	60.9	397	39.1	1016	223	63.2	130	36.8	353
Concentration	556	85.9	91	14.1	647	199	83.3	40	16.7	239
All Stages	1514	51.0	1452	49.0	2966	539	52.5	487	47.5	1026

IS UNDERREPRESENTED IN THE SAMPLE, ACCORDING TO PROPORTION OF NEGRO HOUSEHOLDS. ONE DIFFICULTY WHICH CAN BE OBSERVED FROM THIS TABLE IS A RESULT OF USING STAGE OF SUCCESSION AS A VARIABLE WHEN DEFINED MERELY BY PROPORTION OF NEGRO HOUSEHOLDS IN A NUMBER OF BLOCKS. AS A RESULT THE NUMBER OF NEGRO RESPONDENTS FOR THE INVASION STAGES IS VERY LOW BECAUSE OF THE VERY CHARACTER OF BLOCKS CLASSIFIED AS INVADED AREAS. THE SAME HOLDS TRUE WITH WHITE HOUSEHOLDS IN BLOCKS CHARACTERIZED AS "CONCENTRATED." HOWEVER, PERHAPS THE BIGGEST FACTOR IN THE MATTER IS THE LOW NUMBER OF BLOCKS CLASSIFIED AS "INVADED" BLOCKS. IT WAS PREVIOUSLY POINTED OUT THAT FEWER INVADED BLOCKS WERE EXISTENT IN 1959 AS COMPARED TO THE PREVIOUS PERIODS OF 1940 AND 1950. AS A RESULT OF THIS TREND FEWER INVADED BLOCKS APPEARED IN THE SAMPLE AREAS THAN EXPECTED, EVEN THOUGH THE ATTEMPT WAS MADE TO INCLUDE A NUMBER OF INVADED AREAS BY MEANS OF THE SELECTION OF THE SAMPLE AREAS.

MANY WEAKNESSES AND LIMITATIONS HAVE BEEN SUGGESTED ABOVE, BUT IT IS FELT THAT THEY DO NOT SUBTRACT SIGNIFICANTLY FROM THE ANALYSIS TO FOLLOW. A COMPLETE COVERAGE OF ALL BLOCKS OF NEGRO RESIDENCE WOULD BE HIGHLY IMPOSSIBLE FOR INTENSIVE INTERVIEWING AND IT HAS BEEN SHOWN THAT EVEN A COMPLETE COVERAGE OF MERELY THE SAMPLE AREAS WOULD BE HIGHLY IMPROBABLE. THE TOTAL NUMBER OF HOUSEHOLDS INTERVIEWED AMOUNT TO 1,026, WHICH IS MORE THAN ONE-THIRD THE TOTAL NUMBER OF HOUSEHOLDS WITHIN THE SAMPLE AREAS. WITH SUCH A LARGE SAMPLE AS OBTAINED IT IS HOPED THAT A COMPARISON OF THE EFFECTS OF STAGE OF SUCCESSION AND AREA UPON ECOLOGICAL VARIATIONS MAY BE FACILITATED IN THAT ENOUGH RESPONSES

FOR EACH CATEGORY MAY MORE FREQUENTLY OCCUR RATHER THAN BEING LIMITED IN SUCH MANIPULATION OF THE DATA BY OBTAINING ONLY A SMALL NUMBER OF TOTAL RESPONSES.

WITH THE LIMITATIONS, CONDITIONS, WEAKNESSES, AND STRENGTHS CLEARLY IN MIND IT IS SUITABLE IN THE DEVELOPMENT OF THIS STUDY TO PASS NOW INTO THE ANALYSIS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION AS MODELS OF ECOLOGICAL PROCESSES OPERATIVE WITHIN THE NEGRO COMMUNITY OF GRAND RAPIDS.

CHAPTER V

ANALYSIS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION AS ECOLOGICAL PROCESSES OPERATIVE WITHIN A NEGRO COMMUNITY.

THE SURVEY OF THE LITERATURE OF HUMAN ECOLOGY IN CHAPTER II, WITH THE INTENT TO EXTRACT AND COMBINE SEGMENTS OF KNOWLEDGE FOR A MORE SYSTEMATIC APPROACH TO UNDERSTANDING THE PROCESSES OPERATIVE IN THE DEVELOPMENT OF ECOLOGICAL PATTERNS OF VARIATION WITHIN A NEGRO URBAN COMMUNITY, HAS YIELDED THE TWO ECOLOGICAL PROCESSES OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION. A MODEL OF EACH PROCESS HAS BEEN CONSTRUCTED AND OUTLINED AND, IN ADDITION, GENERAL HYPOTHESES HAVE BEEN PROPOSED ON THE BASIS OF WHAT EACH MODEL PREDICTS AS TO ITS CONSEQUENTIAL ECOLOGICAL VARIATION PATTERN.

THE CONCLUDING STEP IN THIS THESIS REMAINS THAT OF EMPIRICALLY TESTING THESE DERIVED HYPOTHESES AGAINST DATA OBTAINED FROM A NEGRO URBAN COMMUNITY. ANY SUCH DATA MUST BE RELEVANT TO THE SELECTED MODELS TO BE TESTED. THEREFORE, THIS CHAPTER WILL FIRST ATTEMPT TO RELATE A SELECT NUMBER OF VARIABLES FOR WHICH DATA WERE OBTAINED TO THE GENERAL HYPOTHESES BASED UPON THE TWO ECOLOGICAL MODELS. SECONDLY, THIS CHAPTER WILL PROCEED TO TEST THESE HYPOTHESES IN AN ATTEMPT TO DETERMINE THE ECOLOGICAL MODEL MORE INFLUENTIAL IN THE DEVELOPMENT OF GENERAL ECOLOGICAL PATTERNS WITHIN A NEGRO COMMUNITY. THE THOROUGH ANALYSIS OF EACH HYPOTHESIS WILL BE FOLLOWED

BY A SUMMARY OF FINDINGS WHICH WILL HOPEFULLY ADD TO A MORE CLEAR-CUT CONCLUSION AS TO THE EMPIRICAL VALIDITY OF EITHER OF THE TWO MODELS. THE ATTEMPT TO DRAW CONCLUSIONS FROM THE MAIN ANALYSIS WILL CONSTITUTE THE FINAL CHAPTER OF THIS THESIS.

CHARACTERISTICS OF THE NEGRO COMMUNITY AND THE ECOLOGICAL MODELS.

BEFORE MOVING IMMEDIATELY TO THE TESTING OF THE MODELS OF AREAL DIFFERENTIATION AND INVASION-SUCCESSION, THEREFORE, AN ATTEMPT MUST BE MADE TO BRIDGE THE GAP BETWEEN THE CONCRETE NATURE OF THE VARIABLES EMPLOYED IN THE ANALYSIS AND THE THEORETICAL MODELS PREVIOUSLY PROPOSED. AS PREVIOUSLY STATED, THE HYPOTHESES ABSTRACTED FROM THE INVASION-SUCCESSION AND AREAL DIFFERENTIATION MODELS MADE REFERENCE ONLY TO THREE GENERAL CATEGORIES OF VARIABLES: HOUSING CHARACTERISTICS, SOCIO-ECONOMIC CHARACTERISTICS, AND FAMILY CHARACTERISTICS. IN MORE SPECIFIC TERMS THE FOLLOWING LIST PRESENTS THE VARIABLES TO BE SUBSUMED UNDER EACH GENERAL HEADING:

A. HOUSING CHARACTERISTICS.

1. NUMBER OF ROOMS PER DWELLING UNIT.
2. NUMBER OF PERSONS PER DWELLING UNIT.
3. TYPE OF STRUCTURE. (NUMBER OF FAMILIES)
4. GENERAL CONDITION OF STRUCTURE.
5. TENURE STATUS.
6. VALUE OF HOUSE.
7. MONTHLY RENT.

B. SOCIO-ECONOMIC CHARACTERISTICS.

1. EMPLOYMENT STATUS OF MALE HEAD OF HOUSEHOLD.
2. OCCUPATION.
3. EMPLOYMENT STATUS OF WIFE.
4. ANNUAL FAMILY INCOME.
5. EDUCATIONAL ATTAINMENT.
6. RELIGIOUS AFFILIATION.

C. FAMILY CHARACTERISTICS.

1. MARITAL STATUS.
2. PLACE OF BIRTH OF HEAD OF HOUSEHOLD.
3. LENGTH OF RESIDENCE IN GRAND RAPIDS.
4. LENGTH OF RESIDENCE AT PRESENT ADDRESS.

WITH THESE SPECIFIC VARIABLES STATED, THE NEXT STEP TOWARD THE TESTING OF THE MODELS IS TO SPELL OUT PRECISELY WHAT THE EXPECTED RELATIONSHIP EACH VARIABLE SHOULD MAINTAIN IN THE ECOLOGICAL VARIATION PATTERNS RESPECTIVELY LINKED TO THE MODELS OF INVASION-SUCCESSION AND AREAL DIFFERENTIATION. THE PROCEDURE OF TESTING WILL PRIMARILY CONSIST OF MANIPULATING AND ARRANGING THE DATA OF THESE SELECTED VARIABLES, FIRST, ACCORDING TO STATUS AREAS IN WHICH THE RESPONDENTS RESIDED AND, FINALLY, ACCORDING TO STAGES OF SUCCESSION. THUS, THE SAME SET OF VARIABLE DATA WILL BE EMPLOYED FOR THE TESTING OF BOTH MODELS. STATUS AREAS AND STAGES OF SUCCESSION, THEREFORE, TAKE ON THE ROLE OF THE "INDEPENDENT VARIABLES," WHEREAS THE VARIABLES LISTED ABOVE BECOME THE "DEPENDENT VARIABLES." THEIR ECOLOGICAL DISTRIBUTION IS, THUS, ASSUMED TO BE CONSEQUENTIAL TO THE OPERATION OF THE ECOLOGICAL PROCESSES OF AREAL DIFFERENTIATION AND INVASION-SUCCESSION.

ALTHOUGH THE LITERATURE RELEVANT TO THE AREA OF HUMAN ECOLOGY UPON WHICH THIS THESIS RELIES DOES NOT SPECIFICALLY STATE THE PRECISE RELATIONSHIP OF <u>ALL</u> THE VARIABLES SELECTED ABOVE TO THE ECOLOGICAL MODELS IN REFERENCE, NEVERTHELESS, THERE DO APPEAR REFERENCES TO THE GENERAL CATEGORIES OF HOUSING, SOCIO-ECONOMIC STATUS, AND

FAMILY CHARACTERISTICS FROM WHICH INFERENCES CAN BE DEDUCED AS TO THE NATURE OF THE RELATIONSHIP FOR EACH VARIABLE. SOME OF THESE RELATIONSHIPS HAVE ALREADY BEEN SUBSTANTIATED IN THE INITIAL CHAPTER OF THIS THESIS DEALING WITH THE SURVEY OF THE LITERATURE. THEREFORE, IN THE REMAINDER OF THIS SECTION THE PURPOSE WILL BE TO DESCRIBE THE HYPOTHESIZED RELATIONSHIPS OF EACH VARIABLE TO THE TWO ECOLOGICAL MODELS.

SINCE IT WOULD CONSUME TOO MUCH SPACE TO DEAL INDIVIDUALLY WITH EACH VARIABLE, THE EXPECTED RELATIONSHIPS BETWEEN THE DEPENDENT AND INDEPENDENT VARIABLES HAVE BEEN SUMMARIZED IN TABLE FORM IN TABLE 21. THE RELATIONSHIPS OF THE DEPENDENT VARIABLES TO THE INDEPENDENT VARIABLES OF STATUS AREA AND STAGE OF SUCCESSION ARE GIVEN IN THIS TABLE ON THE BASIS OF SPECIFIC INDICES, EACH SELECTED AS SOMEWHAT REPRESENTATIVE OF THE RELATIONSHIP PREDICTED FROM THE TWO ECOLOGICAL MODELS. AS CAN BE SEEN IN THE TABLE, THE DISTINGUISHING UNIT OF ANALYSIS FOR THE MODEL OF AREAL DIFFERENTIATION IS "STATUS AREA," WHEREAS THAT FOR THE INVASION-SUCCESSION MODEL HERE EMPLOYED IS "STAGE OF SUCCESSION." FOR THOSE INDICES OF VARIABLES REVEALING A QUANTITATIVE NATURE AN AVERAGE HAS BEEN COMPUTED. SUCH VARIABLES ARE "NUMBER OF ROOMS PER DWELLING UNIT," "NUMBER OF PERSONS PER DWELLING UNIT," "HOUSE VALUE," "MONTHLY RENT," "ANNUAL FAMILY INCOME," "EDUCATIONAL ATTAINMENT," "LENGTH OF RESIDENCE IN GRAND RAPIDS," AND "LENGTH OF RESIDENCE AT PRESENT ADDRESS." FOR THOSE VARIABLES QUALITATIVE IN NATURE, A

TABLE XXI. EXPECTED RELATIONSHIP BETWEEN DEPENDENT VARIABLES AND INDEPENDENT VARIABLES OF AREA AND STAGE OF SUCCESSION

Dependent Variables	Relationship to Independent Variables	Status Areas		Stages of Succession	
		High Status Areas	Low Status Areas	Invasion (High Sta)	Concentration (Low)
A. Housing Variables					
1. Number of Rooms per Dwelling Unit.	Direct	High Number of Rooms per D.U.	Low Number of Rooms per D.U.	High Number of Rooms per D.U.	Low Number of Rooms per D.U.
2. Number of Persons per Dwelling Unit.	Inverse	Low Number of Persons per D.U.	High Number of Person per D.U.	Low Number of Persons per D.U.	High Number of Persons per D.U.
3. Type of Structure (Number of Families)	Direct	High Proportion Single Family.	Low Proportion Single Family.	High Proportion Single Family.	Low Proportion Single Family.
4. Condition of Structure.	Inverse	Low Proportion in Poor Condition.	High Proportion in Poor Condition.	Low Proportion in Poor Condition.	High Proportion in Poor Condition.
5. Tenure.	Direct	High Proportion Ownership (Home)	Low Proportion Ownership (Home)	High Proportion Ownership (Home)	Low Proportion Ownership (Home)
6. House Value.	Direct	High House Values	Low House Values	High House Values	Low House Values
7. Monthly Rent.	Direct	High Monthly Rent	Low Monthly Rent	High Monthly Rent	Low Monthly Rent
B. Socio-Economic Variables					
1. Employment Status of Male Head of Household.	Direct	High Proportion Head Employed.	Low Proportion Head Employed.	High Proportion Head Employed.	Low Proportion Head Employed.
2. Occupation	Direct	High Proportion White Collar.	Low Proportion White Collar.	High Proportion White Collar.	Low Proportion White Collar
3. Employment Status of Wife	Inverse	Low Proportion Wife Employed.	High Proportion Wife Employed.	Low Proportion Wife Employed.	High Proportion Wife Employed.
4. Annual Family Income	Direct	High Income.	Low Income.	High Income.	Low Income.
5. Educational Attainment	Direct	High Educational Attainment.	Low Educational Attainment.	High Educational Attainment.	Low Educational Attainment.
6. Religious Affiliation.	Direct	High Proportion Episcopalian.	Low Proportion Episcopalian.	High Proportion Episcopalian.	Low Proportion Episcopalian.

(TABLE XXI CONTINUED)

	RELATIONSHIP	HIGH STATUS AREAS	LOW STATUS AREAS	INVASION (HIGH STA)	CONCENTRATION (LOW)
C. FAMILY VARIABLES					
1. MARITAL STATUS	INVERSE	LOW PROPORTION BROKEN HOMES.	HIGH PROPORTION BROKEN HOMES.	LOW PROPORTION BROKEN HOMES.	HIGH PROPORTION BROKEN HOMES.
2. PLACE OF BIRTH OF HEAD OF HOUSEHOLD.	INVERSE	LOW PROPORTION BORN IN SOUTH.	HIGH PROPORTION BORN IN SOUTH.	LOW PROPORTION BORN IN SOUTH.	HIGH PROPORTION BORN IN SOUTH.
3. LENGTH OF RESIDENCE IN GRAND RAPIDS.	DIRECT	HIGH NUMBER OF YEARS RESIDENCE.	LOW NUMBER OF YEARS RESIDENCE.	HIGH NUMBER OF YEARS RESIDENCE.	LOW NUMBER OF YEARS RESIDENCE.
4. LENGTH OF RESIDENCE AT PRESENT ADDRESS.	INVERSE	HIGH NUMBER OF YEARS RESIDENCE.	LOW NUMBER OF YEARS RESIDENCE.	LOW NUMBER OF YEARS RESIDENCE.	HIGH NUMBER OF YEARS RESIDENCE.

PROPORTION IS EMPLOYED AS A REPRESENTATIVE INDEX IN DESCRIBING THE RESPECTIVE RELATIONSHIP TO THE INDEPENDENT VARIABLES.

IN GENERAL, ACCORDING TO TABLE 21, THEREFORE, WITH RESPECT TO THE EXPECTED ECOLOGICAL PATTERN RESULTING FROM THE MODEL OF AREAL DIFFERENTIATION, HIGH VALUES SHOULD BE REFLECTED BY HIGH STATUS AREAS AS A RESULT OF HIGHER STATUS NEGRO FAMILIES SETTLING WITHIN THESE PARTICULAR AREAS. LOW VALUES SHOULD BE RECORDED FOR LOW STATUS AREAS. SUCH A PATTERN WILL BE EXPECTED ONLY WHERE A DIRECT RELATIONSHIP EXISTS BETWEEN THE INDEPENDENT AND DEPENDENT VARIABLES. WITH REGARD TO A FEW OF THE VARIABLES EMPLOYED, AN INVERSE RELATIONSHIP IS EXPECTED. SUCH VARIABLES, ACCORDING TO TABLE 21, ARE "NUMBER OF PERSONS PER DWELLING UNIT," "CONDITION OF STRUCTURE," "EMPLOYMENT STATUS OF WIFE," "MARITAL STATUS," AND "PLACE OF BIRTH OF HEAD OF HOUSEHOLD." THE EXPECTED INVERSE RELATIONSHIP FOR THESE VARIABLES ARE DEPENDENT UPON THE PARTICULAR INDEX USED IN SUCH CASES. FOR EXAMPLE, IT IS PREDICTED THAT IN HIGH STATUS NEGRO AREAS THE SIZE OF THE HOUSEHOLD WILL BE SMALL COMPARED TO NEGRO HOUSEHOLDS OF LOW STATUS AREAS. LIKEWISE, A GREATER PROPORTION OF STRUCTURES OF NEGRO RESIDENCE IN POOR CONDITION SHOULD OCCUR IN LOW STATUS NEGRO AREAS AS COMPARED TO THE PROPORTION OF STRUCTURES IN POOR CONDITION IN HIGH STATUS AREAS. DEPENDING UPON THE INDEX USED, THEREFORE, THE RELATIONSHIP IS EITHER DIRECT OR INVERSE.

SIMILARLY, WITH RESPECT TO THE MODEL OF INVASION-SUCCESSION, SINCE THE STAGE OF INVASION HAS BEEN PREDICTED AS REFLECTING A HIGHER

STATUS THAN THE STAGE OF CONCENTRATION, ACCORDING TO THE LITERATURE CITED, THE TYPE OF RELATIONSHIP FOR EACH VARIABLE IN TABLE 21 SHOULD CORRESPOND TO THAT PROPOSED FOR THE MODEL OF AREAL DIFFERENTIATION. ONE EXCEPTION TO A PERFECT CORRESPONDENCE, HOWEVER, IS THE LAST VARIABLE IN TABLE 21: "LENGTH OF RESIDENCE AT PRESENT ADDRESS." WHEREAS HIGH STATUS AREAS SHOULD REVEAL A STABILITY OF RESIDENCE, THE STAGE OF INVASION, ALSO PREDICTED AS BEING OF HIGH STATUS ACCORDING TO THE MODEL OF INVASION-SUCCESSION, SHOULD REVEAL A LOWER LENGTH OF RESIDENCE AT PRESENT ADDRESS COMPARED TO LONGER ESTABLISHED AREAS OF CONCENTRATION. THUS, FOR BOTH MODELS STATUS BECOMES THE DISTINGUISHING FACTOR. HOWEVER, FOR AREAL DIFFERENTIATION STATUS IS APPLIED TO SPECIFICALLY DISTINGUISHABLE AREAS OF NEGRO RESIDENCE, WHEREAS IN THE INVASION-SUCCESSION MODEL, STATUS IS MORE DEPENDENT UPON THE EXTENT THAT A PARTICULAR AREA HAS PROCEEDED ALONG THE PROCESS OF NEGRO INVASION AND SUCCESSION.

SINCE THE SIGNIFICANT FACTOR FOR BOTH ECOLOGICAL MODELS IS THAT OF "STATUS," IT IS IMPORTANT TO POINT OUT FURTHER THAT AMONG THE DEPENDENT VARIABLES IT IS NECESSARY TO ESTABLISH A HIERARCHY OF RELATIVE SIGNIFICANCE. IN THE LIST OF VARIABLES IN TABLE 21 IT CAN BE SEEN THAT NOT ALL THE VARIABLES ARE DIRECTLY RELATED TO STATUS. THE SOCIO-ECONOMIC VARIABLES SHOULD CORRESPOND MORE DIRECTLY TO STATUS IN BOTH MODELS THAN EITHER HOUSING OR FAMILY VARIABLES. THE OTHER TWO CATEGORIES OF VARIABLES, HOUSING AND FAMILY, SHOULD REVEAL PERHAPS LESS

CORRESPONDENCE THAN SOCIO-ECONOMIC VARIABLES WITH REGARD TO STATUS. THUS, HOUSING AND FAMILY VARIABLES ACTUALLY REFLECT STATUS IN A MORE INDIRECT FASHION. TRADITIONALLY, IN SOCIOLOGICAL ANALYSES OF SOCIAL STATUS, THE VARIABLES SUBSUMED UNDER THE SOCIO-ECONOMIC HEADING IN TABLE 21 HAVE BEEN PREFERRABLY EMPLOYED OVER AGAINST THOSE VARIABLES INCLUDED IN THE TABLE UNDER HOUSING AND FAMILY. THUS, ALTHOUGH IT IS ASSUMED THAT THE SOCIO-ECONOMIC VARIABLES WILL BE MORE SIGNIFICANT IN THE ANALYSIS OF STATUS AS ECOLOGICALLY PATTERNED IN THE TWO MODELS OF AREAL DIFFERENTIATION AND INVASION-SUCCESSION, NEVERTHELESS, HOUSING VARIABLES AND FAMILY VARIABLES SHOULD ALSO TO SOME EXTENT PROVIDE ASSISTANCE IN DEPICTING STATUS DIFFERENCES AND PATTERNS EXISTING WITHIN A NEGRO RESIDENTIAL COMMUNITY.

USING THE DISTRIBUTIONS FOR EACH OF THE SEVENTEEN DEPENDENT VARIABLES LISTED IN TABLE 21, THE FIRST PART OF THE ANALYSIS OF THIS CHAPTER WILL DEAL WITH THE PROBLEM PROPOSED BY THE FIRST HYPOTHESIS. THIS HYPOTHESIS STATES THAT THERE WILL BE A DISTINGUISHABLE DIFFERENCE BETWEEN STATUS AREAS IF THE MODEL OF AREAL DIFFERENTIATION IS VALIDATED OR THAT THERE WILL BE A DISTINGUISHABLE DIFFERENCE BETWEEN STAGES OF SUCCESSION IF INVASION-SUCCESSION HOLDS TRUE AS THE PREDOMINANT ECOLOGICAL PROCESS. IN REFERENCE TO TABLE 21, THEREFORE, IT WOULD BE PREDICTED THAT FOR EACH DEPENDENT VARIABLE EITHER STATUS AREAS SHOULD SHOW SIGNIFICANT DIFFERENCES AND STAGES OF SUCCESSION NO SIGNIFICANT DIFFERENCES OR VICE VERSA, DEPENDING UPON WHICH MODEL IS VALIDATED

AS BEST DESCRIBING THE ECOLOGICAL DISTRIBUTION PATTERNS OF STATUS WITHIN THE NEGRO COMMUNITY. THUS, A TABLE OF PREDICTED RELATIONSHIPS BETWEEN THE DEPENDENT VARIABLES AND THE INDEPENDENT VARIABLES OF STATUS AREAS OR STAGES OF SUCCESSION WOULD EITHER SHOW DIFFERENCES BETWEEN STATUS AREAS AND NO DIFFERENCE BETWEEN STAGES OF SUCCESSION, OR THAT STAGES OF SUCCESSION WOULD SHOW THE SIGNIFICANT DIFFERENCES FOR EACH VARIABLE DISTRIBUTION AND NO DIFFERENCES UNDER THE HEADING OF STATUS AREAS.

THE SECOND HYPOTHESIS OF THIS THESIS ATTEMPTS TO MOVE A STEP BEYOND MERELY SHOWING WHERE THE SIGNIFICANT DIFFERENCES LIE, AND ATTEMPTS TO PROVE THAT NOT ONLY ARE THERE TO BE FOUND SIGNIFICANT DIFFERENCES EITHER BETWEEN STATUS AREAS OR STAGES OF SUCCESSION, BUT THAT THE RELATIVE STATUS POSITION OF A PARTICULAR STATUS AREA OR STAGE OF SUCCESSION (DEPENDING UPON WHICH MODEL IS VALIDATED IN THE FIRST HYPOTHESIS) REMAINS CONSTANT WITH RESPECT TO THE OTHER STATUS AREAS OR STAGES OF SUCCESSION. THE ANALYSIS OF THIS HYPOTHESIS WILL EMPLOY SPECIFIC INDICES FOR EACH DEPENDENT VARIABLE. THUS, FOR STATUS AREAS, THOSE AREAS OF HIGH STATUS SHOULD INDICATE A HIGH VALUE FOR EACH DEPENDENT VARIABLE INDEX, AREAS OF LOW STATUS SHOULD REFLECT A LOW VALUE FOR EACH INDEX AND INTERMEDIATE STATUS AREAS WILL LIKEWISE REVEAL INTERMEDIATE VALUES. ON THE OTHER HAND, IF STAGES OF SUCCESSION AS AN ECOLOGICAL PATTERN IS VALIDATED BY THE FIRST HYPOTHESIS, THE STAGE OF INVASION SHOULD SHOW HIGH VALUES FOR VARIABLE INDICES, THE STAGE OF CONCENTRATION SHOULD REVEAL LOW VALUES,

AND THE INTERMEDIATE STAGES SHOULD INDICATE INTERMEDIATE VALUES. THUS, THE NOTION OF GRADIENT PATTERN AS USED IN THIS THESIS WILL EMPHASIZE THE CONSISTENCY OF STATUS POSITION RELATIVE TO OTHER STATUS AREAS OR STAGES OF SUCCESSION. WHAT IS IMPLIED BY GRADIENT PATTERN IN THIS THESIS WILL BE ELABORATED FURTHER IN THIS THESIS WHEN DEALING WITH THE ACTUAL HYPOTHESIS IN THIS CHAPTER.

THE THIRD HYPOTHESIS OF THIS THESIS RELATES TO THE NATURE OF THE DIFFERENCES BETWEEN WHITES AND NEGRO RESIDENTS. THE MODEL OF INVASION-SUCCESSION HERE PROPOSED THUS STATES THAT NEGROES WILL SHOW SIGNIFICANT DIFFERENCES FOR THE DISTRIBUTION PATTERNS OF ALL SEVENTEEN DEPENDENT VARIABLES LISTED IN TABLE 21, WHEREAS FOR AREAL DIFFERENTIATION NEGROES AND WHITES SHOULD SHOW NO SIGNIFICANT DIFFERENCES BECAUSE OF THE STABILITY FACTOR OF AREAL CHARACTERISTICS REGARDLESS OF RACIAL CHANGE IN THE POPULATION OF ANY RESIDENTIAL AREA.

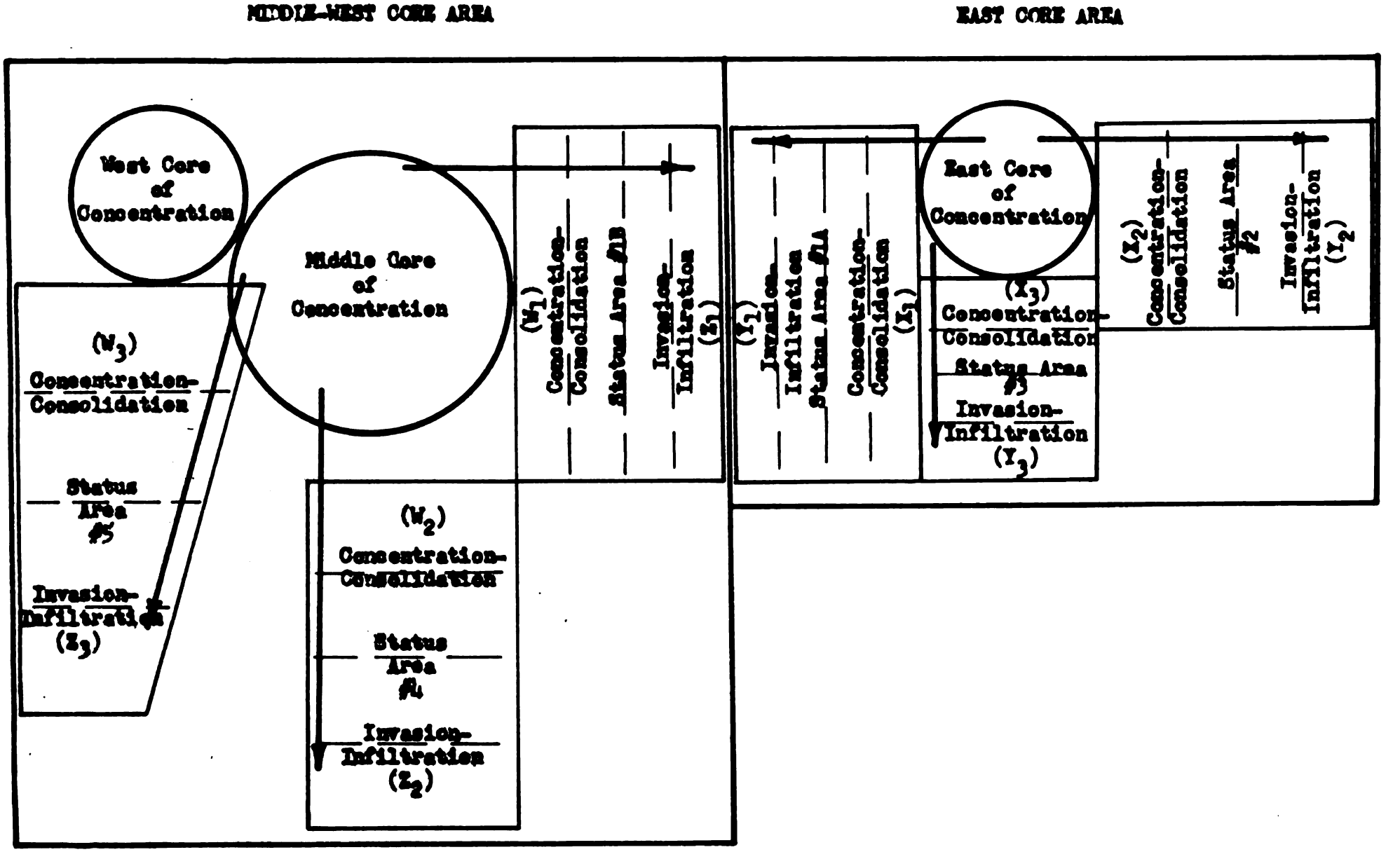
WITH THE GAP BETWEEN THE THEORETICAL MODELS AND THEIR RELATED HYPOTHESES AND THE EMPIRICAL VARIABLES TO BE EMPLOYED SOMEWHAT REDUCED, THE REMAINDER OF THIS CHAPTER WILL DEAL WITH THE ANALYSIS OF THE DATA OUTLINED ACCORDING TO THE THREE GENERAL HYPOTHESES PREVIOUSLY SET FORTH.

HYPOTHESIS #1: ECOLOGICAL VARIATION PATTERNS RESULTANT FROM INVASION-SUCCESSION AND AREAL DIFFERENTIATION.

TO FACILITATE THE ANALYSIS OF THE INTERNAL ECOLOGICAL VARIATION PATTERNS OF THE PARTICULAR NEGRO COMMUNITY WITH WHICH THIS THESIS

DEALS, FIGURE 8 HAS BEEN INSERTED. THE FIGURE, FIRST OF ALL, HAS BEEN DRAWN TO ROUGHLY CORRESPOND IN A GEOGRAPHICAL FASHION WITH THE AREA OF NEGRO RESIDENCE IN GRAND RAPIDS. THREE MAIN AREAL CATEGORIES HAVE BEEN INDICATED: STATUS AREAS, STAGES OF SUCCESSION, AND CORE AREAS. TWO MAJOR CORE AREAS ARE DISTINGUISHABLE AND HAVE BEEN LABELED EAST CORE AREA AND MIDDLE-WEST CORE AREA. THE LATTER ACTUALLY CONSISTS OF TWO CORE AREAS BUT HAS BEEN SUBSUMED UNDER ONE TITLE FOR VARIOUS REASONS. FIRST, BOTH CORE AREAS HAVE AT PRESENT GROWN TOGETHER TO FORM ONE LARGER CORE AREA OF CONCENTRATION. THE MIDDLE CORE AREA SEEMS TO BE PREDOMINANT OVER THE SLOWLY DISAPPEARING WEST CORE AREA. FROM THE COMBINED MIDDLE-WEST CORE AREA OF CONCENTRATION IN THREE DIRECTIONS EXTEND THREE SUB-AREAS OF THE CORE AREA WHICH ARE LABELED STATUS AREAS. SIMILARLY, WITHIN THE EAST CORE AREA EXTENDING IN THREE DIRECTIONS FROM THE CORE AREA OF CONCENTRATION ARE THREE OTHER STATUS AREAS. THESE STATUS AREAS ARE INDICATED IN THE FIGURE AS 1A, 2, AND 3 RESPECTIVELY. THE STATUS AREAS COMPRISING THE MIDDLE-WEST CORE AREA HAVE BEEN NUMBERED 1B, 4, AND 5, RESPECTIVELY. WITHIN EACH STATUS AREA EXTENDING OUTWARD FROM THE CORE AREA OF CONCENTRATION FOR BOTH THE EAST AND MIDDLE-WEST CORE AREAS ARE AREAS WHICH HAVE BEEN CATEGORIZED BY STAGE OF SUCCESSION. THOSE AREAS FARTHEST FROM THE CORE AREAS OF CONCENTRATION ARE MOST OFTEN FOUND TO BE AREAS OF INVASION. THOSE AREAS CLOSEST TO THE CORE AREAS OF CONCENTRATION ARE USUALLY AREAS OF CONCENTRATION. INTERMEDIATE

FIGURE 8. CORE AREAS, STATUS AREAS, AND STAGES OF SUCCESSION AS GEOGRAPHICAL AREAS IN THE NEGRO COMMUNITY OF GRAND RAPIDS, MICHIGAN.



BETWEEN INVASION AND CONCENTRATION STAGES ARE AREAS OF INFILTRATION AND CONSOLIDATION. THE ARROWS IN THE FIGURE THEORETICALLY INDICATE THE DIRECTION OF EXPANSION OUTWARD FROM EACH CORE AREA OF CONCENTRATION, INVASION AREAS BEING AREAS OF FURTHEST EXPANSION. THIS FIGURE WILL BE USED FREQUENTLY IN THE ANALYSIS OF VARIATION AND IN THE TESTING OF SIGNIFICANT DIFFERENCES BETWEEN VARIOUS STATUS AREAS AND STAGES OF SUCCESSION. IT IS HOPED THAT REFERENCE TO SUCH A FIGURE WILL GREATLY INCREASE THE UNDERSTANDING OF THE PROCEDURES USED TO ANALYZE ECOLOGICAL VARIATION PATTERNS IN THE NEGRO COMMUNITY UPON WHICH THIS STUDY FOCUSES.

FINDINGS

THE FIRST STEP IN TESTING THE FIRST HYPOTHESIS INVOLVES THE RUNNING OF CHI-SQUARE* AS TESTS OF SIGNIFICANT DIFFERENCE AMONG THE SIX STATUS AREAS DEPICTED IN FIGURE 8 AND AMONG THE FOUR STAGES OF SUCCESSION (INVASION, INFILTRATION, CONSOLIDATION, CONCENTRATION) FOR EACH OF THE SEVENTEEN VARIABLES EMPLOYED IN THIS STUDY. THROUGHOUT THE STUDY IT SHOULD BE NOTED THAT THE .05 LEVEL OF SIGNIFICANCE IS USED IN ALL CASES AS EVIDENCE OF SIGNIFICANT DIFFERENCE FOR ALL VARIABLE DISTRIBUTIONS.

TABLE 22 LISTS THE CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE AMONG STATUS AREAS AND STAGES OF SUCCESSION FOR THE TOTAL NEGRO COMMUNITY.

---

*THE STATISTICAL FORMULA USED FOR CHI-SQUARE AS A TEST FOR K INDEPENDENT SAMPLES IS AS FOLLOWS:

$$x^2 = \sum_{i=1}^{r} \sum_{j=1}^{k} \frac{(O_{ij} - E_{ij})^2}{E_{ij}}$$

WHERE O_{ij} = OBSERVED NUMBER OF CASES CATEGORIZED IN ITH ROW OF JTH COLUMN

E_{ij} = NUMBER OF CASES EXPECTED UNDER H_0 TO BE CATEGORIZED IN ITH ROW OF JTH COLUMN.

SOURCE: SIEGEL, SIDNEY. NONPARAMETRIC STATISTICS FOR THE BEHAVIORAL SCIENCES. NEW YORK: MCGRAW-HILL, 1956. P. 175.

TABLE XXII. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE AMONG STATUS AREAS AND AMONG STAGES OF SUCCESSION BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.

Variables	Status Areas*				Stages of Succession*			
	x^2	D.F.	P<	H_0	x^2	D.F.	P<	H_0
A. Housing								
1. Rooms per Dwelling Unit	57.56	20	.001	Rejected	29.06	12	.01	Rejected
2. Persons per Dwelling Unit	101.62	25	.001	Rejected	23.19	15	.10	Accepted
3. Type of Structure	60.10	5	.001	Rejected	10.10	3	.02	Rejected
4. Condition of Structure	143.60	10	.001	Rejected	28.31	6	.001	Rejected
5. Tenure	26.50	5	.001	Rejected	13.47	3	.01	Rejected
6. House Value	112.54	15	.001	Rejected	41.57	9	.001	Rejected
7. Monthly Rent	33.44	10	.001	Rejected	3.62	6	.80	Accepted
B. Socio-Economic								
1. Employment Status of Male Head	15.43	10	.20	Accepted	5.54	6	.50	Accepted
2. Occupation	78.31	20	.001	Rejected	22.68	12	.05	Rejected
3. Employment Status of Wife	22.80	5	.001	Rejected	4.97	3	.20	Accepted
4. Annual Family Income	31.94	15	.01	Rejected	26.05	9	.01	Rejected
5. Educational Attainment	71.05	20	.001	Rejected	39.84	12	.001	Rejected
6. Religious Affiliation	52.61	20	.001	Rejected	14.49	12	.30	Accepted
C. Family								
1. Marital Status	19.48	10	.05	Rejected	3.98	6	.70	Accepted
2. Place of Birth of Head	65.40	10	.001	Rejected	16.00	6	.02	Rejected
3. Length of Residence in Grand Rapids	22.95	15	.10	Accepted	1.76	6	.95	Accepted
4. Length of Residence at Present Address	53.97	15	.001	Rejected	50.20	9	.001	Rejected

*Status Areas = 1A, 2, 3, 1B, 4, 5
Stages of Succession = Invasion, Infiltration, Consolidation, Concentration
D.F. = degrees of freedom
P = level of significance
H_0 = null hypothesis

WHEN TESTING THE NULL HYPOTHESIS THAT STATUS AREAS WILL REVEAL NO SIGNIFICANT DIFFERENCE AMONG THEMSELVES, IN GENERAL, THE NULL HYPOTHESIS IS REJECTED FOR MOST OF THE VARIABLES. MOST OF THE SOCIO-ECONOMIC VARIABLES SHOW A REJECTION, EXCEPT FOR "EMPLOYMENT STATUS OF THE MALE HEAD." ALL THE HOUSING VARIABLES SHOW A REJECTION OF THE NULL HYPOTHESIS AND ALL THE FAMILY VARIABLES REJECT THE NULL HYPOTHESIS, WITH THE EXCEPTION OF "LENGTH OF RESIDENCE IN GRAND RAPIDS." IN GENERAL, THEN, THE AREAL DIFFERENTIATION MODEL OF ECOLOGICAL VARIATION IS VALIDATED AT FIRST GLANCE BY THESE DATA.

HOWEVER, IN TABLE 22 AGAIN, WHEN TESTING THE NULL HYPOTHESIS THAT STAGES OF SUCCESSION WILL REVEAL NO SIGNIFICANT DIFFERENCES AMONG THEMSELVES REGARDLESS OF IN WHAT STATUS AREA THEY ARE LOCATED, ONLY TEN OF THE SEVENTEEN VARIABLES TESTED SHOW A REJECTION OF THE NULL HYPOTHESIS. THE MAJOR INDICATORS OF SOCIAL STATUS (OCCUPATION, INCOME, AND EDUCATION) REVEAL A REJECTION OF THE NULL BUT THE OTHER SOCIO-ECONOMIC VARIABLES (EMPLOYMENT STATUS OF MALE HEAD, EMPLOYMENT STATUS OF WIFE, AND RELIGIOUS AFFILIATION) DO NOT SHOW A REJECTION OF THE NULL HYPOTHESIS. GENERALLY, HOUSING VARIABLES REJECT THE NULL HYPOTHESIS EXCEPT FOR "PERSONS PER DWELLING UNIT" AND "MONTHLY RENT." FAMILY VARIABLES REJECT THE NULL HYPOTHESIS EXCEPT "MARITAL STATUS" AND "LENGTH OF RESIDENCE IN GRAND RAPIDS." GENERALLY, THEN, THE INVASION-SUCCESSION MODEL FINDS PARTIAL VALIDATION, PARTICULARLY IN REGARDS TO THE THREE MAJOR INDICATORS OF SOCIAL STATUS.

THUS, THERE APPEARS A CONTRADICTION WITH RESPECT TO THE TWO MODELS OF ECOLOGICAL VARIATION BEING INVESTIGATED. HOWEVER, A CLOSER LOOK AT WHY THE REJECTION OF THE NULL HYPOTHESIS APPEARS IN BOTH CASES WILL PERHAPS EXPLAIN AWAY THE APPARENT CONTRADICTION. TABLE 23 LISTS THE CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN CORE AREA VARIABLES. UPON MOVING TO A LARGER CONCEPTION OF STATUS AREA, I.E., THE CORE AREA, IT IS NOTICEABLE FROM TABLE 23 THAT THE NULL HYPOTHESIS IS AGAIN REJECTED FOR A MAJORITY OF THE SEVENTEEN VARIABLES. FURTHERMORE, A LOOK AT THE THREE MAJOR SOCIAL STATUS VARIABLES (OCCUPATION, INCOME, AND EDUCATION) VALIDATES AN AREAL DIFFERENTIATION PATTERN BETWEEN THE TWO CORE AREAS. THOSE VARIABLES WHICH DO NOT REJECT THE NULL HYPOTHESIS ARE "EMPLOYMENT STATUS OF WIFE" OF THE SOCIO-ECONOMIC VARIABLES; HOUSING VARIABLES OF "PERSONS PER DWELLING UNIT," "HOUSE VALUE," AND "MONTHLY RENT"; AND FAMILY VARIABLES OF "MARITAL STATUS," AND "LENGTH OF RESIDENCE AT PRESENT ADDRESS."

BY CONTROLLING "STATUS AREAS" AND "STAGES OF SUCCESSION" AT THE CORE AREA LEVEL SOME EXPLANATION CAN BE HAD AS TO WHY BOTH MODELS OF ECOLOGICAL VARIATION WERE SUBSTANTIATED WHEN TESTED.

TABLE 24 PRESENTS A SUMMARY OF CHI-SQUARES AS TESTS OF SIGNIFICANCE AMONG STATUS AREAS WITHIN THE SAME CORE AREA. A TEST OF THE NULL HYPOTHESIS OF NO DIFFERENCE AMONG STATUS AREAS WITHIN THE EAST CORE AREA AND THE MIDDLE-WEST CORE AREA SHOW A SUBSTANTIAL SUPPORT OF THE NULL HYPOTHESIS IN BOTH AREAS.

TABLE XXIII. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN THE EAST CORE AREA AND THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.*

VARIABLES	CHI-SQUARE	DEGREES OF FREEDOM	$p <$	H_0
A. HOUSING				
1. ROOMS PER DWELLING UNIT	37.97	5	.001	REJECTED
2. PERSONS PER DWELLING UNIT	12.92	7	.10	ACCEPTED
3. TYPE OF STRUCTURE	26.11	2	.001	REJECTED
4. CONDITION OF STRUCTURE	114.24	3	.001	REJECTED
5. TENURE	21.89	1	.001	REJECTED
6. HOUSE VALUE	9.40	5	.10	ACCEPTED
7. MONTHLY RENT	6.56	3	.10	ACCEPTED
B. SOCIO-ECONOMIC				
1. EMPLOYMENT STATUS OF MALE HEAD	13.99	3	.01	REJECTED
2. OCCUPATION	14.08	5	.02	REJECTED
3. EMPLOYMENT STATUS OF WIFE	1.30	2	.70	ACCEPTED
4. ANNUAL FAMILY INCOME	13.76	3	.01	REJECTED
5. EDUCATIONAL ATTAINMENT	39.54	4	.001	REJECTED
6. RELIGIOUS AFFILIATION	31.97	5	.001	REJECTED
C. FAMILY				
1. MARITAL STATUS	7.56	3	.10	ACCEPTED
2. PLACE OF BIRTH OF HEAD	58.03	4	.001	REJECTED
3. LENGTH OF RESIDENCE IN GRAND RAPIDS	12.56	3	.01	REJECTED
4. LENGTH OF RESIDENCE AT PRESENT ADDRESS	5.80	3	.20	ACCEPTED

*(TOTALS USED FOR EAST CORE AREA = SUM OF STATUS AREAS 1A + 2 + 3;
TOTALS USED FOR MIDDLE-WEST CORE AREA = SUM OF STATUS AREAS 1B + 4 + 5)

TABLE XXIV. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE AMONG STATUS AREAS WITHIN THE EAST CORE AREA AND AMONG STATUS AREAS WITHIN THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.*

Variables	East Core Area				Middle-West Core Area			
	X^2	D.F.	P<	H_0	X^2	D.F.	P<	H_0
A. Housing								
1. Rooms per Dwelling Unit	12.90	8	.20	Accepted	15.49	8	.10	Accepted
2. Persons per Dwelling Unit	17.90	10	.10	Accepted	18.62	10	.05	Rejected
3. Type of Structure	20.05	2	.001	Rejected	23.24	2	.001	Rejected
4. Condition of Structure	5.28	4	.30	Accepted	22.41	4	.001	Rejected
5. Tenure	1.09	2	.70	Accepted	2.67	2	.30	Accepted
6. House Value	69.12	6	.001	Rejected	29.65	6	.001	Rejected
7. Monthly Rent	6.80	2	.05	Rejected	15.43	2	.001	Rejected
B. Socio-Economic								
1. Employment Status of Male Head	.73	2	.70	Accepted	.11	2	.95	Accepted
2. Occupation	17.08	6	.01	Rejected	8.45	6	.30	Accepted
3. Employment Status of Wife	9.64	2	.01	Rejected	12.55	2	.01	Rejected
4. Annual Family Income	12.10	6	.10	Accepted	6.65	6	.50	Accepted
5. Educational Attainment	12.13	6	.10	Accepted	13.91	6	.05	Rejected
6. Religious Affiliation	4.35	6	.70	Accepted	10.22	6	.20	Accepted
C. Family								
1. Marital Status	2.25	2	.50	Accepted	1.58	2	.50	Accepted
2. Place of Birth of Head	6.72	4	.20	Accepted	2.49	4	.70	Accepted
3. Length of Residence in Grand Rapids	4.62	4	.50	Accepted	.55	4	.98	Accepted
4. Length of Residence at Present Address	27.95	6	.001	Rejected	17.31	6	.02	Rejected

* (East Core Area consists of Status Areas 1A, 2, and 3; Middle-West Core Area consists of Status Areas 1B, 4, and 5)

In considering the three major indices of social status (occupation, income, and education) the East Core Area reveals a rejection of the null hypothesis only for the occupation variable, the Middle-West Core Area rejects the null only for education.

In general, then, although the original ecological variation among status areas was substantiated by the data, it can be shown by this table that it was due to the differences which exist at the core area level. By using the core area as a control variable the results show in general a substantiation of the null hypothesis that no significant difference exists among status areas within the same core area.

Table 25, on the other hand, presents a summary of chi-squares as tests of significant difference among stages of succession by core area. By using core area again as a control variable, the same conclusion can be made concerning ecological variation due to invasion-succession as was made for status areas above. In the East Core Area, when the four stages of succession are tested for the null hypothesis, only one of the total seventeen variables show a rejection of the null. For the Middle-West Core Area, only two of the seventeen variables, when tested, rejected the null hypothesis. The tests show quite clearly, then, that when stages of succession are controlled by core area there appear to be few significant differences between the stages of succession. Thus, the variation which was seen to exist in the Negro community at large among stages of succession was actually due to the status difference between the core areas themselves.

TABLE XXV. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN STAGES OF SUCCESSION WITHIN THE EAST CORE AREA AND BETWEEN STAGES OF SUCCESSION WITHIN THE MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.*

	East Core Area				Middle-West Core Area			
Variables	x^2	D.F.	P<	H_0	x^2	D.F.	P<	H_0
A. Housing								
1. Rooms per Dwelling Unit	4.45	3	.30	Accepted	.75	3	.90	Accepted
2. Persons per Dwelling Unit	2.36	3	.70	Accepted	3.32	3	.50	Accepted
3. Type of Structure	4.07	1	.05	Rejected	.43	1	.70	Accepted
4. Condition of Structure	1.07	2	.70	Accepted	.27	2	.90	Accepted
5. Tenure	3.78	1	.10	Accepted	1.30	1	.30	Accepted
6. House Value	4.12	2	.20	Accepted	1.12	2	.70	Accepted
7. Monthly Rent	.45	1	.70	Accepted	.09	1	.80	Accepted
B. Socio-Economic								
1. Employment Status of Male Head	1.57	1	.30	Accepted	1.23	1	.30	Accepted
2. Occupation	1.47	3	.70	Accepted	.61	3	.90	Accepted
3. Employment Status of Wife	2.04	1	.20	Accepted	.16	1	.70	Accepted
4. Annual Family Income	2.15	2	.50	Accepted	1.05	2	.70	Accepted
5. Educational Attainment	.22	3	.98	Accepted	3.05	3	.50	Accepted
6. Religious Affiliation	.95	3	.90	Accepted	3.73	3	.30	Accepted
C. Family								
1. Marital Status	.11	1	.80	Accepted	.83	1	.50	Accepted
2. Place of Birth of Head	2.42	1	.20	Accepted	.59	1	.50	Accepted
3. Length of Residence in Grand Rapids	.58	2	.80	Accepted	10.52	2	.01	Rejected
4. Length of Residence at Present Address	2.85	2	.30	Accepted	14.03	2	.001	Rejected

*For the East Core Area the chi-square test consisted of running the sum of Invasion-Infiltration $Y_1 + Y_2 + Y_3$ against the sum of Concentration-Consolidation $X_1 + X_2 + X_3$; for the Middle-West Core Area the test was the sum of Invasion-Infiltration $Z_1 + Z_2 + Z_3$ against the sum of Concentration-Consolidation $W_1 + W_2 + W_3$. Because of the limited amount of data the stage of invasion was combined to infiltration, consolidation to concentration to form two major divisions of stages of succession; invasion-infiltration and concentration-consolidation. Since proportion of Negro residents was the basis of classifying areas by stage of succession, with these two major divisions the significant break in proportion Negro therefore becomes "over or under 50% Negro." It was on this basis that the chi-square tests above were performed.)

THE CONCLUSION SEEMS TO SHOW THAT THE MODEL OF INVASION-SUCCESSION HAS HAD LITTLE INFLUENCE IN DEVELOPING THE ECOLOGICAL PATTERN OF VARIATION IN THIS NEGRO COMMUNITY. ON THE OTHER HAND, WHILE AT THE "STATUS AREA" LEVEL THE MODEL OF AREAL DIFFERENTIATION DID NOT HOLD UP, THE DATA CLEARLY REVEAL THAT AT THE "CORE AREA" LEVEL, AREAL DIFFERENTIATION WAS VALIDATED. THUS, IT APPEARS THAT THE SIGNIFICANT ECOLOGICAL DIFFERENTIATION IN THIS NEGRO COMMUNITY IS BETWEEN CORE AREAS.

AS A FINAL CHECK ON THIS CONCLUSION, IT WAS DECIDED TO TEST THE VARIABLE DISTRIBUTIONS BETWEEN SIMILAR STAGES OF SUCCESSION OF THE TWO CORE AREAS. FIRST, A TEST WAS RUN FOR ALL SEVENTEEN VARIABLES BETWEEN THE INVASION-INFILTRATION AREAS OF THE EAST CORE AREA AND THE INVASION-INFILTRATION AREAS OF THE MIDDLE-WEST CORE AREA. THE RESULTS OF THESE TESTS ARE GIVEN IN TABLE 26. FOR THE SOCIO-ECONOMIC VARIABLES, ONLY THE EDUCATIONAL VARIABLE REJECTED THE NULL HYPOTHESIS. FOR HOUSING VARIABLES, ALL REJECTED THE NULL HYPOTHESIS EXCEPT "HOUSE VALUE" AND "MONTHLY RENT." ALL THE FAMILY VARIABLES REJECTED THE NULL, EXCEPT "MARITAL STATUS." ALTHOUGH SOCIO-ECONOMIC VARIABLES DID NOT SUPPORT THE ABOVE CONCLUSION, THE HOUSING AND FAMILY VARIABLES DID REVEAL A DIFFERENCE BETWEEN THE CORE AREAS WHEN CONTRASTING THEIR INVASION-INFILTRATION AREAS.

SECOND, A TEST WAS RUN FOR ALL VARIABLES BETWEEN THE CONCENTRATION-CONSOLIDATION AREAS OF THE EAST CORE AREA AND THOSE OF THE MIDDLE-WEST CORE AREA. THE HIGHLY CONCENTRATED NEGRO AREAS WHICH OCCUR CLOSE TO

TABLE XXVI. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN INVASION-INFILTRATION STAGES OF THE EAST AND MIDDLE-WEST CORE AREAS AND BETWEEN CONCENTRATION-CONSOLIDATION STAGES OF THE EAST AND MIDDLE-WEST CORE AREAS BY HOUSING, SOCIO-ECONOMIC AND FAMILY VARIABLES.*

Variables	Invasion-Infiltration				Concentration-Consolidation			
	x^2	D.F.	P<	H_0	x^2	D.F.	P<	H_0
A. Housing								
1. Rooms per Dwelling Unit	11.44	3	.01	Rejected	17.52	3	.001	Rejected
2. Persons per Dwelling Unit	7.95	3	.05	Rejected	4.72	3	.20	Accepted
3. Type of Structure	4.56	1	.05	Rejected	7.84	1	.01	Rejected
4. Condition of Structure	17.57	2	.001	Rejected	95.30	2	.001	Rejected
5. Tenure	3.98	1	.05	Rejected	11.53	1	.001	Rejected
6. House Value	5.25	2	.10	Accepted	6.73	2	.05	Rejected
7. Monthly Rent	1.29	1	.30	Accepted	.18	1	.70	Accepted
B. Socio-Economic								
1. Employment Status of Male Head	1.22	1	.30	Accepted	2.04	1	.20	Accepted
2. Occupation	3.48	3	.50	Accepted	8.34	3	.05	Rejected
3. Employment Status of Wife	.01	1	.95	Accepted	1.83	1	.20	Accepted
4. Annual Family Income	1.25	2	.70	Accepted	8.29	2	.02	Rejected
5. Educational Attainment	8.14	3	.05	Rejected	26.00	3	.001	Rejected
6. Religious Affiliation	3.85	3	.30	Accepted	5.29	3	.20	Accepted
C. Family								
1. Marital Status	.01	1	.95	Accepted	5.48	1	.02	Rejected
2. Place of Birth of Head	14.53	1	.001	Rejected	30.31	1	.001	Rejected
3. Length of Residence in Grand Rapids	16.57	2	.001	Rejected	6.54	2	.05	Rejected
4. Length of Residence at Present Address	9.04	2	.02	Rejected	1.50	2	.50	Accepted

*(The test of difference between Invasion-Infiltration stages consisted of running the sum of Invasion-Infiltration $Z_1 + Z_2 + Z_3$ of the Middle-West Core Area against the sum of Invasion-Infiltration $Y_1 + Y_2 + Y_3$ of the East Core Area. The test of difference between Concentration-Consolidation consisted of running the sum of Concentration-Consolidation $W_1 + W_2 + W_3$ of the Middle-West Core Area against the sum of Concentration-Consolidation $X_1 + X_2 + X_3$ of the East Core Area.)

THE CONCENTRATION AREA OF THE CORES DID REVEAL A CLEARER SUPPORT OF THE EXISTENCE OF AREAL DIFFERENTIATION AT THE CORE AREA LEVEL. OF THE SOCIO-ECONOMIC VARIABLES, THE THREE MAJOR INDICES OF SOCIAL STATUS (OCCUPATION, INCOME, AND EDUCATION) REJECTED THE NULL HYPOTHESIS. ALL THE HOUSING VARIABLES DID THE SAME EXCEPT "PERSONS PER DWELLING UNIT" AND "MONTHLY RENT." ALL THE FAMILY VARIABLES, WHEN TESTED, ALSO REJECTED THE NULL HYPOTHESIS, EXCEPT "LENGTH OF RESIDENCE AT PRESENT ADDRESS."

IN CONCLUSION, THIS CHECK IN WHICH CORE AREA WAS USED AS THE CONTROLLING FACTOR, REVEALED THAT THE CONCLUSION THAT AREAL DIFFERENTIATION AT THE CORE AREA LEVEL IS MORE INFLUENTIAL IN THE DEVELOPMENT OF THE ECOLOGICAL VARIATION PATTERN FOR THIS NEGRO COMMUNITY IS HIGHLY SUBSTANTIATED.

BECAUSE OUR ECOLOGICAL MODELS, AREAL DIFFERENTIATION AND INVASION-SUCCESSION, ARE VERY DEPENDENT UPON THE FACTOR OF SOCIAL STATUS, IT WOULD PERHAPS BE ILLUMINATING TO SELECT OUT THE THREE MAJOR INDICES OF SOCIAL STATUS AND SUMMARIZE THE RESULTS OF THE CHI-SQUARE TESTS OF SIGNIFICANCE RUN ON THEM. TABLE 27 PRESENTS THE RELEVANT DATA.

IN THE ORDER OF PROCEDURE UTILIZED IN TESTING ALL SEVENTEEN VARIABLES, THE THREE VARIABLES OF OCCUPATION, INCOME, AND EDUCATIONAL ATTAINMENT WERE FIRST TESTED BY STATUS AREA. STATUS AREAS AT THE TOTAL COMMUNITY LEVEL REVEALED A REJECTION OF THE NULL HYPOTHESIS THAT NO SIGNIFICANT DIFFERENCE EXISTED AMONG THE VARIABLES. THUS,

TABLE XXVII. TABLE OF CHI-SQUARE LEVELS OF SIGNIFICANCE FOR SELECTED SOCIO-ECONOMIC VARIABLES BY VARIOUS AREA CATEGORIES OF ECOLOGICAL MODELS.

Categories Tested	Socio-Economic Variables		
	Occupation	Income	Education
All Status Areas (6)	.001	.01	.001
All Stages of Succession (4)	.05	.01	.001
Both Core Areas (2)	.02	.01	.001
Status Areas in East Core (3)	.01	N.S.	N.S.
Status Areas in M-W Core (3)	N.S.	N.S.	.05
Stages in East Core (4)	N.S.	N.S.	N.S.
Stages in M-W Core (4)	N.S.	N.S.	N.S.
Invasion-Infiltration Between Cores (2)	N.S.	N.S.	.05
Concentration-Consolidation Between Cores (2)	.05	.02	.001

THE AREAL DIFFERENTIATION MODEL SEEMED TO BE SUBSTANTIATED. HOWEVER, TESTING THE SAME THREE VARIABLES BY STAGE OF SUCCESSION AT THE COMMUNITY LEVEL REVEALED ALSO A REJECTION OF THE NULL HYPOTHESIS AND, THUS, INVASION-SUCCESSION WAS SEEMINGLY SUBSTANTIATED AS AN EFFECTIVE ECOLOGICAL PROCESS IN THE TOTAL NEGRO COMMUNITY. LIKEWISE, WHEN THE SAME THREE VARIABLES WERE TESTED AT THE CORE AREA LEVEL, THE NULL HYPOTHESIS WAS AGAIN REJECTED.

BY CONTROLLING THE STATUS AREAS AND STAGES OF SUCCESSION WITH THE CORE AREAS, IT APPEARS THAT THE ECOLOGICAL VARIATIONS PRODUCED BY STATUS AREAS AND STAGES OF SUCCESSION WERE ACTUALLY A RESULT OF THE VARIATIONS BETWEEN THE LARGER CORE AREAS. THIS IS FURTHER SUBSTANTIATED WHEN INVASION-INFILTRATION AREAS ARE TESTED FOR THE NULL HYPOTHESIS AS WELL AS THE CONCENTRATION-CONSOLIDATION AREAS OF EACH CORE AREA. IN THE LATTER CHECK THE CONCLUSION TO BE MADE IS THAT THE ECOLOGICAL VARIATION EXISTENT BETWEEN THE EAST CORE AREA AND THE MIDDLE-WEST CORE AREA FALLS MAINLY IN THE CONCENTRATED AREAS OF THE CORE AREAS THEMSELVES.

SUMMARY OF FINDINGS

1. ECOLOGICAL VARIATIONS EXIST AMONG STATUS AREAS IN THE NEGRO COMMUNITY-AT-LARGE; ECOLOGICAL VARIATIONS OCCUR ALSO AMONG STAGES OF SUCCESSION IN THE NEGRO COMMUNITY-AT-LARGE.

2. WHEN "CORE AREA" IS USED AS A CONTROL VARIABLE, ECOLOGICAL VARIATION AT THE CORE AREA LEVEL EXPLAINS AWAY THE ECOLOGICAL VARIATIONS

EXISTING AMONG STATUS AREAS AND STAGES OF SUCCESSION AND, THUS, IS THE MOST SIGNIFICANT OF ALL THE ECOLOGICAL VARIATIONS. AREAL DIFFERENTIATION AT THE CORE AREA LEVEL, THEREFORE, IS THE MOST INFLUENTIAL PROCESS IN THE DEVELOPMENT OF ECOLOGICAL VARIATION PATTERNS IN THE NEGRO COMMUNITY.

3. ECOLOGICAL VARIATION IS MORE APPARENT BETWEEN CONCENTRATED AREAS OF THE CORE AREAS THEMSELVES THAN BETWEEN THE FRINGE OR INVASION AREAS OF THE CORE AREAS OF THE NEGRO COMMUNITY.

HYPOTHESIS #2: THE GRADIENT PATTERN OF ECOLOGICAL VARIATION.

THE QUESTION TO BE ANSWERED AT THIS POINT IS WHETHER THERE EXISTS A CLEAR-CUT GRADIENT PATTERN OF STATUS IN THE ECOLOGICAL VARIATION PATTERNS OF THE NEGRO COMMUNITY UNDER STUDY. BY "GRADIENT PATTERN" IS IMPLIED THE ABILITY TO RANK AREAS BY SELECTED INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS OF THEIR RESPECTIVE POPULATIONS. GRADIENT IN THIS THESIS FURTHER IMPLIES A CONSISTENCY OF THE RANK ORDER OF THE AREAS UNDER CONSIDERATION WITH REGARD TO ALL THE INDICES SUBSUMED UNDER THE THREE HEADINGS OF HOUSING, SOCIO-ECONOMIC, AND FAMILY AND A STABILITY OF THIS RANK ORDER OVER TIME. THUS, REFERRING TO TABLE 21, IF THE INVASION-SUCCESSION MODEL IS AT ALL OPERATIVE IN THE DEVELOPMENT OF THE ECOLOGICAL PATTERN IN THE NEGRO COMMUNITY, FOR ALL THE SELECTED CHARACTERISTICS, INVASION AREAS SHOULD CONSISTENTLY REVEAL THE HIGHEST RANK WITH REGARD TO STATUS AND CONCENTRATION AREAS SHOULD CONSISTENTLY SHOW THE LOWEST RANK. A RANK

ORDER OF ALL THE INDICES, THEN, SHOULD SHOW THE SAME PATTERN. IF THE AREAL DIFFERENTIATION MODEL IS MORE INFLUENTIAL IN THE DEVELOPMENT OF THE ECOLOGICAL VARIATIONS WITHIN THE NEGRO COMMUNITY, A RANK ORDER OF THE SELECTED INDICES SHOULD ALWAYS SHOW THE SAME STATUS AREAS WITH HIGHER RANK OR LOWER RANK. THE RANK ORDER OF STATUS AREAS, THEN, SHOULD REMAIN CONSISTENT, I.E., EVERY STATUS AREA CONSIDERED SHOULD MAINTAIN THE SAME RANK WITH RESPECT TO ALL THE CHARACTERISTICS CONSIDERED, AND THUS A GRADIENT PATTERN SHOULD BE OBSERVABLE. THE STABILITY FACTOR WHEN CONSIDERED SHOULD SHOW THAT OVER TIME THE SAME RANK ORDER OF THE STATUS AREAS IS MAINTAINED. WITH THIS IN MIND LET OUR ATTENTION BE TURNED AT THIS POINT TO THE INVESTIGATION OF THE DATA TO DETERMINE THE VALIDITY OF A GRADIENT PATTERN FOR EITHER MODEL.

FINDINGS

FROM THE TESTING OF THE FIRST HYPOTHESIS IT HAS PREVIOUSLY BEEN ESTABLISHED THAT THE MOST SIGNIFICANT ECOLOGICAL VARIATION PATTERN EXISTS AT THE CORE AREA LEVEL. THIS FINDING WILL, THUS, PROVIDE THE STARTING POINT FOR THE INVESTIGATION OF THE SECOND HYPOTHESIS.

A LOOK AT TABLE 28 REVEALS A CLEAR SUBSTANTIATION OF THE GRADIENT PATTERN HYPOTHESIS. FOR ALMOST EVERY INDEX OF THE ORIGINAL SEVENTEEN CHARACTERISTICS, THE TABLE REVEALS A CONSISTENT RANK ORDER WITH THE EXCEPTION OF ONE, "PER CENT HOUSEHOLDS WITH WIFE EMPLOYED." A REASON FOR THIS CONTRADICTION IN THE CONSISTENCY OF THE RANK ORDER CAN BE SUGGESTED AT THIS POINT. THE RELATIONSHIP OF "WIFE EMPLOYED" TO SOCIAL

STATUS OF A FAMILY MAY NOT BE SIMPLY UNILINEAR. OUR EXPECTATIONS WOULD SUGGEST THAT A LOW PROPORTION OF WIVES EMPLOYED SHOULD CORRELATE WITH HIGH STATUS AND A HIGH PROPORTION WITH LOW STATUS. THIS EXPECTATION WAS BASED UPON THE BELIEF THAT WHEREVER THE WIFE IS EMPLOYED, THE REASON IS FREQUENTLY ONE OF ECONOMIC NECESSITY, DUE TO A LOW INCOME OF THE MALE HEAD OF THE HOUSEHOLD. EQUALLY VALID, AS THE CASE NOW SEEMS, IS THE RELATION OF BOTH HUSBAND AND WIFE EMPLOYED TO HIGHER SOCIAL STATUS RESULTING FROM A HIGHER TOTAL FAMILY INCOME THAN MANY NEGRO FAMILIES ARE CAPABLE OF OBTAINING. THE INVERTED RANK ORDER OF THE INDEX IN TABLE 28, THEREFORE, MAY HAVE RESULTED BECAUSE OF THE LATTER EXPLANATION RATHER THAN FROM THE INITIALLY PRESENTED EXPECTATION.

NEVERTHELESS, THE PATTERN IN TABLE 28 IS QUITE CLEAR THAT THE EAST CORE AREA IS THE HIGHER STATUS AREA OF THE TWO CORE AREAS CONSIDERED. SINCE THE CRITERION OF CONSISTENCY OF RANK ORDER HAS BEEN ESTABLISHED, A CHECK FOR STABILITY OF THIS RANK ORDER PATTERN IS NEEDED. TABLE 29 ATTEMPTS TO VALIDATE THE EXISTENCE OF A STABILITY FACTOR REGARDING THE TWO CORE AREAS. IT SHOULD BE NOTED THAT THE TABLE ONLY INCLUDES SELECTED HOUSING CHARACTERISTICS AND THIS OMITS A CONSIDERATION OF SOCIO-ECONOMIC AND FAMILY CHARACTERISTICS. THE SELECTED HOUSING CHARACTERISTICS INCLUDED IN TABLE 29, HOWEVER, WERE CHOSEN BECAUSE THEY CLOSELY PARALLEL THE FOUR HOUSING CHARACTERISTICS INCLUDED IN THE ORIGINAL SET OF SEVENTEEN VARIABLES USED PREVIOUSLY IN THIS CHAPTER. THE COMPARABILITY OF THE TWO SETS OF VARIABLES, ONE OBTAINED FROM THE SURVEY IN

TABLE XXVIII. TABLE OF INDICES AND RANK ORDER OF INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY CORE AREA.

	Variables	Index		Rank	
		East Core	Middle-West	East Core	Middle-West
	Housing				
1.	Mean Number of Rooms per Dwelling Unit	6.17	5.44	1	2
2.	Mean Number of Persons per Dwelling Unit	4.28	4.90	1	2
3.	Per cent Single-Family Structures	69.0	51.0	1	2
4.	Per cent Poor or Dilapidated Structures	8.7	39.5	1	2
5.	Per cent Homeowners	79.5	60.3	1	2
6.	Mean House Value	$8,890	$7,990	1	2
7.	Mean Monthly Rent	$56.53	$53.56	1	2
	Socio-Economic				
1.	Per cent Male Head Employed	70.3	59.3	1	2
2.	Per cent White Collar Workers	12.6	5.0	1	2
3.	Per cent Wife Employed	33.3	29.8	2	1
4.	Mean Annual Family Income	$3,191	$2,676	1	2
5.	Mean Grade Attained	10.0	8.2	1	2
6.	Per cent Episcopalian	8.8	1.0	1	2
	Family				
1.	Per cent Broken Home	6.7	12.7	1	2
2.	Per cent Head Born in South	57.2	85.2	1	2
3.	Mean Length of Residence in Grand Rapids	19.1	13.2	1	2
4.	Mean Length of Residence at Present Address	6.5	5.1	1	2

TABLE XXIX. TABLE OF INDICES AND RANK ORDER OF INDICES OF SELECTED HOUSING CHARACTERISTICS BY CORE AREA FOR 1940 AND 1950.*

Index of Housing Characteristic	1940 East Core Area	1940 Middle-West Core Area	1950 East Core Area	1950 Middle-West Core Area
Per cent occupied dwelling units owner occupied	50.3	28.9	60.3	39.4
Per cent occupied dwelling units with 1.51 or more persons per room	0.8	3.3	1.4	4.8
Per cent occupied dwelling units needing repairs (dilapidated) or no private bath	21.7	29.4	10.0	42.0
Average Monthly Rent	$21.21	$15.13	$33.69	$30.51

	Rank Order of Indices 1940 East	1940 Middle-West	1950 East	1950 Middle-West
Owner Occupied	1	2	1	2
1.51 or more persons per room	1	2	1	2
Need major repairs	1	2	1	2
Average Monthly Rent	1	2	1	2

*Source: Block Statistics of Grand Rapids, 1940 and 1950.

1959 AND THE OTHER OBTAINED FROM THE CENSUS BUREAU'S BLOCK STATISTICS FOR 1950 AND 1940, IS SUGGESTED IN THE FOLLOWING TABLE:

INDICES BASED UPON BLOCK STATISTICS CATEGORIES OF 1940 & 1950	INDICES BASED UPON HOUSING CHARACTERISTICS OF 1959
1. PER CENT OF TOTAL OCCUPIED DWELLING UNITS OWNER OCCUPIED. (INDEX OF TENURE)	1. PER CENT HOMEOWNERS. (INDEX OF TENURE).
2. PER CENT OF TOTAL OCCUPIED DWELLING UNITS WITH 1.51 OR MORE PERSONS PER ROOM. (INDEX OF OVERCROWDING)	2. MEAN NUMBER OF PERSONS PER DWELLING UNIT. (INDEX OF OVERCROWDING)
3. PER CENT TOTAL OCCUPIED DWELLING UNITS NEEDING MAJOR REPAIRS (DILAPIDATED) OR NO PRIVATE BATH (INDEX OF CONDITION OF STRUCTURE)	3. PER CENT POOR OR DILAPIDATED STRUCTURES. (INDEX OF CONDITION OF STRUCTURE.)
4. AVERAGE MONTHLY CONTRACT RENT. (INDEX OF RENTAL VALUE)	4. MEAN MONTHLY RENT. (INDEX OF RENTAL VALUE)

SINCE THE INDICES USED TO REPRESENT THE STATUS OF THE CORE AREAS FOR 1940 AND 1950 SEEM TO BE COMPARABLE TO THE INDICES USED FOR 1959, IT CAN THEN BE ESTABLISHED BY A LOOK AT TABLE 29 THAT THE RELATIVE STATUS OF THE TWO CORE AREAS HAS REMAINED THE SAME SINCE 1940. THIS, THEN, PARTIALLY SUBSTANTIATES THE STABILITY OF THE GRADIENT OR RANK ORDER PATTERN AT THE CORE AREA LEVEL OVER TIME.

AN ADDITIONAL TEST OF THE CONSISTENCY OF THE GRADIENT PATTERN FOR THE TWO MAJOR CORE AREAS IS OBTAINED BY USING "STAGES OF SUCCESSION" AS A CONTROL VARIABLE. TABLES 30A AND 30B SHOW THE INDICES AND THE RANK ORDER OF THE INDICES OF ALL SEVENTEEN CHARACTERISTICS USED IN ESTABLISHING A GRADIENT PATTERN OF STATUS. THE COMPARISONS OF RESIDENTIAL STATUS IS BETWEEN INVASION-INFILTRATION STAGES WITHIN

TABLE XXX-A. TABLE OF INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS FOR EAST CORE AREA AND MIDDLE-WEST CORE AREA BY STAGE OF SUCCESSION.

Indices for Characteristics	Invasion-Infiltration Stages		Concentration-Consolidation	
	East Core Area	Middle-West Core Area	East Core Area	Middle-West Core Area
Housing				
1. Mean Number of Rooms per Dwelling Unit	6.5	5.5	6.0	5.4
2. Mean Number of Persons Per Dwelling Unit	4.2	4.6	4.3	4.7
3. Per cent Single-Family Structures	77.0	56.7	64.5	50.4
4. Per cent Poor or dilapidated Structures	9.8	41.4	8.0	39.3
5. Per cent Homeowners	86.2	70.0	75.7	59.3
6. Mean House Value	$8,834	$7,616	$8,923	$8.039
7. Mean Monthly Rent	$59.18	$52.20	$55.07	$53.94
Socio-Economic				
1. Per cent Male Head Employed	65.5	70.0	73.0	58.1
2. Per cent White Collar Workers	12.3	0.0	12.6	5.7
3. Per cent Wife Employed	27.6	26.7	36.7	30.2
4. Mean Annual Family Income	$3,329	$2,897	$3,113	$2,651
5. Mean Grade Attained	9.9	8.5	10.1	8.2
6. Per cent Episcopalian	10.3	3.3	7.9	0.7
Family				
1. Per cent Broken Home	6.9	10.0	6.6	13.0
2. Per cent Head Born in South	50.6	90.0	60.9	84.8
3. Mean Length of Residence in Grand Rapids	20.3	8.6	18.4	13.8
4. Mean Length of Residence at Present Address	6.2	2.1	6.7	5.5

TABLE XXX-B. TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS FOR EAST CORE AREA AND MIDDLE-WEST CORE AREA BY STAGE OF SUCCESSION.

Indices for Characteristics	Invasion-Infiltration Stages		Stages of Concentration-Consolidation	
	East Core Area	Middle-West Core Area	East Core Area	Middle-West Core Area
Housing				
1. Mean Number of Rooms per Dwelling Unit	1	2	1	2
2. Mean Number of Persons per Dwelling Units	1	2	1	2
3. Per cent Single-Family Structures	1	2	1	2
4. Per cent Poor or Dilapidated Structures	1	2	1	2
5. Per cent Homeowners	1	2	1	2
6. Mean House Value	1	2	1	2
7. Mean Monthly Rent	1	2	1	2
Socio-Economic				
1. Per cent Male Head Employed	2	1	1	2
2. Per cent White Collar Workers	1	2	1	2
3. Per cent Wife Employed	2	1	2	1
4. Mean Annual Family Income	1	2	1	2
5. Mean Grade Attained	1	2	1	2
6. Per cent Episcopalian	1	2	1	2
Family				
1. Per cent Broken Home	1	2	1	2
2. Per cent Head Born in South	1	2	1	2
3. Mean Length of Residence in Grand Rapids	1	2	1	2
4. Mean Length of Residence at Present Address	1	2	1	2

THE TWO CORE AREAS AND THEN BETWEEN THE CONCENTRATION-CONSOLIDATION STAGES FOR THE TWO CORE AREAS. AGAIN, THE GRADIENT PATTERN HOLDS TRUE WITH ONLY A FEW EXCEPTIONS. THE PROBLEM WITH THE INDEX OF "PER CENT OF WIFE EMPLOYED" HAS ALREADY BEEN DISCUSSED. THE ONLY EXPLANATION FOR THE CONTRADICTION OF THE INDEX "PER CENT MALE HEAD EMPLOYED" SEEMS TO BE THAT EMPLOYMENT IS MORE OFTEN DEPENDENT UPON COMMUNITY WIDE FACTORS RATHER THAN BEING WHOLLY INDICATIVE OF STATUS. NEVERTHELESS, TABLES 30A AND 30B DO CLEARLY INDICATE THE EXISTENCE OF A GRADIENT PATTERN AT THE CORE AREA LEVEL.

IT HAS PREVIOUSLY BEEN ESTABLISHED IN THE SECTION OF THIS CHAPTER DEALING WITH THE FIRST HYPOTHESIS THAT THERE EXISTED NO SIGNIFICANT VARIATION AMONG THE STATUS AREAS AND, LIKEWISE, THE STAGES OF SUCCESSION WHEN THE CORE AREA IN WHICH THEY ARE LOCATED WAS HELD CONSTANT. HOWEVER, FOR THE FURTHER ELABORATION OF THE GRADIENT PATTERN IN THIS NEGRO COMMUNITY BEYOND THE LEVEL OF THE CORE AREA, IT IS NECESSARY TO CONSIDER THE POSSIBILITY OF A GRADIENT PATTERN RESULTING FROM THE OPERATION OF AREAL DIFFERENTIATION OR INVASION-SUCCESSION WITHIN EITHER OR BOTH OF THE CORE AREAS. AT THIS POINT, THEN, THE INVESTIGATION MOVES TO A CONSIDERATION OF THE INTERNAL ECOLOGICAL PATTERN OF WHAT HAS BEEN DELINEATED AS THE CORE AREAS.

TABLE 31 LISTS THE RANK ORDER OF THE INDICES OF THE SEVENTEEN CHARACTERISTICS WITH WHICH WE HAVE BEEN DEALING. THIS TABLE GIVES THE RELATIVE RANKS OF THOSE STATUS AREAS EXISTING ONLY WITHIN THEIR

TABLE XXXI. TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STATUS AREA WITHIN EAST CORE AREA AND WITHIN MIDDLE-WEST CORE AREA.*

Indices of Characteristics	Status Areas in East Core			Status Areas in Middle-West Core		
	1A	2	3	1B	4	5
Housing						
1. Mean Number of Rooms per Dwelling Unit	2.5	1	2.5	3	2	1
2. Mean Number of Persons per Dwelling Unit	1	2	3	1	2	3
3. Per cent Single-Family Structures	3	1	2	3	1	2
4. Per cent Poor or dilapidated structures	2	1	3	1	2	3
5. Per cent Homeowners	2.5	1	2.5	3	2	1
6. Mean House Value	1	3	2	1	2	3
7. Mean Monthly Rent	1	2	3	1	2	3
Socio-Economic						
1. Per cent Male Head Employed	2	1	3	3	1	2
2. Per cent White Collar Workers	1	2	3	1	3	2
3. Per cent Wife Employed	3	2	1	2	3	1
4. Mean Annual Family Income	1	2	3	1	3	2
5. Mean Grade Attained	1	3	2	1	3	2
6. Per cent Episcopalian	3	2	1	1	3	2
Family						
1. Per cent Broken Home	3	1	2	3	1	2
2. Per cent Head Born in South	2	3	1	1	2	3
3. Length of Residence in Grand Rapids (Mean)	2	3	1	2	1	3
4. Length of Residence at Present Address (Mean)	3	2	1	3	1	2

*For source of indices upon which the ranks in this table are based, see Table 53 in Appendix.

RESPECTIVE CORE AREAS. TABLE 32 PROVIDES THE SAME INFORMATION BUT BY STAGES OF SUCCESSION RATHER THAN STATUS AREAS. AT FIRST GLANCE NEITHER OF THE TABLES GIVES CLEAR AND CONCLUSIVE EVIDENCE THAT A GRADIENT PATTERN EXISTS WITHIN EITHER OF THE TWO CORE AREAS AS A RESULT OF THE OPERATION OF AREAL DIFFERENTIATION OR INVASION-SUCCESSION. RATHER THAN DISMISS THE EVIDENCE AND DRAW CONCLUSIONS AT THIS POINT, A STATISTICAL TEST WILL PROVIDE ADDITIONAL EVIDENCE UPON WHICH TO BASE ANY CONCLUSIONS.

THE FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE WAS RUN ON BOTH TABLES FOR ALL RANKS AND ALSO FOR RANKS SUBSUMED UNDER EACH SECTION HEADING, I.E., HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS. THE FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE TESTS THE NULL HYPOTHESIS THAT THE DIFFERENT COLUMNS OF RANKS (SAMPLES) CAME FROM THE SAME POPULATION. IF THE NULL HYPOTHESIS IS SUPPORTED (THAT THE COLUMNS OF RANKS CAME FROM THE SAME POPULATION), THEN THE DISTRIBUTION OF RANKS IN EACH COLUMN WOULD BE A MATTER OF CHANCE AND THUS IT WOULD BE EXPECTED THAT THE RANKS OF 1, 2, 3, AND 4 APPEAR IN ALL COLUMNS WITH ABOUT EQUAL FREQUENCY. IF THE RANK ORDERS FALL INTO A CONSISTENT PATTERN TO SOME EXTENT, HOWEVER, THE NULL HYPOTHESIS WILL BE PROVEN FALSE. BY APPLYING THIS TEST TO TABLES 31 AND 32 THE NULL HYPOTHESIS THAT THE RANK DISTRIBUTIONS ARE DUE TO CHANCE CAN BE TESTED.

TABLE 33, WHICH LISTS THE RESULTS OF THIS STATISTICAL TEST FOR STATUS AREAS WITHIN THE SAME CORE AREA, QUITE CLEARLY REVEALS THAT

TABLE XXXII. TABLE OF RANK ORDER OF INDICES FOR HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.*

Indices of Characteristics	East Core Area				Middle-West Core Area			
	Invasion	Infiltration	Consolidation	Concentration	Invasion	Infiltration	Consolidation	Concentration
Housing								
1. Mean Number of Rooms per Dwelling Unit	2	1	4	3	1	2	3	4
2. Mean Number of Persons per Dwelling Unit	4	1	2	3	2	3	4	1
3. Per cent Single-Family Structures	1	2	4	3	1	2	4	3
4. Per cent Poor or Dilapidated structures	4	2	3	1	1	4	2	3
5. Per cent Homeowners	1	2	4	3	1	2	4	3
6. Mean House Value	2	3	1	4	2	4	1	3
7. Mean Monthly Rent	4	1	3	2	1	4	2	3
Socio-Economic								
1. Per cent Male Head Employed	4	3	1	2	1	2	3	4
2. Per cent White Collar Workers	1	3	2	4	3.5	3.5	1	2
3. Per cent Wife Employed	1	3	4	2	1	3	2	4
4. Mean Annual Family Income	1	2	3	4	1	3	2	4
5. Mean Grade Attained	2	3	1	4	1	3	2	4
6. Per cent Episcopalian	3	2	4	1	1	4	2	3
Family								
1. Per cent Broken Home	2	3	4	1	4	2	1	3
2. Per cent Head Born in South	1	3	4	2	1	4	2	3
3. Mean Length of Residence in Gr. Rapids	3	2	4	1	3	4	2	1
4. Mean Length of Residence at Present Address	1	3	2	4	2	1	3	4

*For source of actual indices upon which this table is based, see Table 55 in Appendix.

TABLE XXXIII. TABLE OF FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE BY RANK OF ALL INDICES AND INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STATUS AREAS WITHIN THE EAST CORE AREA AND MIDDLE-WEST CORE AREA.*

INDICES	x_R^2	D.F.	P<	H_0
STATUS AREAS IN EAST CORE AREA				
ALL INDICES	0.5	2	.80	ACCEPTED
HOUSING INDICES	3.7	2	.24	ACCEPTED
SOCIO-ECONOMIC INDICES	0.3	2	.96	ACCEPTED
FAMILY INDICES	3.5	2	.27	ACCEPTED
STATUS AREAS IN MIDDLE-WEST CORE AREA				
ALL INDICES	1.1	2	.70	ACCEPTED
HOUSING INDICES	0.9	2	.77	ACCEPTED
SOCIO-ECONOMIC INDICES	4.3	2	.14	ACCEPTED
FAMILY INDICES	3.5	2	.27	ACCEPTED

*THE STATISTICAL FORMULA FOR THE FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE IS AS FOLLOWS:

$$x_R^2 = \frac{12}{NK(K+1)} \sum_{j=1}^{K} (R_J)^2 - 3N(K+1)$$

WHERE N =NUMBER OF ROWS
K =NUMBER OF COLUMNS
R_J=SUM OF RANKS IN JTH COLUMN

SOURCE: SIEGEL, OP. CIT., P. 168.

TABLE XXXIV. TABLE OF FRIEDMAN TWO-WAY ANALYSIS OF VARIANCE BY RANK OF ALL INDICES AND INDICES OF HOUSING, SOCIO-ECONOMIC, AND FAMILY CHARACTERISTICS BY STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.

INDICES	x_R^2	D.F.	P<	H_0
STAGES OF SUCCESSION WITHIN EAST CORE AREA				
ALL INDICES	3.6	3	.50	ACCEPTED
HOUSING INDICES	3.9	3	.30	ACCEPTED
SOCIO-ECONOMIC INDICES	1.4	3	.80	ACCEPTED
FAMILY INDICES	4.5	3	.24	ACCEPTED
STAGES OF SUCCESSION WITHIN MIDDLE-WEST CORE AREA				
ALL INDICES	13.6	3	.01	REJECTED
HOUSING INDICES	8.3	3	.05	REJECTED
SOCIO-ECONOMIC INDICES	10.0	3	.02	REJECTED
FAMILY INDICES	0.9	3	.90	ACCEPTED

THERE IS NO CONSISTENT GRADIENT OR RANK ORDER PATTERN OF STATUS AREAS IN EITHER THE EAST CORE AREA OR THE MIDDLE-WEST CORE AREA. IN FACT, UPON TESTING THE SUBGROUPS OF RANKS, I.E., HOUSING, SOCIO-ECONOMIC, AND FAMILY, FOR EACH CORE AREA IN EVERY CASE THE NULL HYPOTHESIS IS SUPPORTED.

TABLE 34 SHOWS THE RESULTS OF THE SAME TEST PERFORMED AMONG STAGES OF SUCCESSION WITH THE CORE AREA HELD CONSTANT. WITHIN THE EAST CORE AREA FOR ALL INDICES AND THE THREE SUB-CATEGORIES OF INDICES, THE NULL HYPOTHESIS IS SUPPORTED. THE RESULTS FOR THE MIDDLE-WEST CORE AREA, HOWEVER, REVEAL THAT FOR ALL THE INDICES AND THE SUBGROUPS OF HOUSING AND SOCIO-ECONOMIC CHARACTERISTICS, THE NULL HYPOTHESIS IS REJECTED, THUS, SUGGESTING THAT THERE IS A PATTERN WITHIN THE RANK ORDERS NOT DUE TO CHANCE. HOWEVER, A LOOK AT THE RANK ORDERS OF THE DATA REVEALS THAT, ALTHOUGH THERE IS SOME SORT OF PATTERN, THE PATTERN THAT EXISTS IS NOT COMPARABLE TO THE PATTERN PREDICTED FOR RANKING THE RELATIVE STATUS OF THE STAGES OF SUCCESSION. THE FOLLOWING TABLE OF MEAN RANKS OF THE STAGE OF SUCCESSION WITHIN THE MIDDLE-WEST CORE AREA WILL EXPLAIN THE ACTUAL PATTERN OF RANKS.

TABLE XXXV. TABLE OF MEAN RANKS OF ALL INDICES AND HOUSING, SOCIO-ECONOMIC, AND FAMILY INDICES FOR STAGES OF SUCCESSION WITHIN MIDDLE-WEST CORE AREA.

	Stages of Succession			
Indices for Middle-West Core Area	Invasion	Infiltration	Consolidation	Concentration
All indices	1.6	3.0	2.4	3.1
Housing indices	1.3	3.0	2.9	2.9
Socio-economic indices	1.4	3.1	2.0	3.5
Family indices	2.5	2.8	2.0	2.3
Predicted indices	1.0	2.0	3.0	4.0

THE EXPECTED PATTERN OF RANK ORDER ACCORDING TO THE INVASION-SUCCESSION MODEL WOULD FIND "INVASION" AREAS WITH THE HIGHEST RANK (1), INFILTRATION AREAS NEXT (2), CONSOLIDATION AREAS THIRD (3), AND CONCENTRATION AREAS WITH THE LOWEST STATUS RANK (4). THE PATTERN SEEMS TO HOLD TRUE FOR INVASION AREAS ACCORDING TO TABLE 35 EXCEPT FOR FAMILY CHARACTERISTICS. HOWEVER, THE RANK POSITIONS OF INFILTRATION AND CONSOLIDATION STAGES SEEM TO BE REVERSED FROM THE EXPECTED ORDER. THUS, ALTHOUGH THE STATISTICAL TEST REJECTED THE NULL HYPOTHESIS, THE TABLE OF MEAN RANKS SUGGESTS THAT EVEN WITHIN THE MIDDLE-WEST CORE AREA THE EXPECTED RANK ORDER OR GRADIENT PATTERN IS NOT VALIDATED.

THE CONCLUSION AT THIS POINT, THEN, IS THAT NEITHER ECOLOGICAL MODEL, AREAL DIFFERENTIATION OR INVASION-SUCCESSION, SEEMS TO HAVE BEEN INFLUENTIAL IN THE DEVELOPMENT OF THE INTERNAL ECOLOGICAL VARIATION PATTERN WITHIN THE TWO CORE AREAS.

HOWEVER, BEFORE DISMISSING THIS CONCLUSION, A LOOK AT THE THREE MAJOR INDICES OF SOCIAL STATUS (OCCUPATION, INCOME, EDUCATION) MAY PROVIDE AN ADDITIONAL CHECK TO SUBSTANTIATE THIS CONCLUSION. THE TABLE ON THE FOLLOWING PAGE ABSTRACTS FROM TABLES 31 AND 32 THE RANK ORDER OF THESE THREE INDICES FOR STATUS AREAS AND STAGES OF SUCCESSION WITHIN THE TWO CORE AREAS.

TABLE XXXVI. TABLE OF RANK ORDER OF OCCUPATION, INCOME, AND EDUCATION INDICES FOR STATUS AREAS AND STAGES OF SUCCESSION WITHIN EAST CORE AREA AND MIDDLE-WEST CORE AREA.

	Status Areas in East Core Area			Status Areas in Middle-West Core Area		
Indices	1A	2	3	1B	4	5
Per cent White Collar Workers	1	2	3	1	3	2
Mean Annual Family Income	1	2	3	1	3	2
Mean Grade Attained	1	3	2	1	3	2

	Stages of Succession in East Core Area				Stages of Succession in Middle-West Core Area			
Indices	Inv.	Infil.	Cons.	Conc.	Inv.	Infil.	Cons.	Conc.
Per cent White Collar Workers	1	3	2	4	3.5	3.5	1	2
Mean Annual Family Income	1	2	3	4	1	3	2	4
Mean Grade Attained	2	3	1	4	1	3	2	4

Upon submitting these four groups of ranks to a Friedman two-way analysis of variance, the results show that only with regard to status areas in the Middle-West Core Area is the null hypothesis rejected. With respect to the three selected indices of social status, therefore, it may be stated that areal differentiation at the status area level is partially operative in the Middle-West Core Area. Although the statistical tests for the other rank distributions do suggest that a random factor is probably operative in producing the rank patterns, some observation may be made. In the East Core Area, status area 1A seems to be undoubtedly the area of highest status when measured on the basis of the three status indices. Status areas 2 and 3 are, therefore, rather comparable in their relative status ranking. The conclusion can be stated, therefore, that areal differentiation at the status area

LEVEL ONLY PARTIALLY ACCOUNTS FOR THE ECOLOGICAL VARIATION IN BOTH CORE AREAS.

WHILE TABLE 36 DOES NOT SHOW AS CLEAR A PATTERN FOR THE SUPPORT OF INVASION-SUCCESSION, A FEW COMMENTS ARE APPROPRIATE AT THIS POINT. IN BOTH CORE AREAS THE "INVASION" AND "CONCENTRATION" STAGES OF THE INVASION-SUCCESSION MODEL DO SEEM TO SHOW SOMEWHAT THE RELATIONSHIP THAT WAS PREDICTED AT THE OUTSET BY THE INVASION-SUCCESSION MODEL. THE INVASION STAGE REVEALS IN THE TABLE THE HIGHEST STATUS, EXCEPT FOR THE EDUCATION INDEX IN THE EAST CORE AREA AND THE OCCUPATION INDEX IN THE MIDDLE-WEST CORE AREA. THE CONCENTRATION STAGE IN THE EAST CORE AREA REVEALS CLEARLY THE LOWEST STATUS AND THE SAME IN THE MIDDLE-WEST CORE AREA WITH THE EXCEPTION OF THE OCCUPATION INDEX. THE "INFILTRATION" AND "CONSOLIDATION" STAGES REVEAL INTERMEDIATE STATUS, BUT NOT CONCLUSIVELY ACCORDING TO THE PREDICTED PATTERN PROPOSED BY THE INVASION-SUCCESSION MODEL. THUS, IT MAY ALSO BE CONCLUDED THAT INVASION-SUCCESSION ONLY PARTIALLY ACCOUNTS FOR THE DEVELOPMENT OF ECOLOGICAL PATTERNS WITHIN THE TWO CORE AREAS.

SUMMARY OF FINDINGS

1. A CONSISTENCY AND STABILITY OF A GRADIENT PATTERN IS EXISTENT IN THE NEGRO COMMUNITY AT THE CORE AREA LEVEL.

2. STATUS AREAS AND STAGES OF SUCCESSION DO NOT SHOW A CONSISTENT GRADIENT PATTERN OF ALL INDICES WHEN CORE AREA IS HELD CONSTANT, ACCORDING TO THE EXPECTED PATTERN PROPOSED BY THE AREAL DIFFERENTIATION AND INVASION-SUCCESSION MODELS OF ECOLOGICAL VARIATION.

3. Both areal differentiation and invasion-succession are partially but not conclusively operative in the development of the internal ecological variation patterns within the core areas of the Negro community.

Hypothesis #3: The Ecological Variation Pattern Resultant from Population.

The last point of investigation extends beyond the consideration of only Negro residents and ecological variation within the Negro community. The focus is here on the process of the replacement of white residents by Negro residents in areas contiguous and within the Negro community. Before proceeding further, however, a few problems will be discussed concerning the empirical testing of this hypothesis.

The process of population replacement operates in both areal differentiation and invasion-succession. Similar to the problems faced in determining the ecological variation pattern within the Negro community, the fact that replacement is a process suggests the need to view the area of focus over a period of time. This thesis only looks at the replacement process at one point in time and, therefore, only implications can be drawn from such a technique as to how the replacement process operates.

The assumption in this section with regard to replacement of a population is that those whites residing in blocks of Negro residence will eventually be replaced almost in entirety over a period of time by Negroes. Evidence has been presented in Chapter III of this thesis

IN SUPPORT OF THIS ASSUMPTION. THE EVIDENCE SEEMS TO SHOW THAT ONCE A BLOCK HAS BEEN INVADED THE PROBABILITY THAT IT WILL CONTINUE TO PASS INTO THE LATER STAGES OF INVASION-SUCCESSION IS VERY HIGH. THIS IS NOT TO SAY THAT REPLACEMENT DOES NOT OCCUR IN THE PROCESS OF AREAL DIFFERENTIATION. BOTH INVASION-SUCCESSION AND AREAL DIFFERENTIATION MAY OCCUR SIMULTANEOUSLY. THE PREVIOUS CONCLUSION HAS BEEN THAT THE RESULTING ECOLOGICAL VARIATION PATTERN IN THE NEGRO COMMUNITY SUGGESTS THAT AREAL DIFFERENTIATION SEEMS TO BE MORE INFLUENTIAL IN DEVELOPING THE EXISTING ECOLOGICAL PATTERN. THE DIAGRAM (FIGURE 6) OF THE TWO ECOLOGICAL MODELS ASSUMES THAT STAGES OF SUCCESSION ARE DISCERNIBLE WITHIN STATUS AREAS.

THE POINT OF THIS ARGUMENT, THEREFORE, IS TO ESTABLISH WHAT IS TO BE DEFINED AS THE "POPULATION BEING REPLACED" AND WHAT AS THE "REPLACING POPULATION." IN CONSIDERING THIS HYPOTHESIS THE "POPULATION BEING REPLACED" WILL BE THE WHITE RESIDENTS IN WHATEVER AREA IS BEING EXAMINED AND THE "REPLACING POPULATION" WILL BE THE NEGRO RESIDENTS IN THE SAME AREA. THUS, IF THE AREA OF CONCERN IS A CORE AREA, THE CONTRAST WILL BE BETWEEN THE NEGRO AND WHITE RESIDENTS IN THE ENTIRE CORE AREA. IF INVASION OR ANY OTHER STAGE OF SUCCESSION IS BEING EXAMINED, THOSE WHITES IN THE AREA SO CHARACTERIZED WILL BE CONSIDERED THE "REPLACED" POPULATION AND THOSE NEGROES IN THE SAME AREA WILL BE CONSIDERED THE "INVADING" OR "REPLACING" POPULATION. WITH THIS IN MIND THE ANALYSIS OF DATA RELATIVE TO THE THIRD HYPOTHESIS MAY BEGIN.

Findings

According to the areal differentiation model (see Figure 6) it was hypothesized that Negroes, the replacing population, and whites, the replaced population, would reveal similarities with regard to many of their ecological characteristics. This hypothesis is based on the factor of "areal stability," i.e., an area will continue to show relatively the same characteristics regardless of any change in its population over time. The model of invasion-succession, on the other hand, suggests that there is indeed a difference between the replacing population and the replaced population.

Since in the previous two hypotheses the operation of areal differentiation at the "core area" level has been supported as the more influential ecological process operative in the Negro community, this section of the analysis will likewise consider first the areal differentiation process to determine whether it can be validated with regard to population replacement. The model of areal differentiation has predicted little difference between Negroes and whites being replaced within the same residential area because of the phenomenon of "areal stability."

Table 37 lists the results of chi-square tests for significant difference between Negroes and whites being replaced within the East Core Area and also for the Middle-West Core Area. In almost all cases of the seventeen variables tested, the null hypothesis of no difference

TABLE XXXVII. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN NEGROES AND WHITES BEING REPLACED IN EAST CORE AREA AND MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.*

Variables	East Core Area				Middle-West Core Area			
	x^2	D.F.	P<	H_0	x^2	D.F.	P<	H_0
Housing								
1. Rooms per Dwelling Unit	13.39	4	.01	Rejected	5.05	4	.30	Accepted
2. Persons per Dwelling Unit	31.71	5	.001	Rejected	69.20	5	.001	Rejected
3. Type of structure	1.06	1	.50	Accepted	12.78	1	.001	Rejected
4. Condition of Structure	11.82	2	.01	Rejected	30.95	2	.001	Rejected
5. Tenure	3.03	1	.10	Accepted	12.17	1	.001	Rejected
6. House Value	20.74	3	.001	Rejected	2.23	3	.70	Accepted
7. Monthly Rent	12.79	2	.01	Rejected	9.39	2	.01	Rejected
Socio-Economic								
1. Employment Status of Male Head	11.28	1	.001	Rejected	12.58	1	.001	Rejected
2. Occupation	61.26	4	.001	Rejected	37.47	4	.001	Rejected
3. Employment Status of Wife	51.14	1	.001	Rejected	19.18	1	.001	Rejected
4. Annual Family Income	27.32	3	.001	Rejected	19.81	3	.001	Rejected
5. Educational Attainment	24.15	4	.001	Rejected	10.71	4	.05	Rejected
6. Religious Affiliation	--	--	--	--	--	--	--	--
Family								
1. Marital Status	10.05	2	.01	Rejected	7.65	2	.05	Rejected
2. Place of Birth of Head	207.76	2	.001	Rejected	288.18	2	.001	Rejected
3. Length of Residence in Grand Rapids	1.96	2	.50	Accepted	50.18	2	.001	Rejected
4. Length of Residence at Present Address	59.11	3	.001	Rejected	130.54	3	.001	Rejected

*(East Core Area = sum of whites vs. Negroes in Status Areas 1A, 2, 3; - Middle-West Core Area = whites vs. Negroes in Status Areas 1B, 4, 5.)

WAS REJECTED. IT IS INTERESTING THAT ALL THE SOCIO-ECONOMIC VARIABLES WITHOUT EXCEPTION REJECTED THE NULL HYPOTHESIS. PARADOXICALLY, THIS IS OPPOSITE OF WHAT THE ECOLOGICAL MODEL OF AREAL DIFFERENTIATION PREDICTED. WITH REGARD TO THE PREVIOUS TWO HYPOTHESES WHICH SUPPORTED THE MODEL OF AREAL DIFFERENTIATION WHEN TESTED, IT WOULD BE EXPECTED THAT THE THIRD HYPOTHESIS WOULD REVEAL THE SAME. ACTUALLY, HOWEVER, IT IS THE INVASION-SUCCESSION MODEL WHICH SEEMS TO MORE ACCURATELY DESCRIBE THE ECOLOGICAL VARIATION PATTERN EXISTING WITH RESPECT TO THE DIFFERENCES BETWEEN NEGRO AND WHITE RESIDENTS.

PREVIOUSLY, IN DEALING WITH THE FIRST HYPOTHESIS, IT WAS SHOWN THAT THERE WAS INDEED A SIGNIFICANT DIFFERENCE BETWEEN CHARACTERISTICS OF NEGRO RESIDENTS IN THE TWO CORE AREAS, BUT THAT THERE WAS LITTLE DIFFERENCE IN THE INTERNAL PATTERN OF THE CORE AREAS, I.E., AMONG STATUS AREAS OR AMONG STAGES OF SUCCESSION WITHIN THE SAME CORE AREA. A LOOK AT TABLE 38 SUGGESTS THAT "AREAL STABILITY" WAS AND IS STILL EXISTENT REGARDLESS OF THE FACT THAT RELATIONSHIP OF WHITES BEING REPLACED TO NEGROES BY CORE AREA DOES NOT BEAR OUT ACCORDING TO THAT PREDICTED BY THE MODEL. TABLE 38 SHOWS THAT THE WHITE POPULATION BEING REPLACED IN THE TWO CORE AREAS ARE SIGNIFICANTLY DIFFERENT IN MOST CASES. THE RAW DATA, FURTHERMORE, (SEE APPENDIX) SUGGEST THAT THOSE WHITES RESIDING IN THE MIDDLE-WEST CORE AREA ARE LOWER IN SOCIAL STATUS THAN WHITES IN THE EAST CORE AREA. INTERESTINGLY, THE THREE VARIABLES WHICH ARE MOST CLOSELY RELATED TO SOCIAL STATUS, I.E., OCCUPATION, INCOME, AND EDUCATION, ALL REJECTED THE NULL HYPOTHESIS.

TABLE XXXVIII. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN WHITES BEING REPLACED BY NEGROES IN EAST CORE AREA AND IN MIDDLE-WEST CORE AREA BY HOUSING, SOCIO-ECONOMIC, AND FAMILY VARIABLES.*

VARIABLES	x^2	D.F.	$P<$	H_0
HOUSING				
1. ROOMS PER DWELLING UNIT	5.38	4	.30	ACCEPTED
2. PERSONS PER DWELLING UNIT	9.75	5	.10	ACCEPTED
3. TYPE OF STRUCTURE	0.26	1	.70	ACCEPTED
4. CONDITION OF STRUCTURE	70.60	2	.001	REJECTED
5. TENURE	.32	1	.70	ACCEPTED
6. HOUSE VALUE	34.51	3	.001	REJECTED
7. MONTHLY RENT	16.56	2	.001	REJECTED
SOCIO-ECONOMIC				
1. EMPLOYMENT STATUS OF MALE HEAD	1.11	1	.30	ACCEPTED
2. OCCUPATION	32.40	4	.001	REJECTED
3. EMPLOYMENT STATUS OF WIFE	3.08	1	.10	ACCEPTED
4. ANNUAL FAMILY INCOME	9.90	3	.02	REJECTED
5. EDUCATIONAL ATTAINMENT	39.87	4	.001	REJECTED
6. RELIGIOUS AFFILIATION	--	--	--	--
FAMILY				
1. MARITAL STATUS	2.67	2	.30	ACCEPTED
2. PLACE OF BIRTH OF HEAD	20.68	2	.001	REJECTED
3. LENGTH OF RESIDENCE IN GRAND RAPIDS	7.42	2	.05	REJECTED
4. LENGTH OF RESIDENCE IN PRESENT ADDRESS	9.39	3	.05	REJECTED

*FORMULA: WHITES IN 1A + 2 + 3 STATUS AREAS WHICH COMPRISE EAST CORE AREA AGAINST WHITES IN 1B + 4 + 5 STATUS AREAS WHICH COMPRISE MIDDLE-WEST CORE AREA.

THE EXPLANATION CAN PERHAPS BE FOUND IN REFERENCE TO THE "AREAL STABILITY" FACTOR. THE EAST CORE AREA HAS ALWAYS MANIFESTED A HIGHER RESIDENTIAL STATUS THAN THE MIDDLE-WEST CORE AREA, EVEN WHEN THE AREAS WERE PREDOMINANTLY WHITE. THE CORE AREAS RETAINED THEIR STATUS IN RELATION TO EACH OTHER, EVEN THOUGH THE RACIAL COMPOSITION OF THE AREAS CHANGED FROM PREDOMINANTLY WHITE TO PREDOMINANTLY NEGRO. THIS SUGGESTS, THEN, THAT RELATIVE STATUS OF THE TWO CORE AREAS REMAINED THE SAME OVER TIME BUT THE ABSOLUTE STATUS OF THE TWO CORE AREAS DROPPED WITH THE CHANGE IN RACIAL COMPOSITION.

IN TABLE 38, HOWEVER, THE COMPARISON OF WHITE RESIDENTS BEING REPLACED WAS BETWEEN ALL WHITES IN BOTH AREAS REGARDLESS OF STAGE OF SUCCESSION. IF STAGE OF SUCCESSION WAS CONTROLLED, THEN, WOULD THE PATTERN OF DIFFERENCE BETWEEN THE TWO CORE AREAS FOR WHITES BEING REPLACED APPEAR DIFFERENT? TABLE 39 UTILIZES ONLY THE THREE MAJOR INDICES OF SOCIAL STATUS IN THIS THESIS, BUT STAGE OF SUCCESSION IS PARTIALLY CONTROLLED. BECAUSE OF THE LIMITATIONS OF THE DATA THE STAGES OF "INVASION" AND "INFILTRATION" HAD TO BE COMBINED AS WELL AS "CONCENTRATION" AND "CONSOLIDATION." BUT THE TABLE SHOWS THAT THE STATUS DIFFERENCE BETWEEN THE TWO CORE AREAS HOLDS WHETHER WHITES IN CONCENTRATION-CONSOLIDATION AREAS ARE COMPARED OR WHITES IN INVASION-INFILTRATION AREAS. THE ONLY CASE WHERE THE NULL HYPOTHESIS IS NOT REJECTED IS BETWEEN WHITES IN INVASION-INFILTRATION AREAS IN THE TWO CORE AREAS FOR THE INCOME VARIABLES.

TABLE. XXXIX. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN WHITES BEING REPLACED IN INVASION-INFILTRATION STAGES OF SUCCESSION BY CORE AREA AND BETWEEN CONCENTRATION-CONSOLIDATION STAGES OF SUCCESSION BY CORE AREA FOR SELECTED SOCIO-ECONOMIC VARIABLES.*

Socio-Economic Variables	Invasion-Infiltration				Concentration-Consolidation			
	x^2	D.F.	P<	H_0	x^2	D.F.	P<	H_0
Occupation	26.31	3	.001	Rejected	10.66	2	.001	Rejected
Annual Family Income	3.05	3	.50	Accepted	10.80	3	.02	Rejected
Educational Attainment	26.01	3	.001	Rejected	17.80	3	.001	Rejected

*Formula: Invasion ≠ Infiltration stages of succession in East Core Area against Invasion ≠ Infiltration stages of succession in Middle-West Core Area; Concentration ≠ Consolidation the same.

RETURNING NOW TO THE ECOLOGICAL VARIATION PATTERN BETWEEN NEGROES AND WHITES BEING REPLACED WITHIN THE TWO CORE AREAS, IT WAS NOTED IN TABLE 37 THAT FOR THIS PATTERN THE MODEL OF INVASION-SUCCESSION SEEMS TO BE VALIDATED. THIS MEANS, THEN, THAT FOR THE MOST PART IN REPRESENTING THE ECOLOGICAL VARIATION PATTERN FOR THE NEGRO COMMUNITY IN THIS PARTICULAR CITY, THE AREAL DIFFERENTIATION MODEL HOLDS TRUE EXCEPT FOR THE STATUS RELATIONSHIP BETWEEN THE "INVADING" NEGROES AND THE WHITES BEING REPLACED. TABLE 40 FURTHER SUBSTANTIATES THE OPERATION OF INVASION-SUCCESSION IN THIS RESPECT. TABLE 40 CONTRASTS NEGROES AND WHITES IN THE SAME AREAS OF INVASION-INFILTRATION FOR BOTH CORE AREAS. AGAIN ONLY THE THREE MAJOR INDICES OF SOCIAL STATUS ARE EMPLOYED. FOR THE EAST CORE AREA THE CONCLUSION IS UNDOUBTEDLY SUPPORTED. HOWEVER, THE MIDDLE-WEST CORE AREA REVEALS THAT THE NULL HYPOTHESIS OF NO DIFFERENCE WAS ACCEPTED FOR TWO OF THE THREE VARIABLES: INCOME AND EDUCATION. THIS SUGGESTS THAT THE WHITES BEING REPLACED IN THE EAST CORE AREA ARE OF A MUCH HIGHER STATUS THAN NEGROES REPLACING THEM. IN THE MIDDLE-WEST CORE AREA, THE LOWER STATUS CORE AREA, THE STATUS DIFFERENCE BETWEEN NEGROES AND WHITES BEING REPLACED IS NOT AS GREAT.

IN CONCLUSION, THE IMPLICATION MAY BE MADE THAT REGARDLESS OF STATUS DIFFERENCES WHICH MAY EXIST WITHIN THE NEGRO POPULATION, EVIDENCED BY RESIDENTIAL STATUS DIFFERENCES, THE NEGRO CONTINUES TO REMAIN OF LOW STATUS IN CONTRAST TO THE TOTAL URBAN COMMUNITY. THE

TABLE XXXX. TABLE OF CHI-SQUARES AS TESTS OF SIGNIFICANT DIFFERENCE BETWEEN NEGROES AND WHITES BEING REPLACED IN INVASION-INFILTRATION STAGES OF SUCCESSION BY CORE AREA FOR SELECTED SOCIO-ECONOMIC VARIABLES.*

	East Core Area			
Socio-Economic Variables	x^2	D.F.	$p<$	H_0
Occupation	29.78	3	.001	Rejected
Annual Family Income	9.86	2	.01	Rejected
Educational Attainment	10.05	3	.02	Rejected
	Middle-West Core Area			
	x^2	D.F.	$p<$	H_0
Occupation	16.44	2	.001	Rejected
Annual Family Income	2.67	2	.30	Accepted
Educational Attainment	2.60	2	.30	Accepted

*Formula: Negroes in Invasion-Infiltration against whites in Invasion-Infiltration Areas for East Core Area; same for Middle-West Core Area.

RESULT, THEN, WILL BE A CONTINUED RESISTENCE BY WHITE RESIDENTS IN THE CITY TO THE ATTEMPTS BY NEGROES TO EXPAND THE BOUNDARIES OF THEIR AREA OF PERMITTED RESIDENCE. THIS PHENOMENON IS FURTHER SUBSTANTIATED BY FIGURES 2, 3, AND 4 WHICH DEPICT HOW OVER THE LAST TWO DECADES THE BOUNDARIES OF THE NEGRO GHETTO HAVE FAILED TO EXPAND IN SPITE OF A RAPID POPULATION INCREASE FOR NEGROES IN THE CITY.

SUMMARY OF FINDINGS

1. ALTHOUGH LITTLE ECOLOGICAL VARIATION EXISTS WITHIN THE INTERNAL PATTERN OF A CORE AREA, THERE APPEARS TO BE A SIGNIFICANT DIFFERENCE IN STATUS BETWEEN THE WHITES BEING REPLACED AND THE NEGROES REPLACING THEM WITHIN OR CONTIGUOUS TO A CORE AREA.

2. THE FACT THAT WHITE RESIDENTS BEING REPLACED IN THE TWO CORE AREAS REVEAL A SIGNIFICANT STATUS DIFFERENCE SIMILAR TO THE DIFFERENCE BETWEEN NEGROES RESIDING IN THE TWO CORE AREAS REGARDLESS OF STAGE OF SUCCESSION, SUPPORTS THE FACTOR OF "AREAL STABILITY" AND SUGGESTS THE OPERATION OF AREAL DIFFERENTIATION AS THE INFLUENTIAL ECOLOGICAL PROCESS.

3. ALTHOUGH THE MAJORITY OF THE FINDINGS IN THIS THESIS HAVE SUPPORTED AREAL DIFFERENTIATION AS THE MOST INFLUENTIAL ECOLOGICAL PROCESS IN DEVELOPING THE PATTERN OF ECOLOGICAL VARIATION WITHIN THE NEGRO COMMUNITY, THE PROCESS OF INVASION-SUCCESSION SEEMS TO BE OPERATIVE SOMEWHAT WHEN NEGROES ARE INVADING WHITE RESIDENTIAL AREAS CONTIGUOUS TO THE NEGRO CORE AREA, THUS, SUGGESTING A CONTINUED CONFLICT AND RESISTENCE TO ATTEMPTS ON THE PART OF THE NEGRO COMMUNITY TO EXPAND THEIR AREA OF PERMITTED RESIDENCE.

CHAPTER VI

CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

THE PURPOSE OF THIS STUDY WAS PRIMARILY TO ESTABLISH THE PATTERNS OF ECOLOGICAL VARIATION MANIFESTED IN A NEGRO COMMUNITY IN A NORTHERN CITY. BASED ON THE RELEVANT LITERATURE, THERE INITIALLY APPEARED TO EXIST TWO BASIC TYPES OF ECOLOGICAL PROCESSES, BOTH ASSUMED TO BE EFFECTIVE IN THE DEVELOPMENT OF THE ECOLOGICAL VARIATION PATTERN WITHIN A NEGRO COMMUNITY. THESE TWO MODELS WERE DEPICTED GRAPHICALLY IN FIGURE 6 AND FROM THESE, THREE COMPARABLE HYPOTHESES WERE ESTABLISHED FOR EACH ECOLOGICAL MODEL. THE HYPOTHESES DEALT WITH TWO BASIC PATTERNS: THE INTERNAL ECOLOGICAL PATTERN OF THE NEGRO COMMUNITY AND THE RELATIONSHIP OF THE NEGRO COMMUNITY TO WHITES WHOM THEY WERE REPLACING IN CONTIGUOUS RESIDENTIAL AREAS. THE TWO ECOLOGICAL MODELS WERE THEN TESTED AGAINST THE DATA TO DETERMINE WHICH ECOLOGICAL PROCESS WAS MORE INFLUENTIAL AND IN WHAT RESPECTS WERE BOTH PROCESSES OPERATIVE ON THE BASIS OF THE THREE HYPOTHESES PROPOSED.

SUCH TESTING DEMONSTRATED CONCLUSIVELY THAT <u>AREAL DIFFERENTIATION AT THE CORE AREA LEVEL</u> ACCOUNTS FOR MORE OF THE PATTERN OF ECOLOGICAL VARIATION IN THE NEGRO COMMUNITY OF GRAND RAPIDS. FURTHERMORE, THERE APPEARED TO BE LITTLE INTERNAL VARIATION WITHIN THE NEGRO CORE AREAS, EITHER ON THE BASIS OF STATUS AREAS OR STAGES OF SUCCESSION. WHILE THE CONTRAST BETWEEN CORE AREAS WAS MOST APPARENT, THE DIFFERENCE

BETWEEN THE CONCENTRATED AREAS OF THESE CORE AREAS APPEARED TO BE GREATER THAN AT THE FRINGE OR INVASION AREAS OF THE CORE AREAS. IN OTHER WORDS, A STATUS DIFFERENCE WAS SHOWN TO EXIST BETWEEN THE TWO CORE AREAS. HOWEVER, THIS STATUS DIFFERENCE WAS MORE APPARENT WHEN CONTRASTING THE CONCENTRATED AREAS OF THE CORE AREAS RATHER THAN IN CONTRASTING THE FRINGE AREAS. THIS SUGGESTS THAT PERHAPS THE CONCENTRATED OR MOST DENSE AREA OF THE CORE (IN TERMS OF A GREATER PROPORTION OF NEGRO RESIDENTS) IS THE CHARACTER GIVING CENTER FOR THE ENTIRE CORE AREA.

NOT ONLY WAS AREAL DIFFERENTIATION VALIDATED IN TERMS OF ECOLOGICAL VARIATION, BUT IT WAS ALSO SUBSTANTIATED IN TERMS OF THE GRADIENT HYPOTHESIS. THE MOST CONSISTENT FREQUENCY OF A GRADIENT OF RELATIVE STATUS APPEARED AT THE CORE AREA LEVEL. GENERALLY, THE EAST CORE AREA WAS SHOWN TO BE OF A HIGHER STATUS ON THE BASIS OF THE CHARACTERISTICS OF ITS NEGRO RESIDENTS. FURTHERMORE, THIS GRADIENT OR RELATIVE STATUS PATTERN WAS SHOWN TO BE EXTREMELY STABLE, IN THAT OVER A PERIOD OF TWO DECADES THE SAME GRADIENT PATTERN WAS MAINTAINED WITH RESPECT TO THESE TWO CORE AREAS. WHEN CORE AREAS WERE HELD CONSTANT, STATUS AREAS AND STAGES OF SUCCESSION ONLY PARTIALLY MAINTAINED A GRADIENT PATTERN.

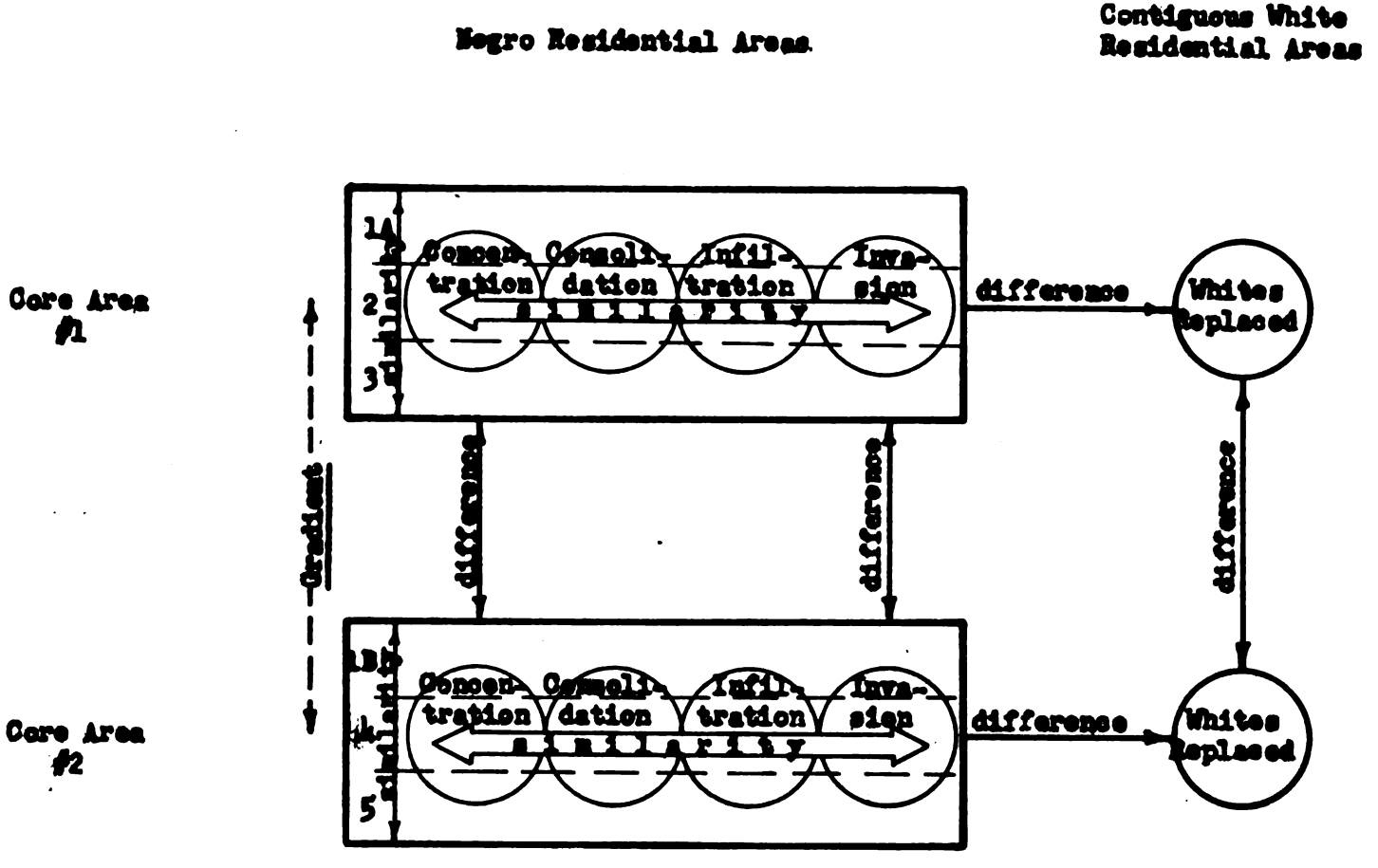
IN CONSIDERING THE ECOLOGICAL PATTERN OF STATUS FOR THE WHITE RESIDENTS BEING REPLACED AND THE NEGRO POPULATION REPLACING THEM, IT WAS FOUND THAT A SIGNIFICANT DIFFERENCE EXISTED. IN THIS SENSE,

THEREFORE, THE INVASION-SUCCESSION MODEL WAS BORNE OUT. THIS PATTERN SUGGESTED THAT NEGROES, REGARDLESS OF WHETHER THEY RESIDED IN THE CORE AREA OF HIGH STATUS OR THE CORE AREA OF LOW STATUS, WOULD BE RESISTED IN ANY ATTEMPTS TO INVADE WHITE AREAS BECAUSE OF THE STATUS DIFFERENCE WHICH EXISTS BETWEEN THE TWO RACIAL GROUPS. THIS CONCLUSION DOES NOT DEAL WITH THE PSYCHOLOGICAL OR SUBJECTIVE FACTORS PERHAPS INVOLVED IN ANY RESISTENCE BY WHITES TO INVADING NEGRO RESIDENTS, PRIMARILY BECAUSE IT WAS NOT INTENDED TO BE INCLUDED IN THE SCOPE OF THIS STUDY. HOWEVER, THIS ASPECT WILL BE MENTIONED LATER IN A DISCUSSION OF THE IMPLICATIONS THIS STUDY MAY HAVE FOR ADDITIONAL RESEARCH.

FINALLY, HOWEVER, IT WAS FOUND THAT THE WHITES BEING REPLACED BY NEGRO RESIDENTS OF EACH CORE AREA REVEALED A SIGNIFICANT DIFFERENCE IN STATUS. THIS, THEN, SUBSTANTIATED TO A GREATER EXTENT THE OPERATION OF AN "AREAL STABILITY" FACTOR AND, THUS, FURTHER SUBSTANTIATED AREAL DIFFERENTIATION AS THE INFLUENTIAL ECOLOGICAL PROCESS.

THESE CONCLUSIONS, FURTHERMORE, SUGGEST THE NEED TO DETERMINE A NEW MODEL OF ECOLOGICAL VARIATION FOR THIS NEGRO COMMUNITY WHICH COULD ALSO BE GENERALIZED FOR APPLICATION TO OTHER URBAN NEGRO COMMUNITIES. THIS NEW MODEL IS PRESENTED IN FIGURE 9. BY PRESENTING THESE CONCLUSIONS GRAPHICALLY, THEREFORE, IT CAN BE FURTHER NOTED THAT THE NEW MODEL OF ECOLOGICAL VARIATION COMBINES ELEMENTS OF BOTH OF THE EARLIER MODELS PRESENTED IN FIGURE 6. HOWEVER, FOR THE MOST PART THE MODEL INCORPORATES MOST OF THE PREDICTED PATTERNS ESTABLISHED IN THE EARLIER MODEL OF AREAL DIFFERENTIATION.

FIGURE 9. ACTUAL PATTERN OF ECOLOGICAL VARIATION FOR NEGRO COMMUNITY IN GRAND RAPIDS: AN ALTERNATIVE MODEL TO AREAL DIFFERENTIATION AND INVASION-SUCCESSION.



WITH REFERENCE TO FIGURE 9, THEREFORE, A FEW CONCLUDING COMMENTS CAN BE MADE CONCERNING THIS NEW MODEL POSITED AS AN ALTERNATIVE TO THE MODELS OF AREAL DIFFERENTIATION AND INVASION-SUCCESSION. THIS NEW MODEL RESEMBLES TO A LARGE EXTENT THE MODEL OF AREAL DIFFERENTIATION PRESENTED EARLIER IN FIGURE 6. WITHIN THIS MODEL IT WAS HYPOTHESIZED THAT LITTLE DIFFERENCE WOULD BE FOUND AMONG STAGES OF SUCCESSION WITHIN A CORE AREA. HOWEVER, IN THE ANALYSIS NOT ONLY WAS THIS HYPOTHESIS SUPPORTED BUT IT WAS DEMONSTRATED FURTHER THAT EVEN STATUS AREAS WITHIN A CORE AREA DO NOT REVEAL SIGNIFICANT DIFFERENCES. THE SIGNIFICANT CONTRAST OF STATUS, THEREFORE, EXISTS BETWEEN CORE AREAS. FURTHERMORE, AS IN THE MODEL OF AREAL DIFFERENTIATION, THIS NEW MODEL REVEALS A DEFINITE GRADIENT PATTERN EXISTING AMONG CORE AREAS, IN TERMS OF BOTH "STABILITY" OVER TIME AND "CONSISTENCY" OF STATUS INDICES. THE POINT AT WHICH THE MODEL OF INVASION-SUCCESSION BECOMES PART OF THIS NEW MODEL OF ECOLOGICAL VARIATION LIES IN THE CONTRASTING OF NEGRO RESIDENTS OF THE CORE AREAS WITH THE WHITE RESIDENTS BEING REPLACED. THE HYPOTHESIS BASED UPON THE INVASION-SUCCESSION MODEL THAT THERE IS A SIGNIFICANT DIFFERENCE BETWEEN NEGRO INVADERS AND WHITES BEING REPLACED WAS SUPPORTED IN THE ANALYSIS. THIS PROPOSITION, THEN, HAS BEEN INCORPORATED INTO THE NEW MODEL AS PRESENTED IN FIGURE 9. ONE ADDITIONAL ASPECT WHICH WAS NOT HYPOTHESIZED IN EITHER OF THE EARLIER MODELS IS THE CONTRAST OF WHITES BEING REPLACED ON THE BASIS OF THE CORE AREA TO WHICH THEIR RESIDENCES ARE CONTIGUOUS. IT WAS DEMONSTRATED

IN THE ANALYSIS THAT, AS THE NEGRO CORE AREAS REVEALED A STATUS DIFFERENCE, SO ALSO THE WHITES BEING REPLACED SHOWED A SIGNIFICANT STATUS DIFFERENCE. THIS SUGGESTS, THEN, THAT THE HIGH STATUS CORE AREA WAS EXPANDING INTO RELATIVELY HIGH STATUS WHITE RESIDENTIAL AREAS WHILE THE LOW STATUS CORE AREA WAS EXPANDING INTO RELATIVELY LOW STATUS WHITE RESIDENTIAL AREAS.

LIMITATIONS AND WEAKNESSES OF THE STUDY.

SEVERAL POINTS CAN BE MADE IN REFERENCE TO THIS PARTICULAR ASPECT OF THE STUDY. FIRST, IN DEALING WITH ANY TYPE OF "PROCESS," ECOLOGICAL OR OTHER, THE OBSERVER IS FORCED TO SELECT SPECIFIC POINTS IN TIME IN WHICH TO OBSERVE THE PROCESS. THUS, ONLY THE PRODUCT OF THE PROCESS CAN BE OBSERVED EMPIRICALLY, AND NOT THE PROCESS ITSELF. FURTHERMORE, BY LOOKING AT THE PRODUCT OF THE PROCESS AT POINTS OF TIME WHICH ARE SPACED RELATIVELY FAR APART IN THEIR TEMPORAL SEQUENCE, MANY OF THE VARIATION PATTERNS WHICH APPEAR BETWEEN THE POINTS OF OBSERVATION ARE NOT DETECTED. IN THIS STUDY THE WRITER HAS MADE THE ASSUMPTION THAT, FROM THE ECOLOGICAL PATTERNS OBSERVED AT THE THREE POINTS OF TIME SELECTED, A GENERAL CONCEPTION OF THE TOTAL PROCESS OVER THE ENTIRE PERIOD OF TIME CONSIDERED IS PERCEIVABLE, IN SPITE OF THE FACT THAT MANY DIFFERENT PATTERNS MAY HAVE OCCURRED BETWEEN THE POINTS IN TIME SELECTED. NO DATA ARE AVAILABLE TO SHOW WHETHER OR NOT ANY SIGNIFICANTLY DIFFERENT PATTERNS EMERGED BETWEEN THESE POINTS OF TIME. THE ASSUMPTION CAN ONLY BE MADE THAT NO SUCH PATTERNS DID OCCUR.

A SECOND WEAKNESS IN THE STUDY LIES IN THE GENERAL PROCEDURE OR APPROACH TO THE PROBLEM. BY ESTABLISHING TWO MODELS OF ECOLOGICAL VARIATION, BOTH SEEMINGLY IN DIRECT OPPOSITION TO ONE ANOTHER ON THREE POINTS WHICH CONSTITUTED THE HYPOTHESES, THE ALTERNATIVES, THEN, WERE TO VALIDATE ONE OF THE MODELS OVER THE OTHER. AS THE THESIS PROCEEDED, HOWEVER, IT WAS NECESSARY TO ACCEPT ONLY PARTS OF EACH MODEL, RATHER THAN REJECTING THE ONE OR THE OTHER IN ITS ENTIRETY. THE POINT TO BE MADE, THEREFORE, IS THAT BOTH MODELS IDENTIFY ACTUAL ECOLOGICAL PROCESSES OPERATIVE IN THE DEVELOPMENT OF ECOLOGICAL VARIATION. THE OUTCOME OF THIS THESIS, AS A RESULT, WAS TO DETERMINE IN WHAT SENSE THE ELEMENTS OF EACH MODEL WERE MORE INFLUENTIAL OVER THE OTHER MODEL IN THE DEVELOPMENT OF THE PATTERN OF ECOLOGICAL VARIATION WITHIN THE NEGRO COMMUNITY.

THIRD, TOO MANY VARIABLES (SEVENTEEN IN ALL) WERE USED IN DETERMINING SIGNIFICANT ECOLOGICAL VARIATION PATTERNS. NOT ALL THE VARIABLES WERE EQUALLY SIGNIFICANT IN THIS RESPECT. SOME WERE MORE IMPORTANT TO STATUS DIFFERENCES THAN OTHERS, ALTHOUGH IN A SENSE ALL WERE INDIRECTLY RELATED TO SOCIAL STATUS. THE ALTERNATIVES WERE TO REDUCE THE VARIABLES OF CONCERN TO A FEW DIRECTLY RELATED TO SOCIAL STATUS, OR TO DEVELOP FROM PREVIOUS LITERATURE A THEORY OF THE RELATIONSHIP OF EACH OF THE SEVENTEEN VARIABLES TO SOCIAL STATUS. THE LATTER WAS NOT UNDERTAKEN FOR VARIOUS REASONS, BUT AN ATTEMPT WAS MADE TO FOCUS AT TIMES ON THE THREE VARIABLES OF OCCUPATION, INCOME, AND EDUCATION, WHICH HAVE BEEN USED FREQUENTLY AS INDICES OF SOCIAL STATUS IN SOCIOLOGICAL STUDIES.

FOURTH, A METHODOLOGICAL PROBLEM EXISTED WITH REFERENCE TO THE ESTABLISHMENT OF THE CONCEPTS OF "STAGES OF SUCCESSION" AND "STATUS AREAS" IN RELATION TO THEIR EMPIRICAL COUNTERPARTS. THIS THESIS UTILIZED AS A CRITERION OF "STAGE OF SUCCESSION" ONLY THE PROPORTION OF NEGRO RESIDENTS IN A PARTICULAR BLOCK. THIS IS A FAIRLY SIMPLIFIED TECHNIQUE COMPARED TO THE TECHNIQUE USED BY DUNCAN AND DUNCAN[1] IN ESTABLISHING THEIR "STAGES OF SUCCESSION." FURTHERMORE, MANY ATTEMPTS TO FORMULATE THE PHASES OF THE SUCCESSION PROCESS HAVE INCORPORATED NON-QUANTIFIABLE OR SUBJECTIVE FACTORS IN THEIR SCHEMES, E.G., THE SUBJECTIVE FACTOR INVOLVED IN THE RESISTENCE OF THE INVADED POPULATION TO THE INVADERS. TO SUBMIT SUCH SCHEMES TO EMPIRICAL TESTING, HOWEVER, REQUIRES THE EMPLOYMENT OF CRITERIA WHICH ARE OPERATIONALIZED AND QUANTITATIVELY DETERMINABLE. STATUS AREAS INVOLVE SOMETHING OF THE SAME PROBLEM. ONE MAY ASK: ARE STATUS AREAS OBJECTIVELY OBSERVABLE OR DO THEY EXIST MERELY IN THE MINDS OF THE PEOPLE OF A COMMUNITY? ALTHOUGH THE LATTER ASPECT DID NOT ENTER INTO THE DETERMINATION OF STATUS AREAS IN THIS STUDY, THE FACT STILL REMAINS THAT PERHAPS IT IS A LEGITIMATE AND NECESSARY AREA OF RESEARCH BY WHICH TO ADD TO THE TOTAL UNDERSTANDING OF ECOLOGICAL PROCESSES.

IMPLICATIONS FOR FURTHER RESEARCH.

MUCH MORE RESEARCH COULD BE DONE WITH REGARD TO THIS PROBLEM, FOR THERE IS A LACK OF CONTEMPORARY STUDIES OF ECOLOGICAL VARIATION

---

1. DUNCAN AND DUNCAN, OP. CIT.

PATTERNS WITHIN RACIAL COMMUNITIES. SUCH STUDIES COULD PERHAPS PROVIDE INCREASED UNDERSTANDING OF RACIAL PROBLEMS AND CONFLICTS WITHIN A COMMUNITY. ADDITIONAL RESEARCH COULD ATTEMPT TO DETERMINE HOW AREAL DIFFERENTIATION AND INVASION-SUCCESSION ARE RELATED, AND WHETHER THERE ARE ADDITIONAL ECOLOGICAL PROCESSES OPERATIVE IN SUCH SETTINGS AS FOCUSED UPON IN THIS STUDY. OF PARTICULAR CONCERN, PERHAPS, WOULD BE THE RELATIONSHIP OF THE SEVERAL VARIABLES EMPLOYED IN THIS STUDY TO EACH OTHER AND TO SOCIAL STATUS, AND HOW EACH ONE OPERATES IN EACH OF THE TWO ECOLOGICAL PROCESSES CONSIDERED.

FINALLY, A SEEMINGLY FRUITFUL AREA OF FURTHER RESEARCH IS THAT OF THE RELATIONSHIP OF OPINIONS, ATTITUDES, AND DEFINITIONS OF THE SITUATION HELD BY RESIDENTS INVOLVED IN AREAS UNDERGOING INVASION. THIS STUDY DEALT ONLY WITH OBJECTIVE DIFFERENCES OF THE WHITE AND NEGRO RESIDENTS INVOLVED, BUT A NECESSARY AREA OF INVESTIGATION WOULD BE TO WHAT EXTENT THESE OBJECTIVE DIFFERENCES POINTED OUT IN THIS STUDY ARE THE ONLY SIGNIFICANT ONES. THESE ARE MERELY A FEW OF THE AREAS WHICH SEEM TO THIS WRITER POSSIBILITIES FOR ADDITIONAL RESEARCH. MANY OTHERS ARE PERHAPS MENTIONABLE. THE NEED FOR ADDITIONAL RESEARCH IN THE AREA OF RACIAL RESIDENCE PATTERNS IS PARTICULARLY ACUTE IN LIGHT OF THE TREMENDOUS GROWTH OF THE NEGRO POPULATION IN MANY OF OUR LARGER NORTHERN CITIES.

APPENDIX

LITERATURE CITED

ALIHAN, MILLA A. SOCIAL ECOLOGY: A CRITICAL ANALYSIS. NEW YORK: COLUMBIA UNIVERSITY PRESS, 1938.

BOGUE, DONALD J. COMPONENTS OF POPULATION CHANGE, 1940-50. STUDIES IN POPULATION DISTRIBUTION NO. 12. MIAMI, OHIO, AND CHICAGO: SCRIPP'S FOUNDATION FOR RESEARCH IN POPULATION PROBLEMS, MIAMI UNIVERSITY, AND POPULATION RESEARCH AND TRAINING CENTER, UNIVERSITY OF CHICAGO, 1957.

BURGESS, ERNEST W. "RESIDENTIAL SEGREGATION IN AMERICAN CITIES," THE ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE. VOL. 140, (NOVEMBER, 1928), PP. 105-15.

COWGILL, DONALD O. AND MARY S. COWGILL. "AN INDEX OF SEGREGATION BASED ON BLOCK STATISTICS," AMERICAN SOCIOLOGICAL REVIEW. VOL. 16, (DECEMBER, 1951), PP. 825-31.

COWGILL, DONALD O. "TRENDS IN RESIDENTIAL SEGREGATION OF NON-WHITES IN AMERICAN CITIES, 1940-50," AMERICAN SOCIOLOGICAL REVIEW. VOL. 21, (FEBRUARY, 1956),

DRAKE, ST. CLAIR AND HORACE CAYTON. BLACK METROPOLIS. NEW YORK: HARCOURT, BRACE, 1945.

DUNCAN, OTIS DUDLEY AND BEVERLY DUNCAN. THE NEGRO POPULATION OF CHICAGO: A STUDY OF RESIDENTIAL SUCCESSION. CHICAGO: UNIVERSITY OF CHICAGO PRESS, 1957.

ERICKSEN, E. GORDON. URBAN BEHAVIOR. NEW YORK: MACMILLAN, 1954.

FRAZIER, E. FRANKLIN. "NEGRO HARLEM: AN ECOLOGICAL STUDY," THE AMERICAN JOURNAL OF SOCIOLOGY. VOL. 43, (JULY, 1937-MAY, 1938), PP. 72-88.

FRAZIER, E. FRANKLIN. THE NEGRO IN THE UNITED STATES. NEW YORK: MACMILLAN, 1949.

GIBBARD, HAROLD A. RESIDENTIAL SUCCESSION: A STUDY IN HUMAN ECOLOGY. (UNPUBLISHED PH.D. DISSERTATION) ANN ARBOR: UNIVERSITY OF MICHIGAN, 1938.

GIBBARD, HAROLD A. "THE STATUS FACTOR IN RESIDENTIAL SUCCESSION," THE AMERICAN JOURNAL OF SOCIOLOGY. VOL. 46, (MAY, 1941), PP. 835-42.

GIST, NOEL P. AND L. A. HALBERT. URBAN SOCIETY. NEW YORK: THOMAS Y. CROWELL, 1956.

KING, EDWARD. A STUDY OF HOUSING IN SELECTED AREAS OF GRAND RAPIDS. GRAND RAPIDS: GRAND RAPIDS URBAN LEAGUE BOROUGH COMMUNITY ASSOCIATION, AUGUST, 1952.

MCENTIRE, DAVIS. RESIDENCE AND RACE. BERKELEY AND LOS ANGELES, CALIF.: UNIVERSITY OF CALIFORNIA PRESS, 1960.

LITERATURE CITED (CONTINUED)

McKenzie, R. D. "The Ecological Approach to the Study of the Human Community," in Park, Robert E., E. W. Burgess, and R. D. McKenzie. The City. Chicago: The University of Chicago Press, 1925.

McKenzie, R. D. "The Scope of Human Ecology," in The Urban Community. Ernest W. Burgess (Ed.) Chicago: University of Chicago Press, 1926.

Press, Charles. When One-Third of a City Moves to the Suburbs. East Lansing, Michigan: Institute for Community Development and Services, Michigan State University, 1959.

Queen, Stuart A. and David B. Carpenter. The American City. New York: McGraw-Hill, 1953.

Redick, Richard W. "Population Growth and Distribution in Central Cities, 1940-50," American Sociological Review. Vol. 21, (February, 1956), pp. 38-43.

Riemer, Svend. The Modern City. New York: Prentice-Hall, 1952.

Shils, Edward A. The Present State of American Sociology. Glencoe, Ill.: The Free Press, 1948.

Siegel, Sydney. Nonparametric Statistics for the Behavioral Sciences. New York: McGraw-Hill, 1956.

Thaden, J. F. Kent County, Michigan: Population Changes, 1950 to 1960, Potentials for 1970. Technical Bulletin Rev. 1 B-16. East Lansing, Mich.: Institute for Community Development, Michigan State University, February, 1961.

U. S. Bureau of the Census. U. S. Census of Housing: 1940. Vol. I Block Statistics. U. S. Government Printing Office. Washington, D. C., 1942.

U. S. Bureau of the Census. U. S. Census of Housing: 1950. Vol. V Block Statistics. Part 72. U.S. Government Printing Office, Washington, D.C., 1951.

U. S. Bureau of the Census. U. S. Census of Population: 1950. Vol. II Characteristics of the Population. Part 22. Michigan. U. S. Government Printing Office. Washington, D. C., 1952.

Weaver, Robert C. The Negro Ghetto. New York: Harcourt, Brace, 1948.

Weaver, Robert C. "Class, Race and Urban Renewal," Land Economics. Vol. 36., No. 3 (August, 1960), pp. 325-51.

TABLE XXXXI. ESTIMATE OF NEGRO BIRTHS, DEATHS, AND NATURAL INCREASE FOR GRAND RAPIDS: 1950-60.

Year	Total Births	Estimated Negro Births	Total Deaths	Estimated Negro Deaths	Estimated Negro Natural Increase (Births - Deaths)
1950	3,889	157	1,427	56	101
1951	5,946	258	1,948	85	173
1952	6,270	300	1,938	93	207
1953	5,224	273	1,973	103	170
1954	5,648	320	2,001	113	207
1955	5,777	352	2,140	131	221
1956	5,678	371	2,063	135	236
1957	5,557	388	2,056	144	244
1958	5,054	375	1979	147	228
1959	4,780	376	2,040	160	216
1960	1,039	86	525	44	42
Total	54,862	3,256	20,090	1,211	2,045

Negro Population in 1950	6,912	
Negro Population in 1960	14,717	
Negro Population Increase 1950-60	7,805	
Negro Natural Increase 1950-60 (excess of births over deaths)	2,045	26%
Net in-migration 1950-60	5,760	74%

(Since no vital statistics were available for Negroes in Grand Rapids, it was necessary to estimate Negro births and deaths from total city figures. The assumption made was that for every year Negroes added to the city births and deaths according to their proportion of the total city population. It must be kept in mind that the figures in this table are estimates and not the actual figures.)

TABLE XXXXII. NUMBER OF ROOMS PER DWELLING UNIT BY STATUS AREA FOR NEGRO RESPONDENTS.

Number of Rooms	Status Areas 1A	2	3	1B	4	5	Total
Three or less	4	0	0	8	12	6	30
Four	8	8	4	16	20	12	68
Five	9	28	13	28	36	25	139
Six	14	40	12	12	27	30	135
Seven	13	30	11	14	15	8	91
Eight or more	16	22	7	5	12	14	76
Total	64	128	47	83	122	95	539

x^2 : 57.56 d.f. : 20 $p < .001$

PERCENTAGES

Number of Rooms	Status Areas 1A	2	3	1B	4	5	Total
Three or less	6.2	0.0	0.0	9.6	9.8	6.3	5.6
Four	12.5	6.3	8.5	19.3	16.4	12.6	12.6
Five	14.1	21.9	27.7	33.7	29.5	26.3	25.8
Six	21.9	31.2	25.5	14.5	22.2	31.7	25.0
Seven	20.3	23.4	23.4	16.9	12.3	8.4	16.9
Eight or more	25.0	17.2	14.9	6.0	9.8	14.7	14.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Number of Rooms per D.U.	6.09	6.23	6.09	5.24	5.40	5.67	5.76

TABLE XXXXIII. NUMBER OF ROOMS PER DWELLING UNIT BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Number of Rooms	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Three or less	0	1	9	20	30
Four	3	7	31	27	68
Five	7	19	64	49	139
Six	4	28	60	43	135
Seven	4	22	39	26	91
Eight or more	6	16	29	25	76
Total	24	93	232	190	539

x^2 : 29.06 d.f. : 12 $.01 > p > .001$

PERCENTAGES

Number of Rooms	Stages of Succession: Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Three or less	0.0	1.1	3.9	10.5	5.6
Four	12.5	7.5	13.4	14.2	12.6
Five	29.1	20.4	27.6	25.8	25.8
Six	16.7	30.1	25.8	22.6	25.0
Seven	16.7	23.7	16.8	13.7	16.9
Eight or more	25.0	17.2	12.5	13.2	14.1
Total	100.0	100.0	100.0	100.0	100.0
Mean Number of Rooms per D.U.	6.13	6.18	5.75	5.51	5.94

TABLE XXXXIV. NUMBER OF PERSONS PER DWELLING UNIT BY STATUS AREA FOR NEGRO RESPONDENTS.

Number of Persons	Status Areas: 1A	2	3	1B	4	5	Total
One	1	8	2	1	4	8	24
Two	12	25	14	18	23	15	107
Three	8	15	8	14	14	6	65
Four	21	16	9	12	18	7	83
Five	6	20	4	13	15	18	76
Six	8	19	6	13	9	14	69
Seven	3	10	3	8	14	12	50
Eight or more	5	15	1	4	25	15	65
Total	64	128	47	83	122	95	539

x^2 : 101.62 d.f. : 25 $p < .001$

PERCENTAGES

Number of Persons	Status Areas: 1A	2	3	1B	4	5	Total
One	1.6	6.3	4.3	1.2	3.3	8.4	4.4
Two	18.7	19.6	29.8	21.7	18.8	15.8	19.8
Three	12.5	11.7	17.0	16.9	11.5	6.3	12.1
Four	32.8	12.5	19.1	14.4	14.7	7.4	15.4
Five	9.4	15.6	8.5	15.7	12.3	19.0	14.1
Six	12.5	14.8	12.8	15.7	7.4	14.7	12.8
Seven	4.7	7.8	6.4	9.6	11.5	12.6	9.3
Eight or more	7.8	11.7	2.1	4.8	20.5	15.8	12.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Number of Persons per D.U.	4.33	4.37	4.46	3.72	5.07	5.13	4.62

TABLE XXXXV. NUMBER OF PERSONS PER DWELLING UNIT BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Number of Persons	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
One	1	3	8	12	24
Two	7	21	41	38	107
Three	2	16	24	23	65
Four	2	18	38	25	83
Five	2	9	38	27	76
Six	4	13	38	14	69
Seven	1	2	24	23	50
Eight or more	5	11	21	28	65
Total	24	93	232	190	539

x^2 : 23.19 d.f. : 15 $.10 > p > .05$

PERCENTAGES

Number of Persons	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
One	4.2	3.2	3.4	6.3	4.4
Two	29.2	22.6	17.7	20.0	19.8
Three	8.3	17.2	10.3	12.1	12.1
Four	8.3	19.4	16.4	13.2	15.4
Five	8.3	9.7	16.4	14.2	14.1
Six	16.7	14.0	16.4	7.4	12.8
Seven	4.2	2.1	10.3	12.1	9.3
Eight or more	20.8	11.8	9.1	14.7	12.1
Total	100.0	100.0	100.0	100.0	100.0
Mean Number of Persons per D.U.	4.88	4.35	4.68	4.69	4.62

TABLE XXXXVI. TYPE OF STRUCTURE BY STATUS AREA FOR NEGRO RESPONDENTS.

Type of Structure	Status Areas: 1A	2	3	1B	4	5	Total
Single family	30	100	35	24	76	53	318
Double family	31	26	12	40	37	36	182
Multiple family	3	2	0	19	9	6	39
Total	64	128	47	83	122	95	539

x^2 : 60.10 d.f. : 5 $p < .001$

PERCENTAGES

Type of Structure	Status Areas 1A	2	3	1B	4	5	Total
Single family	46.9	78.1	74.5	28.9	62.3	55.8	59.0
Double family	48.4	20.3	25.5	48.2	30.3	37.9	33.8
Multiple family	4.7	1.6	0.0	22.9	7.4	6.3	7.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Single Family	46.9	78.1	74.5	28.9	62.3	55.8	59.0

TABLE XXXXVII. TYPE OF STRUCTURE BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Type of Structure	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Single family	18	66	130	104	318
Double family	6	25	85	66	182
Multiple family	0	2	17	20	39
Total	24	93	232	190	539

x^2 : 10.10 d.f. : 3 $.02 > p > .01$

PERCENTAGES

1k

Type of Structure	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Single family	75.0	71.0	56.1	54.8	59.0
Double family	25.0	26.9	36.6	34.7	33.8
Multiple family	0.0	2.1	7.3	10.5	7.2
Total	100.0	100.0	100.0	100.0	100.0
Percent Single Family	75.0	71.0	56.1	54.8	59.0

TABLE XXXXVIII. CONDITION OF STRUCTURE BY STATUS AREA FOR NEGRO RESPONDENTS.

Condition of Structure	Status Areas 1A	2	3	1B	4	5	Total
Good	25	61	15	11	4	9	125
Fair	31	54	26	52	63	34	260
Poor or Dilapidated	6	8	6	17	51	45	133
Total	62	123	47	80	118	88	518

x^2 : 143.60 d.f. : 10 $p < .001$

PERCENTAGES

Condition of Structure	Status Areas 1A	2	3	1B	4	5	Total
Good	40.3	49.6	31.9	13.8	3.4	10.2	24.1
Fair	50.0	65.0	43.9	55.3	53.4	38.7	50.2
Poor or Dilapidated	9.7	6.5	12.8	21.2	43.2	51.1	25.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Poor or Dilapidated	9.7	6.5	12.8	21.2	43.2	51.1	25.7

TABLE XXXXIX. CONDITION OF STRUCTURE BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Condition of Structure	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Good	10	25	64	26	125
Fair	8	48	112	92	260
Poor or Dilapidated	4	16	46	67	133
Total	22	89	222	185	518

x^2 : 28.31 d.f. : 6 $p < .001$

PERCENTAGES

Condition of Structure	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Good	45.4	28.1	28.8	14.1	24.1
Fair	36.4	53.9	50.5	49.7	50.2
Poor or Dilapidated	18.2	18.0	20.7	36.2	25.7
Total	100.0	100.0	100.0	100.0	100.0
Percent Poor or Dilapidated	18.2	18.0	20.7	36.2	25.7

TABLE XXXXX. TENURE BY STATUS AREA FOR NEGRO RESPONDENTS.

Tenure	Status Areas 1A	2	3	1B	4	5	Total
Own	49	105	36	44	76	61	371
Rent	15	23	11	39	46	34	168
Total	64	128	47	83	122	95	539

x^2 : 26.50 d.f. : 5 $p < .001$

PERCENTAGES

Tenure	Status Areas 1A	2	3	1B	4	5	Total
Own	76.6	82.0	76.6	53.0	62.3	64.2	68.8
Rent	23.4	18.0	23.4	47.0	37.7	35.8	31.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Homeowners	76.6	82.0	76.6	53.0	62.3	64.2	68.8

TABLE XXXXXI. TENURE BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Tenure	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Own	20	76	146	129	371
Rent	4	17	86	61	168
Total	24	93	232	190	539

x^2 : 13.47 d.f. : 3 $.01 > p > .001$

PERCENTAGES

Tenure	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Own	83.3	81.7	62.9	67.9	68.8
Rent	16.7	18.3	37.1	32.1	31.2
Total	100.0	100.0	100.0	100.0	100.0
Percent Homeowners	83.3	81.7	62.9	67.9	68.8

TABLE XXXXXII. HOUSE VALUE BY STATUS AREA FOR NEGRO RESPONDENTS.

House Value	Status Areas 1A	2	3	1B	4	5	Total
Less than 5,000	1	1	2	1	4	3	12
5,000 to 6,999	0	27	6	6	17	20	76
7,000 to 8,999	3	50	13	13	27	23	129
9,000 to 10,999	12	14	5	8	17	10	66
11,000 to 14,999	19	6	0	12	1	2	40
15,000 or over	7	3	2	2	2	0	16
Total	42	101	28	42	68	58	339

x^2 : 112.54 d.f. : 15 $p < .001$

PERCENTAGES

House Value	Status Areas 1A	2	3	1B	4	5	Total
Less than 5,000	2.4	1.0	7.1	2.4	5.9	5.2	3.5
5,000 to 6,999	0.0	26.7	21.4	14.3	25.0	34.5	22.4
7,000 to 8.999	7.1	49.5	46.5	30.9	39.7	39.7	38.1
9,000 to 10,999	28.6	13.9	17.9	19.0	25.0	17.2	19.5
11,000 to 14,999	45.2	5.9	0.0	28.6	1.5	3.4	11.8
15,000 or over	16.7	3.0	7.1	4.8	2.9	0.0	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean House Value	$12,007	$7,791	$7,943	$9,495	$7,669	$7,279	$8,437

TABLE XXXXXIII. HOUSE VALUE BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

House Value	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Less than 5,000	0	0	3	9	12
5,000 to 6,999	6	12	18	40	76
7,000 to 8.999	4	34	46	45	129
9,000 to 10,999	6	9	26	25	66
11,000 to 14,999	2	6	28	4	40
15,000 or over	2	5	7	2	16
Total	20	66	128	125	339

x^2 : 41.57 d.f. : 9 $p < .001$

PERCENTAGES

House Value	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Less than 5,000	0.0	0.0	2.3	7.2	3.5
5,000 to 6,999	30.0	18.2	14.1	32.0	22.4
7,000 to 8,999	20.0	51.5	35.9	36.0	38.1
9,000 to 10,999	30.0	13.6	20.3	20.0	19.5
11,000 to 14,999	10.0	9.1	21.9	3.2	11.8
15,000 or over	10.0	7.6	5.5	1.6	4.7
Total	100.0	100.0	100.0	100.0	100.0
Mean House Value	$8,774	$8,491	$9,291	$7,452	$8,437

TABLE XXXXXIV. MONTHLY RENT BY STATUS AREA FOR NEGRO RESPONDENTS.

Monthly Rent	Status Areas 1A	2	3	1B	4	5	Total
Less than 40	0	0	0	1	3	8	12
40 to 49	1	1	2	3	6	6	19
50 to 59	3	13	6	8	16	12	58
60 to 69	8	8	3	19	14	6	58
70 or over	3	0	0	6	3	1	13
Total	15	22	11	37	42	33	160

x^2 : 33.44 d.f. : 10 $p < .001$

PERCENTAGES

Monthly Rent	Status Areas 1A	2	3	1B	4	5	Total
Less than 40	0.0	0.0	0.0	2.7	7.2	24.2	7.5
40 to 49	6.7	4.5	18.2	8.1	14.3	18.2	11.8
50 to 59	20.0	59.1	54.5	21.6	38.1	36.4	36.3
60 to 69	53.3	36.4	27.3	51.4	33.3	18.2	36.3
70 or over	20.0	0.0	0.0	16.2	7.1	3.0	8.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Monthly Rent	$61.50	$55.05	$52.73	$59.21	$53.86	$46.67	$54.44

TABLE XXXXXV. MONTHLY RENT BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Monthly Rent	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Less than 40	0	1	6	5	12
40 to 49	0	2	8	9	19
50 to 59	1	7	29	21	58
60 to 69	2	5	30	21	58
70 or over	1	1	9	2	13
Total	4	16	82	58	160

x^2 : 3.62 d.f. : 6 $.80 > p > .70$

PERCENTAGES

Monthly Rent	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Less than 40	0.0	6.2	7.3	8.6	7.5
40 to 49	0.0	12.5	9.7	15.5	12.0
50 to 59	25.0	43.8	35.4	36.2	36.5
60 to 69	50.0	31.3	36.6	36.2	35.8
70 or over	25.0	6.2	11.0	3.5	8.2
Total	100.0	100.0	100.0	100.0	100.0
Mean Monthly Rent	$61.25	$54.59	$55.47	$52.48	$54.44

TABLE XXXXXVI. EMPLOYMENT STATUS OF MALE HEAD BY STATUS AREA FOR NEGRO RESPONDENTS.

Employment Status of Male Head	Status Areas 1A	2	3	1B	4	5	Total
Employed	45	91	32	45	77	56	346
Unemployed	8	16	4	12	19	12	71
Retired	0	5	5	1	2	2	15
No Male Head	11	16	6	25	24	25	107
Total	64	128	47	83	122	95	539

x^2 : 15.43 d.f. : 10 $.20 > p > .10$

PERCENTAGES

Employment Status of Male Head	Status Areas 1A	2	3	1B	4	5	Total
Employed	70.3	71.1	68.1	54.2	63.1	59.0	64.2
Unemployed	12.5	12.5	8.5	14.5	15.6	12.6	13.2
Retired	0.0	3.9	10.6	1.2	1.6	2.1	2.8
No Male Head	17.2	12.5	12.8	30.1	19.7	26.3	19.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Male Head Employed	70.3	71.1	68.1	54.2	63.1	59.0	64.2

TABLE XXXXXVII. EMPLOYMENT STATUS OF MALE HEAD BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Employment Status of Male Head	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Employed	17	61	157	111	346
Unemployed	3	11	29	28	71
Retired	1	5	4	5	15
No Male Head	3	16	42	46	107
Total	24	93	232	190	539

x^2 : 5.54 d.f. : 6 $.50 > p > .30$

PERCENTAGES

Employment Status of Male Head	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Employed	70.8	65.6	67.7	58.4	64.2
Unemployed	12.5	11.8	12.5	14.8	13.2
Retired	4.2	5.4	1.7	2.6	2.8
No Male Head	12.5	17.2	18.1	24.2	19.8
Total	100.0	100.0	100.0	100.0	100.0
Percent Male Head Employed	70.8	65.6	67.7	58.4	64.2

TABLE XXXXXVIII. OCCUPATION BY STATUS AREA FOR NEGRO RESPONDENTS.

Occupation	Status Areas 1A	2	3	1B	4	5	Total
Professional	6	0	1	2	1	1	11
Manager, etc.	2	0	0	0	0	0	2
Clerical	1	3	2	4	0	0	10
Sales	0	6	0	1	0	0	7
Craftsmen	3	13	3	3	6	5	33
Operative	19	41	9	17	37	32	155
Service	12	19	6	8	11	9	65
Labor	2	9	11	10	22	9	63
Total	45	91	32	45	77	56	346

x^2 : 78.31 d.f. : 20 $p < .001$

PERCENTAGES

Occupation	Status Areas 1A	2	3	1B	4	5	Total
Professional	13.3	0.0	3.1	4.4	1.3	1.8	3.2
Manager, etc.	4.4	0.0	0.0	0.0	0.0	0.0	0.6
Clerical	2.2	3.3	6.2	8.9	0.0	0.0	2.9
Sales	0.0	6.6	0.0	2.2	0.0	0.0	2.0
Craftsmen	6.7	14.3	9.4	6.7	7.8	8.9	9.5
Operatives	42.3	45.0	28.1	37.8	48.0	57.1	44.8
Service	26.7	20.9	18.8	17.8	14.3	16.1	18.8
Labor	4.4	9.9	34.4	22.2	28.6	16.1	18.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent White Collar	19.9	9.9	9.3	15.5	1.3	1.8	8.7

TABLE XXXXXIX. OCCUPATION BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Occupation	Stages of Succession Invasion	Infiltration	Consolidation	Concentration	Total
Professional	0	2	9	0	11
Managers, etc.	0	1	1	0	2
Clerical	0	1	7	2	10
Sales	2	1	4	0	7
Craftsmen	2	7	12	12	33
Operatives	10	26	75	44	155
Service	3	14	22	26	65
Labor	0	9	27	27	63
Total	17	61	157	111	346

x^2 : 22.68 d.f. : 12 $.05 > p > .02$

PERCENTAGES

Occupation	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Professional	0.0	3.3	5.7	0.0	3.2
Managers, etc.	0.0	1.6	0.6	0.0	0.6
Clerical	0.0	1.6	4.5	1.8	2.9
Sales	11.8	1.6	2.6	0.0	2.0
Craftsmen	11.8	11.5	7.6	10.8	9.5
Operatives	58.8	42.6	47.8	39.7	44.8
Service	17.6	23.0	14.0	23.4	18.8
Labor	0.0	14.8	17.2	24.3	18.2
Total	100.0	100.0	100.0	100.0	100.0
Percent White Collar	11.8	8.1	13.4	1.8	8.7

TABLE XXXXXX. EMPLOYMENT STATUS OF WIFE BY STATUS AREA FOR NEGRO RESPONDENTS.

Employment Status of Wife	Status Areas: 1A	2	3	1B	4	5	Total
Employed	31	37	11	23	48	17	167
Fulltime	22	15	8	19	26	10	100
Parttime	9	22	3	4	22	7	67
Not employed	33	89	36	59	71	77	365
Total	64	126	47	82	119	94	532

x^2 : 22.80 d.f. : 5 $p < .001$

PERCENTAGES

Employment Status of Wife	Status Areas: 1A	2	3	1B	4	5	Total
Employed	48.4	29.4	23.4	28.0	40.3	18.1	31.4
Fulltime	34.4	11.9	17.0	23.2	21.8	10.6	18.8
Parttime	14.0	17.5	6.4	4.8	18.5	7.5	12.6
Not employed	51.6	70.6	76.6	72.0	59.7	81.9	68.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Wife Employed	48.4	29.4	23.4	28.0	40.3	18.5	31.4

TABLE XXXXXXI. EMPLOYMENT STATUS OF WIFE BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Employment Status of Wife	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Employed	3	29	79	56	167
Fulltime	2	17	46	35	100
Parttime	1	12	33	21	67
Not employed	21	62	151	131	365
Total	24	91	230	187	532

x^2 : 4.97 d.f. : 3 $.20 > p > .10$

PERCENTAGES

Employment Status of Wife	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Employed	12.5	31.9	34.3	29.9	31.4
Fulltime	8.3	18.7	20.0	18.7	18.8
Parttime	4.2	13.2	14.3	11.2	12.6
Not employed	87.5	68.1	65.7	70.1	68.6
Total	100.0	100.0	100.0	100.0	100.0
Percent Wife Employed	12.5	31.9	34.3	29.9	31.4

TABLE XXXXXXII. ANNUAL FAMILY INCOME BY STATUS AREA FOR NEGRO RESPONDENTS.

Annual Family Income	Status Areas: 1A	2	3	1B	4	5	Total
Less than 2,000	11	27	18	27	43	35	161
2,000 to 3,999	19	45	13	33	41	29	180
4,000 to 5,999	22	49	14	16	30	27	158
6,000 to 7,999	6	5	2	4	2	3	22
8,000 or over	3	2	0	3	1	1	10
Total	61	128	47	83	117	95	531

x^2 : 31.94 d.f. : 15 $.01 > p > .001$

PERCENTAGES

Annual Family Income	Status Areas 1A	2	3	1B	4	5	Total
Less than 2,000	18.0	21.1	38.3	32.5	36.8	36.8	30.3
2,000 to 3,999	31.2	35.1	27.7	39.8	35.0	30.5	33.9
4,000 to 5,999	36.1	38.3	29.8	19.3	25.6	28.4	29.8
6,000 to 7,999	9.8	3.9	4.2	4.8	1.7	3.2	4.1
8,000 or over	4.9	1.6	0.0	3.6	0.9	1.1	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Annual Income	$3,574	$3,197	$2,681	$2,771	$2,589	$2,695	$2,907

TABLE XXXXXXIII. ANNUAL FAMILY INCOME BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Annual Family Income	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Less than 2,000	4	22	59	76	161
2,000 to 3,999	7	27	84	62	180
4,000 to 5,999	12	34	68	44	158
6,000 to 7,999	0	4	12	6	22
8,000 or over	1	3	6	0	10
Total	24	90	229	188	531

x^2 : 26.05 d.f. : 9 $.01 > p > .001$

PERCENTAGES

Annual Family Income	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Less than 2,000	16.7	24.5	25.8	40.4	30.3
2,000 to 3,999	29.2	30.0	36.7	33.0	33.9
4,000 to 5,999	50.0	37.8	29.7	23.4	29.8
6,000 to 7,999	0.0	4.4	5.2	3.2	4.1
8,000 or over	4.1	3.3	2.6	0.0	1.9
Total	100.0	100.0	100.0	100.0	100.0
Mean Annual Income	$3,500	$3,144	$3,039	$2,546	$2,907

TABLE XXXXXXIV. EDUCATIONAL ATTAINMENT BY STATUS AREA FOR NEGRO RESPONDENTS.

Educational Attainment	Status Areas 1A	2	3	1B	4	5	Total
Sixth or below	3	19	5	21	36	24	108
7th to 9th	10	43	12	21	41	33	160
10th to 11th	14	25	11	13	21	23	107
12th	19	33	7	18	12	8	97
Some College	7	5	7	4	3	1	27
College Grad.	4	3	0	1	0	1	9
Total	57	128	42	78	113	90	508

x^2 : 71.05 d.f. : 20 $p < .001$

PERCENTAGES

Educational Attainment	Status Areas 1A	2	3	1B	4	5	Total
Sixth or below	5.3	14.1	12.2	25.6	31.2	26.7	20.8
7th to 9th	17.5	35.0	26.8	28.2	36.8	36.7	31.9
10th to 11th	24.6	19.2	26.8	16.7	17.9	25.5	20.9
12th	33.3	25.0	17.1	23.1	11.3	8.9	19.1
Some College	12.3	4.2	17.1	5.1	2.8	1.1	5.5
College Grad.	7.0	2.5	0.0	1.3	0.0	1.1	1.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Grade Attained	11.12	9.52	9.95	8.73	7.97	8.07	9.02

TABLE XXXXXXV. EDUCATIONAL ATTAINMENT BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Educational Attainment	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Sixth or below	2	14	35	57	108
7th to 9th	6	31	65	58	160
10th to 11th	4	24	44	35	107
12th	7	15	52	23	97
Some College	3	5	16	3	27
College Grad.	1	2	6	0	9
Total	23	91	218	176	508

x^2 : 39.84 d.f. : 12 $p < .001$

PERCENTAGES

Educational Attainment	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Sixth or below	8.7	15.4	16.1	32.4	20.8
7th to 9th	26.1	34.0	29.8	32.9	31.9
10th to 11th	17.4	26.4	20.2	19.9	20.9
12th	30.4	16.5	23.9	13.1	19.1
Some College	13.0	5.5	7.3	1.7	5.5
College Grad.	4.4	2.2	2.7	0.0	1.8
Total	100.0	100.0	100.0	100.0	100.0
Mean Grade Attained	10.30	9.33	9.62	7.92	9.02

TABLE XXXXXXVI. RELIGIOUS AFFILIATION BY STATUS AREA FOR NEGRO RESPONDENTS.

Religious Affiliation	Status Areas: 1A	2	3	1B	4	5	Total
Baptist	30	64	19	40	73	46	272
Methodist	16	22	12	16	11	9	86
Church of God	7	14	3	10	16	16	66
Episcopal	3	12	6	2	0	1	24
Catholic	2	2	4	2	1	3	14
Others	1	3	1	5	8	11	29
No affiliation	5	11	2	8	13	9	48
Total	64	128	47	83	122	95	539

x^2 : 52.61 d.f. : 20 $p < .001$

PERCENTAGES

Religious Affiliation	Status Areas: 1A	2	3	1B	4	5	Total
Baptist	46.9	50.0	40.4	48.2	59.8	48.4	50.5
Methodist	25.0	17.2	25.5	19.3	9.0	9.5	16.0
Church of God	10.9	10.9	6.4	12.0	13.1	16.8	12.2
Episcopal	4.7	9.4	12.8	2.4	0.0	1.0	4.4
Catholic	3.1	1.6	8.5	2.4	0.8	3.2	2.6
Others	1.6	2.3	2.1	6.0	6.6	11.6	5.4
No affiliation	7.8	8.6	4.3	9.7	10.7	9.5	8.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Episcopal	4.7	9.4	12.8	2.4	0.0	1.0	4.4

TABLE XXXXXXVII. RELIGIOUS AFFILIATION BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Religious Affiliation	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Baptist	11	41	118	102	272
Methodist	4	18	45	19	86
Church of God	2	12	28	24	66
Episcopal	2	8	8	6	24
Catholic	1	1	7	5	14
Others	1	1	7	20	29
No affiliation	3	12	19	14	48
Total	24	93	232	190	539

x^2 : 14.49 d.f. : 12 $.30 > p > .20$

PERCENTAGES

Religious Affiliation	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Baptist	45.8	44.1	50.9	53.7	50.5
Methodist	16.7	19.3	19.4	10.0	16.0
Church of God	8.3	12.9	12.1	12.6	12.2
Episcopal	8.3	8.6	3.4	3.2	4.4
Catholic	4.2	1.1	3.0	2.6	2.6
Others	4.2	1.1	3.0	10.5	5.4
No affiliation	12.5	12.9	8.2	7.4	8.9
Total	100.0	100.0	100.0	100.0	100.0
Percent Episcopal	8.3	8.6	3.4	3.2	4.4

TABLE XXXXXXVIII. MARITAL STATUS BY STATUS AREA FOR NEGRO RESPONDENTS.

Marital Status	Status Areas: 1A	2	3	1B	4	5	Total
Married	49	106	37	58	95	69	414
Single	2	4	5	3	3	2	19
Widowed	5	13	2	6	12	14	52
Divorced	5	2	0	6	9	3	25
Separated	3	3	3	10	3	7	29
Total	64	128	47	83	122	95	539

x^2 : 19.48 d.f. : 10 $.05 > p > .02$

PERCENTAGES

Marital Status	Status Areas 1A	2	3	1B	4	5	Total
Married	76.6	82.8	78.7	69.9	77.9	72.6	76.8
Single	3.1	3.1	10.6	3.6	2.5	2.1	3.5
Widowed	7.8	10.2	4.3	7.2	9.8	14.7	9.7
Divorced	7.8	1.6	0.0	7.2	7.4	3.2	4.6
Separated	4.7	2.3	6.4	12.1	2.4	7.4	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Broken Home	12.5	3.9	6.4	19.3	9.8	10.6	10.0

TABLE XXXXXXIX. MARITAL STATUS BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Marital Status	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Married	20	74	182	138	414
Single	1	4	7	7	19
Widowed	2	8	20	22	52
Divorced	1	4	10	10	25
Separated	0	3	13	13	29
Total	24	93	232	190	539

x^2 : 3.98 d.f. : 6 $.70 > p > .50$

PERCENTAGES

Marital Status	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Married	83.3	79.6	78.5	72.6	76.8
Single	4.2	4.3	3.0	3.7	3.5
Widowed	8.3	8.6	8.6	11.6	9.7
Divorced	4.2	4.3	4.3	5.3	4.6
Separated	0.0	3.2	5.6	6.8	5.4
Total	100.0	100.0	100.0	100.0	100.0
Percent Broken Home	4.2	7.5	9.9	12.1	10.0

TABLE XXXXXXX. PLACE OF BIRTH OF HEAD BY STATUS AREA FOR NEGRO RESPONDENTS.

Place of Birth	Status Areas 1A	2	3	1B	4	5	Total
Grand Rapids	10	16	10	7	5	2	50
Michigan	7	6	4	4	4	6	31
North Central	6	26	9	3	4	4	52
South	38	77	21	67	106	82	391
Other	3	2	3	2	3	0	13
Total	64	127	47	83	122	94	537

x^2 : 65.40 d.f. : 10 $p < .001$

PERCENTAGES

Place of Birth	Status Areas 1A	2	3	1B	4	5	Total
Grand Rapids	15.6	12.6	21.3	8.5	4.1	2.1	9.3
Michigan	10.9	4.7	8.5	4.8	3.3	6.4	5.8
North Central	9.4	20.5	19.1	3.6	3.3	4.3	9.7
South	59.4	60.6	44.7	80.7	86.9	87.2	72.8
Other	4.7	1.6	6.4	2.4	2.4	0.0	2.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Percent Head Born in South	59.4	60.6	44.7	80.7	86.9	87.2	72.8

TABLE XXXXXXXI. PLACE OF BIRTH OF HEAD BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Place of Birth	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
Grand Rapids	5	12	23	10	50
Michigan	1	6	14	10	31
North Central	4	13	23	12	52
South	12	59	169	151	391
Other	2	3	2	6	13
Total	24	93	231	189	537

x^2 : 16.00 d.f. : 6 $.02 > p > .01$

PERCENTAGES

Place of Birth	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
Grand Rapids	20.8	12.9	9.9	5.3	9.3
Michigan	4.2	6.5	6.1	5.3	5.8
North Central	16.7	14.0	9.9	6.3	9.7
South	50.0	63.4	73.2	79.9	72.8
Other	8.3	3.2	0.9	3.2	2.4
Total	100.0	100.0	100.0	100.0	100.0
Percent Head Born in South	50.0	63.4	73.2	79.9	72.8

TABLE XXXXXXXII. LENGTH OF RESIDENCE IN GRAND RAPIDS BY STATUS AREA FOR NEGRO RESPONDENTS.

Length of Residence in Grand Rapids	Status Areas: 1A	2	3	1B	4	5	Total
1 to 2 years	3	0	2	2	4	2	13
3 to 6 years	7	28	2	19	25	24	105
7 to 10 years	7	13	6	14	21	18	79
over 10 years	47	86	37	48	70	51	339
Total	64	127	47	83	120	95	536

x^2 : 22.95 d.f. : 15 $.10 > p > .05$

PERCENTAGES

Length of Residence in Grand Rapids	Status Areas: 1A	2	3	1B	4	5	Total
1 to 2 years	4.7	0.0	4.2	2.4	3.3	2.1	2.6
3 to 6 years	10.9	22.1	4.3	22.9	20.8	25.3	19.6
7 to 10 years	10.9	10.2	12.8	16.9	17.5	18.9	14.7
over 10 years	73.5	67.7	78.7	57.8	58.3	53.7	63.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Length of Residence	17.84	17.20	25.91	13.13	13.79	12.64	15.83

TABLE XXXXXXXIII. LENGTH OF RESIDENCE IN GRAND RAPIDS BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Length of Residence in Grand Rapids	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
1 to 2 years	1	4	7	1	13
3 to 6 years	5	18	46	36	105
7 to 10 years	4	14	30	31	79
over 10 years	14	57	147	121	339
Total	24	93	230	189	536

x^2 : 1.76 d.f. : 6 $.95 > p > .90$

PERCENTAGES

Length of Residence in Grand Rapids	Stages of Succession: Invasion	Infiltration	Consolidation	Concentration	Total
1 to 2 years	4.2	4.3	3.1	0.5	2.6
3 to 6 years	20.8	19.3	20.0	19.1	19.6
7 to 10 years	16.7	15.1	13.0	16.4	14.7
over 10 years	58.3	61.3	63.9	64.0	63.1
Total	100.0	100.0	100.0	100.0	100.0
Mean Length of Residence	16.35	17.54	15.16	15.75	15.83

TABLE XXXXXXXIV. LENGTH OF RESIDENCE AT PRESENT ADDRESS BY STATUS AREA FOR NEGRO RESPONDENTS.

Length of Residence at Present Address	Status Areas: 1A	2	3	1B	4	5	Total
1 to 2 years	29	51	8	46	42	39	215
3 to 6 years	27	36	13	23	29	30	158
7 to 10 years	5	20	9	8	30	17	89
over 10 years	3	21	17	6	21	9	77
Total	64	128	47	83	122	95	539

x^2 : 53.97 d.f. : 15 $p < .001$

TABLE XXXXXXXVI. NUMBER OF ROOMS PER DWELLING UNIT BY CORE AREA FOR NEGRO RESPONDENTS.

Number of Rooms	East Core		Middle-West Core		Total	
	Number	Percent	Number	Percent	Number	Percent
Three or less	4	1.7	26	8.7	30	5.6
Four	20	8.4	48	16.0	68	12.6
Five	50	20.9	89	29.7	139	25.8
Six	66	27.6	69	23.0	135	25.0
Seven	54	22.6	37	12.3	91	16.9
Eight or more	45	18.8	31	10.3	76	14.1
Total	239	100.0	300	100.0	539	100.0
Mean Number of Rooms per D.U.		6.17		5.44		5.76

x^2 : 37.97 d.f. : 5 $p < .001$

TABLE XXXXXXXVII. NUMBER OF PERSONS PER DWELLING UNIT BY CORE AREA FOR NEGRO RESPONDENTS.

Number of Persons	East Core		Middle-West Core		Total	
	Number	Percent	Number	Percent	Number	Percent
One	11	4.6	13	4.3	24	4.4
Two	51	21.3	56	18.8	107	19.8
Three	31	13.0	34	11.3	65	12.1
Four	46	19.2	37	12.3	83	15.4
Five	30	12.6	46	15.3	76	14.1
Six	33	13.8	36	12.0	69	12.8
Seven	16	6.7	34	11.3	50	9.3
Eight or more	21	8.8	44	14.7	65	12.1
Total	239	100.0	300	100.0	539	100.0
Mean Number of Persons per D.U.		4.28		4.90		4.62

x^2 : 12.92 d.f. : 7 $.10 > p > .05$

TABLE XXXXXXXVIII. TYPE OF STRUCTURE BY CORE AREA FOR NEGRO RESPONDENTS.

Type of Structure	East Core		Middle-West Core		Total	
	Number	Percent	Number	Percent	Number	Percent
Single family	165	69.0	153	51.0	318	59.0
Double family	69	28.9	113	37.7	182	33.8
Multiple family	5	2.1	34	11.3	39	7.2
Total	239	100.0	300	100.0	539	100.0
Percent Single family		69.0		51.0		59.0

x^2 : 26.11 d.f. : 2 $p < .001$

PERCENTAGES

Length of Residence at Present Address	Status Areas 1A	2	3	1B	4	5	Total
1 to 2 years	45.3	39.9	17.0	55.4	34.4	41.0	39.9
3 to 6 years	42.2	28.1	27.7	27.7	23.8	31.6	29.3
7 to 10 years	7.8	15.6	19.1	9.7	24.6	17.9	16.5
over 10 years	4.7	16.4	36.2	7.2	17.2	9.5	14.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean Length of Residence	3.91	6.48	10.20	3.56	6.39	4.95	5.76

TABLE XXXXXXXV. LENGTH OF RESIDENCE AT PRESENT ADDRESS BY STAGE OF SUCCESSION FOR NEGRO RESPONDENTS.

Length of Residence at Present Address	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
1 to 2 years	14	44	101	56	215
3 to 6 years	7	29	81	41	158
7 to 10 years	1	11	31	46	89
over 10 years	2	9	19	47	77
Total	24	93	232	190	539

x^2 : 50.20 d.f. : 9 $p < .001$

PERCENTAGES

Length of Residence at Present Address	Stages of Succession Inva-sion	Infil-tration	Consoli-dation	Concen-tration	Total
1 to 2 years	58.3	47.3	43.5	29.5	39.9
3 to 6 years	29.2	31.2	34.9	21.6	29.3
7 to 10 years	4.2	11.8	13.4	24.2	16.5
over 10 years	8.3	9.7	8.2	24.7	14.3
Total	100.0	100.0	100.0	100.0	100.0
Mean Length of Residence	4.52	5.32	4.41	7.78	5.76

TABLE XXXXXXXIX. CONDITION OF STRUCTURE BY CORE AREA FOR NEGRO RESPONDENTS.

Condition of Structure	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Good	101	43.5	24	8.4	125	24.1
Fair	111	47.8	149	52.1	260	50.2
Poor or Dilapidated	20	8.7	113	39.5	133	25.7
Total	232	100.0	286	100.0	518	100.0
Percent Poor or Dilapidated		8.7		39.5		25.7

x^2 : 114.24 d.f. : 3 $p < .001$

TABLE XXXXXXXX. TENURE BY CORE AREA FOR NEGRO RESPONDENTS.

Tenure	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Own	190	79.5	181	60.3	371	68.8
Rent	49	20.5	119	39.7	168	31.2
Total	239	100.0	300	100.0	539	100.0
Percent Homeowners		79.5		60.3		68.8

x^2 : 21.89 d.f. : 1 $p < .001$

TABLE XXXXXXXXI. HOUSE VALUE BY CORE AREA FOR NEGRO RESPONDENTS.

House Value	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Less than 5,000	4	2.3	8	4.8	12	3.5
5,000 to 6,999	33	19.3	43	25.6	76	22.4
7,000 to 8,999	66	38.7	63	37.5	129	38.1
9,000 to 10,999	31	18.1	35	20.8	66	19.5
11,000 to 14,999	25	14.6	15	8.9	40	11.8
15,000 or over	12	7.0	4	2.4	16	4.7
Total	171	100.0	168	100.0	339	100.0
Mean House Value		$8,890		$7,990		$8,437

x^2 : 9.40 d.f. : 5 $.10 > p > .05$

TABLE XXXXXXXXII. MONTHLY RENT BY CORE AREA FOR NEGRO RESPONDENTS.

Monthly Rent	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Less than 40	0	0.0	12	10.7	12	7.5
40 to 49	4	8.3	15	13.4	19	11.8
50 to 59	22	45.8	36	32.1	58	36.3
60 to 69	19	39.6	39	34.9	58	36.3
70 or over	3	6.3	10	8.9	13	8.1
Total	48	100.0	112	100.0	160	100.0
Mean Monthly Rent		$56.53		$53.56		$54.44

x^2 : 6.56 d.f. : 3 $.10 > p > .05$

TABLE XXXXXXXXIII. EMPLOYMENT STATUS OF MALE HEAD BY CORE AREA FOR NEGRO RESPONDENTS.

Employment Status of Male Head	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Employed	168	70.3	178	59.3	346	64.2
Unemployed	28	11.7	43	14.3	71	13.2
Retired	10	4.2	5	1.7	15	2.8
No Male Head	33	13.8	74	24.7	107	19.8
Total	239	100.0	300	100.0	539	100.0
Percent Male Head Employed		70.3		59.3		64.2

x^2 : 13.99 d.f. : 3 $.01 > p > .001$

TABLE XXXXXXXXIV. OCCUPATION BY CORE AREA FOR NEGRO RESPONDENTS.

Occupation	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Professional	7	4.2	4	2.2	11	3.2
Manager, etc.	2	1.2	0	0.0	2	0.6
Clerical	6	3.6	4	2.2	10	2.9
Sales	6	3.6	1	0.6	7	2.0
Craftsmen	19	11.3	14	7.9	33	9.5
Operative	69	41.0	86	48.4	155	44.8
Service	37	22.0	28	15.7	65	18.8
Labor	22	13.1	41	23.0	63	18.2
Total	168	100.0	178	100.0	346	100.0
Percent White Collar		12.6		5.0		8.7

x^2 : 14.08 d.f. : 5 $.02 > p > .01$

TABLE XXXXXXXXV. EMPLOYMENT STATUS OF WIFE BY CORE AREA FOR NEGRO RESPONDENTS.

Employment Status of Wife	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Employed	79	33.3	88	29.8	167	31.4
Fulltime	45	19.0	55	18.6	100	18.8
Parttime	34	14.3	33	11.2	67	12.6
Not employed	158	66.7	207	70.2	365	68.6
Total	237	100.0	295	100.0	532	100.0
Percent Wife Employed		33.3		29.8		31.4

x^2 : 1.30 d.f. : 2 $.70 > p > .50$

TABLE XXXXXXXXVI. ANNUAL FAMILY INCOME BY CORE AREA FOR NEGRO RESPONDENTS.

Annual Family Income	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Less than 2,000	56	23.7	105	35.6	161	30.3
2,000 to 3,999	77	32.6	103	34.9	180	33.9
4,000 to 5,999	85	36.1	73	24.7	158	29.8
6,000 to 7,999	13	5.5	9	3.1	22	4.1
8,000 or over	5	2.1	5	1.7	10	1.9
Total	236	100.0	295	100.0	531	100.0
Mean Annual Income		$3,191		$2,676		$2,907

x^2 : 13.76 d.f. : 3 $.01 > p > .001$

TABLE XXXXXXXXVII. EDUCATIONAL ATTAINMENT BY CORE AREA FOR NEGRO RESPONDENTS.

Educational Attainment	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Sixth or below	27	11.9	81	28.8	108	20.8
7th to 9th	65	28.6	95	33.9	160	31.9
10th to 11th	50	22.0	57	20.3	107	20.9
12th	59	26.0	38	13.5	97	19.1
Some College	19	8.4	8	2.8	27	5.5
College Grad.	7	3.1	2	0.7	9	1.8
Total	227	100.0	281	100.0	508	100.0
Mean Grade Attained		10.02		8.22		9.02

x^2 : 39.54 d.f. : 4 $p < .001$

TABLE XXXXXXXXVIII. RELIGIOUS AFFILIATION BY CORE AREA FOR NEGRO RESPONDENTS.

Religious Affiliation	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Baptist	113	47.4	159	53.0	272	50.5
Methodist	50	20.9	36	12.0	86	16.0
Church of God	24	10.0	42	14.0	66	12.2
Episcopal	21	8.8	3	1.0	24	4.4
Catholic	8	3.3	6	2.0	14	2.6
Others	5	2.1	24	8.0	29	5.4
No affiliation	18	7.5	30	10.0	48	8.9
Total	239	100.0	300	100.0	539	100.0
Percent Episcopal		8.8		1.0		4.4

x^2 : 31.97 d.f. : 5 $p < .001$

TABLE XXXXXXXXIX. MARITAL STATUS BY CORE AREA FOR NEGRO RESPONDENTS.

Marital Status	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Married	192	80.3	222	73.9	414	76.8
Single	11	4.6	8	2.7	19	3.5
Widowed	20	8.4	32	10.7	52	9.7
Divorced	7	2.9	18	6.0	25	4.6
Separated	9	3.8	20	6.7	29	5.4
Total	239	100.0	3000	100.0	539	100.0
Percent Broken Home		6.7		12.7		10.0

x^2 : 7.56 d.f. : 3 $.10 > p > .05$

TABLE XC. PLACE OF BIRTH OF HEAD BY CORE AREA FOR NEGRO RESPONDENTS.

Place of Birth	East Core Number	East Core Percent	Middle-West Core Number	Middle-West Core Percent	Total Number	Total Percent
Grand Rapids	36	15.1	14	4.7	50	9.3
Michigan	17	7.1	14	4.7	31	5.8
North Central	41	17.2	11	3.7	52	9.7
South	136	57.2	255	85.2	391	72.8
Other	8	3.4	5	1.7	13	2.4
Total	238	100.0	299	100.0	537	100.0
Percent Head Born in South		57.2		85.2		72.8

x^2 : 58.03 d.f. : 4 $p < .001$

TABLE XCI. LENGTH OF RESIDENCE IN GRAND RAPIDS BY CORE AREA FOR NEGRO RESPONDENTS.

Length of Residence in Grand Rapids	East Core		Middle-West Core		Total	
	Number	Percent	Number	Percent	Number	Percent
1 to 2 years	5	2.1	8	2.7	13	2.6
3 to 6 years	37	15.5	68	22.8	105	19.6
7 to 10 years	26	10.9	53	17.8	79	14.7
over 10 years	170	71.5	169	56.7	339	63.1
Total	238	100.0	298	100.0	536	100.0
Mean Length of Residence		19.1		13.2		15.8

x^2 : 12.56 d.f. : 3 $.01 > p > .001$

TABLE XCII. LENGTH OF RESIDENCE AT PRESENT ADDRESS BY CORE AREA FOR NEGRO RESPONDENTS.

Length of Residence at Present Address	East Core		Middle-West Core		Total	
	Number	Percent	Number	Percent	Number	Percent
1 to 2 years	88	36.8	127	42.4	215	39.9
3 to 6 years	76	31.8	82	27.3	158	29.3
7 to 10 years	34	14.2	55	18.3	89	16.5
over 10 years	41	17.2	36	12.0	77	14.3
Total	239	100.0	300	100.0	539	100.0
Mean Length of Residence		6.5		5.1		5.8

x^2 : 5.80 d.f. : 3 $.20 > p > .10$

TABLE XCIII. INDICES OF HOUSING, SOCIOECONOMIC AND FAMILY CHARACTERISTICS BY STATUS AREA AND STAGE OF SUCCESSION.

VARIABLES	Status Areas 1A	2	3	1B	4	5	Stages of Succession Invasion	Infiltration	Consolidation	Concentration
Housing										
1. Mean Number of Rooms per Dwelling Unit	6.09	6.23	6.09	5.24	5.40	5.67	6.13	6.18	5.75	5.51
2. Mean Number of Persons per Dwelling Unit	4.33	4.37	4.46	3.72	5.07	5.13	4.88	4.35	4.68	4.69
3. Percent Single-Family Structures	46.9	78.1	74.5	28.9	62.3	55.8	75.0	71.0	56.1	54.8
4. Percent Poor or Dilapidated Structures	9.7	6.5	12.8	21.2	43.2	51.1	18.2	18.0	20.7	36.2
5. Percent Homeowners	76.6	82.0	76.6	53.0	62.3	64.2	83.3	81.7	62.9	67.9
6. Mean House Value	$12,007	$7,791	$7,943	$9,495	$7,669	$7,279	$8,774	$8,491	$9,291	$7,452
7. Mean Monthly Rent	$61.50	$55.05	$52.73	$59.21	$53.86	$46.67	$61.25	$54.59	$55.47	$52.48
Socioeconomic										
1. Percent Male Head Employed	70.3	71.1	68.1	54.2	63.1	59.0	70.8	65.6	67.7	58.4
2. Percent White Collar Workers	19.9	9.9	9.3	15.5	1.3	1.8	11.8	8.1	13.4	1.8
3. Percent Wife Employed	48.4	29.4	23.4	28.0	40.3	18.5	12.5	31.9	34.3	29.9
4. Mean Annual Family Income	$3,574	$3,197	$2,681	$2,771	$2,589	$2,695	$3,500	$3,144	$3,039	$2,546
5. Mean Grade Attained	11.12	9.52	9.95	8.73	7.97	8.07	10.30	9.33	9.62	7.92
6. Percent Episcopalian	4.7	9.4	12.8	2.4	0.0	1.0	8.3	8.6	3.4	3.2
Family										
1. Percent Broken Home	12.5	3.9	6.4	19.3	9.8	10.6	4.2	7.5	9.9	12.1
2. Percent Head Born in South	59.4	60.6	44.7	80.7	86.9	87.2	50.0	63.4	73.2	79.9
3. Mean Length of Residence in Grand Rapids	17.84	17.20	25.91	13.13	13.79	12.64	16.35	17.54	15.16	15.75
4. Mean Length of Residence at Present Address	3.91	6.48	10.20	3.56	6.39	4.95	4.52	5.32	4.41	7.78

TABLE XCIV. RANK ORDER OF INDICES FOR HOUSING, SOCIOECONOMIC AND FAMILY CHARACTERISTICS BY STATUS AREA AND STAGE OF SUCCESSION.

VARIABLES	Status Areas						Stages of Succession			
	1A	2	3	1B	4	5	Invasion	Infiltration	Consolidation	Concentration
Housing										
1. Mean Number of Rooms per Dwelling Unit	2.5	1	2.5	6	5	4	2	1	3	4
2. Mean Number of Persons per Dwelling Unit	2	3	4	1	5	6	4	1	2	3
3. Percent Single-Family Structures	5	1	2	6	3	4	1	2	3	4
4. Percent Poor or Dilapidated Structures	2	1	3	4	5	6	2	1	3	4
5. Percent Homeowners	2.5	1	2.5	6	5	4	1	2	4	3
6. Mean House Value	1	4	3	2	5	6	2	3	1	4
7. Mean Monthly Rent	1	3	5	2	4	6	1	3	2	4
Socioeconomic										
1. Percent Male Head Employed	2	1	3	6	4	5	1	3	2	4
2. Percent White Collar Workers	1	3	4	2	6	5	2	3	1	4
3. Percent Wife Employed	6	4	2	3	5	1	1	3	4	2
4. Mean Annual Family Income	1	2	5	3	6	4	1	2	3	4
5. Mean Grade Attained	1	3	2	4	6	5	1	3	2	4
6. Percent Episcopalian	3	2	1	4	6	5	2	1	3	4
Family										
1. Percent Broken Home	5	1	2	6	3	4	1	2	3	4
2. Percent Head Born in South	2	3	1	4	5	6	1	2	3	4
3. Mean Length of Residence in Grand Rapids	2	3	1	5	4	6	2	1	4	3
4. Mean Length of Residence at Present Address	5	2	1	6	3	4	2	3	1	4

TABLE XCV. INDICES OF HOUSING, SOCIOECONOMIC AND FAMILY CHARACTERISTICS FOR STAGES OF SUCCESSION BY CORE AREA.

VARIABLES	East Core				Middle-West Core			
	Invasion	Infiltration	Consolidation	Concentration	Invasion	Infiltration	Consolidation	Concentration
Housing								
1. Mean Number of Rooms per Dwelling Unit	6.35	6.41	5.98	6.32	5.57	5.52	5.49	5.41
2. Mean Number of Persons per Dwelling Unit	4.65	4.04	4.28	4.46	4.57	4.65	4.97	4.54
3. Percent Single-Family Structures	82.4	75.7	62.9	71.4	57.1	56.5	48.1	51.9
4. Percent Poor or Dilapidated Structures	20.0	7.5	9.0	3.6	14.3	50.0	36.9	40.9
5. Percent Homeowners	88.2	85.7	74.2	82.1	71.4	69.6	50.0	65.4
6. Mean House Value	$8,879	$8,822	$9,463	$6,867	$8,480	$7,307	$9,004	$7,575
7. Mean Monthly Rent	$55.00	$59.60	$55.24	$54.00	$63.33	$47.43	$55.61	$52.34
Socioeconomic								
1. Percent Male Head Employed	64.7	65.7	73.4	71.4	85.7	65.2	61.1	56.2
2. Percent White Collar Workers	18.2	10.9	13.2	10.0	0.0	0.0	12.1	1.1
3. Percent Wife Employed	11.8	31.4	39.0	25.9	14.3	30.4	29.0	31.0
4. Mean Annual Family Income	$3,353	$3,324	$3,238	$2,571	$3,857	$2,591	$2,811	$2,542
5. Mean Grade Attained	10.25	9.80	10.41	8.43	10.43	7.91	8.71	7.84
6. Percent Episcopalian	5.9	11.4	5.6	17.9	14.3	0.0	0.9	0.6
Family								
1. Percent Broken Home	5.9	7.1	7.3	3.6	0.0	13.0	13.9	12.3
2. Percent Head Born in South	41.2	52.9	64.5	44.4	71.4	95.7	83.2	85.8
3. Mean Length of Residence in Grand Rapids	19.09	20.59	17.42	22.71	9.71	8.28	12.56	14.55
4. Mean Length of Residence at Present Address	5.24	6.44	5.34	12.77	2.29	1.91	3.33	6.92

SAMPLE OF SCHEDULE

Human Relations Commission Survey

Interview No._____ Block No._____
Name of Interviewer_____ Date_____
Address of Respondent_____

Introduction: "How do you do? My name is _____. I represent the Human Relations Commission of Grand Rapids. We are doing a survey to obtain information which we feel will be very helpful in solving problems with which the city is faced. This survey should prove highly beneficial for the people in this area as wellas for the people in the entire community. Your assistance will be greatly appreciated. May I ask you first of all.....

1. How many families are living in this building?_____

2. How many people are living here in your family?
   _____Husband; _____Wife; _____Number of children (specify)

3. a. How many rooms does your family use?_____
   b. Do you rent out any rooms or have boarders? ___Rooms rented;___Boarders

4. How long have you lived at this address?_____

5. a. How long have you lived in Grand Rapids?_____
   b. (If less than 3 years) Why did you come to Grand Rapids?

6. Where were you born?_____ _____
   City State

7. a. If you were able to live in a different part of the Grand Rapids area, would you want to move? ___Yes; ___No; ___Don't know
   b. (If yes) Where? _____(specify location)
   c. Why would you like to move there?

8. a. (For Negroes only) Do you feel you have been kept from moving to a different neighborhood? ___Yes; ___No; ___Don't know
   b. (If yes) By what?

9. In your opinion, has living in this neighborhood for the past few years or so gotten better or worse? ___Same; ___Better; ___Worse; ___Don't know
   b. (If better or worse) Why?

10. What problems, if any, do you feel you have as a result of living in this area?

11. What is your church affiliation, if any? _____(specify)

12. What kind of work does the head of the household do?
    ___No male head; ____Unemployed; ___Employed; _____
    (specify job)

13. Is the wife employed outside the home? ___Fulltime; ___Parttime; ___No

SAMPLE OF SCHEDULE (CONTINUED)

14. Highest grade of schooling completed by head of the household._____

15. a. Do you own or rent? ___Own; ___Rent
    b. (If own) Approximate value of your house. _____
    c. (If rent) What is your monthly rent? _____

16. Approximately what is the yearly income of your family?

___ Under $2,000	___ $5,000 to 5,900
___ $2,000 to 2,900	___ $6,000 to 6,900
___ $3,000 to 3,900	___ $7,000 to 7,900
___ $4,000 to 4,900	___ $8,000 or over

17. Are you: ___Married; ___Single; ___Divorced; ___Widowed; ___Separated?

18. Respondent: ___Wife; ___Husband; ___Other (specify)

19. Race: ___White; ___Negro; ___Other

20. (Interviewer fills in) Condition of the structure.
    ___Good shape; ___Fair; ___Poor; ___Dilapidated