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this issue would not have been possible without the cooperation of *ronnie mason* and *george macleary*.

joyful yearly feasts which end Ramadhan, the Muslim month of feasting. How much more highly prized would rice be where no maize or cassava are grown? It would take an airplane or helicopter one five second pass to kill the average farmer's rice crop with herbicide. Preparation of land, growth, and harvest of rice where I live takes five months.

Shelter from the tropical sun and rain is essential. We build using thickly mudded wooden frameworks and grass roofs. If you include trips to the surrounding forest to cut, bundle, and carry home on his head 50 forty-pound loads of grass and several hundred small trees, it takes a man three to six months to build in his spare time a four room home for his family. Once they have moved in, neighbors, man, and wife all co-operate to "plaster" the inside walls using specially chosen river bottom mud with skill, pride, and care. A man may later sell a bit of maize for enough money to hire a carpenter to make him a door of local hard wood.

Once someone's roof caught on fire. Before I could understand what was going on fifty neighbors had the smouldering roof torn to pieces and drenched with water from the village spring. In our closely spaced village fire holds unspeakable terror. A single napalm canister dropped anywhere in our village would incinerate all houses within minutes.

Children are the center of joy and affection in my village. The women walk fifteen miles to the two-room, six-bed delivery clinic when their time comes. Mother and child return those fifteen miles by foot within a week, the child tied to the mother's back or slung in a flowered cloth at her breast. So begins the watchful, gentle observation and acceptance of growth which is intimately linked up with death. The infant mortality rate in Tanzania is still nearly 40%. Those who survive the first five years have a much better chance. It must be particularly bitter to see your child, who has escaped gastroenteritis, malaria, and pneumonia for five years, snuffed out by a twenty year old helicopter gunner's momentary panic or by a piece of shrapnel the size of a penny.

Meaning of Cultural Subsistence

Just as at the center of physical subsistence lie food, shelter, and children, so a people cannot subsist culturally failing certain things. In my village these things are values such as respect for old age, nonviolence, and democracy. These values are rooted in the ancient idea of the extended family which is common to many peasant societies throughout the third world. What happens to these values when one-third of the rural population of a country (as is nearly the case in South Vietnam) are uprooted and experience dislocation?

Once more I believe my stay in East Africa has given me valuable insight into this problem. Just three miles away from my village is a large sisal estate whose laborers are mostly migrants from all over East Africa. They left their tribal homes to seek wage labor on the average five to ten years ago. Six hundred of them live with their families in a camp whose physical conditions, though much better, approximate the conditions of a refugee camp. The contrast between the rhythm, order and style of life in my village and that in the labor camp is striking. Violent crime, which is unheard of where I live, is frequent in the camp. Elders in my village report that old age is not respected as it should be by the youthful laborers and their children. There is minimal and ineffective self government among the sisal laborers with a low percentage of participation in camp meetings. Participation in weekly village meetings is quite high in my village as the tradition of "African democracy" would lead one to

ANALOGIES OF VIETNAM IN EAST AFRICA VILLAGE LIFE

ben wisner

Limits of Analogy: Tough- versus Tender-mindedness

I have lived in an east African village of one hundred farmers and fifty children for a year and a half. Throughout this period the association of daily village life and weekly or biweekly news from Vietnam has made it clearer and clearer to me what the central evil of that war is. It is the destruction not only of human life but of the meaning of that life. Because the "underdeveloped" or "third world" countries have much in common, the meaning which is dying in rural Vietnam is very much the same meaning which lives in rural East Africa. I am haunted by the vision of the death of meaning in Vietnam which my life here has enabled me to imagine, but that is not all. I am haunted by the thought: "It could be happening here". I want to share that vision. I will not discuss the political or military arguments for or against American involvement but let village life speak for itself as it has with ever increasing shrillness spoken to me.

Meaning of Physical Subsistence

Food is the center of the subsistence farmer's life. Although our major food crops are maize and cassava, we too grow rice where small valleys are flooded seasonally. The land is cleared by hand using bushknife and hoe. The land is tilled by hand. The rice planted by hand. Transplanted by backbreaking labor. The rice is guarded all day from birds and baboons by women who sit in small huts with their children where they cook the large noon meal which their husbands eat when they come in from the maize fields. The rice harvest is small but highly prized as the basis of the

expect. Debate is lengthy and free-wheeling. Such meetings sometimes last from 8 p.m. until two or three in the morning. If voluntary migration destroys the traditional values of a peasant society to this extent, what must forced evacuation from one's home be doing to nearly one-third of South Vietnam's peasant farmers?

Transcending Physical Subsistence

The idea of rural development is to transcend the limits of mere physical subsistence by exploitation of local natural and human resources. Particularly in a country where large sums of money are not available for large scale exploitation of the former, the latter human resources take on great importance. Small groups of farmers must see the point of co-operating first on some more obvious self help projects such as dam construction, later on more vital activities such as communal food cropping. Anyone who has worked in community development knows that even under optimum conditions such co-operation is difficult to foster.

It is nearly impossible under conditions of civil disintegration as witness the frequent outcries and gestures of despair uttered over recent months by volunteers in South Vietnam.

From my personal experience I know best the process of water resource development. My neighbors and I have worked for two three month periods separated by five months of rain and have just now completed a one million gallon capacity masonry weir. Stone for construction was broken by sledge hammer and carried to the damsite by truck when we could borrow one, by hand when we could not. Sand was dug at the river and transported in like fashion. Now that we have completed it, our dam will provide us with fish protein in our diet, cash from off-season, intensive vegetable farming downstream, and domestic water for a new village site, which though surveyed and chosen two years ago, has been unpeopled for lack of nearby water. Even on this small scale water resource development along can open up so many opportunities for transcending the narrow limits of subsistence farming. On a regional scale the potential is even greater, as Gilbert White has pointed out in his study of the Mekong river basin in South East Asia. I am haunted not only by the thought that a single thousand pound bomb could erase the one year's work of our hands, but by the vision of vast water resources in South East Asia made inaccessible or, even worse, positively harmed by defoliation of watersheds or pollution.

Transcending Cultural Subsistence

Physically it is not enough for an organism just barely to maintain itself in the face of destructive forces. Culturally it is not healthy that a set of values should only just hold their own against disruptive forces. In the past ten years some Africans have become aware that the values which they judge have universal significance should be extolled aggressively and offered as the African contribution to the human community. So speak the early writings of Senghor, Kaunda, and Nyerere. The ideas of "African socialism" and "African humanism" have intrinsic worth and deserve more than mere subsistence against the eroding influence of westernisation. Africans have a voice and should be listened to.

Once again I am haunted by the association of my East African experience and what I have heard and read about South East Asia. There is no reporter who denies that Americanisation is proceeding with astronomic speed in South Vietnam. If the voice of African wisdom and experience is as handicapped as it is where Western European influence is only moderate,

how can the voice of South Vietnamese wisdom be saved from progressive obscurity? Each developing country has the right to follow out the continued evolution of its autonomous cultural forms even when these influence economic organization. Having lived for two years in Africa, I can say no other than "Africa for the Africans". I believe this statement can be changed with little abuse of logic into "Vietnam for the Vietnamese".

What can we do?

The message of these preceding "analogies" is this. The delicate physical and cultural frameworks of the lives of at least two-thirds of the world's people can be and are being destroyed blindly by the unbelievably powerful influence of American military and economic presence. Nearly everywhere in the world the idea of "American interest" has entangled developing countries with American military and/or business. Furthermore "nearly everywhere" includes America itself where the American Negro, Mexican-American, Puerto Rican, and American Indian may do more than just subsist physically but do not transcend mere cultural subsistence.

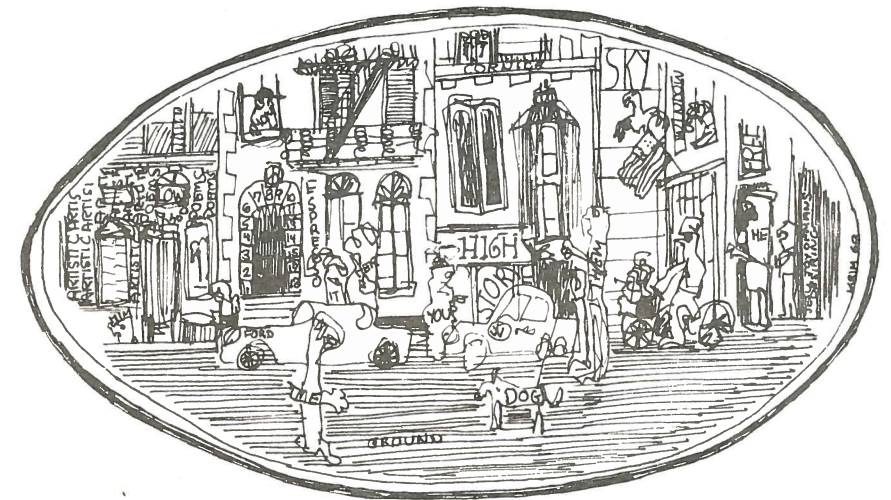
I have not argued this message rigorously. However if you are made uneasy by even the possibility that what my life in an African village has lead me to conclude is true, you have a responsibility to follow up my remarks on your own. Countless groups of scholars, students, and laymen with experience in the third world are currently carrying on research into the effects of American military and economic presence in that world. "The Committee of Returned Volunteers", "Center for the Study of Democratic Institutions", "American Friends Service Committee", and "Students for a Democratic Society" are a few among these American groups. Even among the best of these groups there is some fuzzy thinking and over emotional analysis. But the American State Department white papers are no better in this respect, and in any case each individual must exercise his own intelligence, compare what is said with his own experience (here the returned volunteer has an advantage), and make his own decision.

Once informed, one must decide. Once having decided, one must act. This is the necessary sequence of moral judgment of which men alone are capable, in violation of which a man becomes now machine, now beast, even as circumstance dictates, never a free human agent. There is a moral subsistence failing which human existence withers as surely as at the hands of physical or cultural deprivation. Many Americans live as shallow shells far below the level of moral subsistence. They never make a personal decision and act in the sense I have described. This is the effect of American military and economic influence when it is reflected back from across the sea. In the face of this we Americans must not only subsist morally, but we must transcend moral subsistence by committing ourselves to action with the sense of urgency which a farmer feels when his crops are threatened.

conformists, flower children, students, and un-patriotic Americans, or, by reversing my coin, all persons who consciously reject American middle class materialism, in favor of a more natural, real, and meaningful set of American values.

The BAE culture group may be placed in the context of two variant models of urban structure. The first is one which defines the structure of a city in respect to the cultural characteristics of the population, particularly its residential location within the urban region. For want of a better term, I will call this the neighborhood-ghetto model. The city is viewed as one vast collection of culture groups, each living in its own neighborhood-ghetto, with each culture group supporting certain activities which are unique to its culture within the neighborhood-ghetto. In its crudest form, this is Sjoberg's model of the pre-industrial city: various culture groups in numerous neighborhood-ghettos, or 'quarters' surrounding a central activity core, which in a modern urban context would be the central business district.¹ Most urban geographic research has utilized this model in the analysis of ethnic minorities in American cities.² The model makes two assumptions: 1) that the location of a culture group within a city is random, and 2) that some culture groups may exist in certain cities and not in others; randomization of specific culture groups within a selected urban network.

The second model is a classic one, but recently has become neo-classic. It has its basis in economic location and central place theory, and is commonly referred to as the ring-sector theory of internal urban structure.³ It assumes that there is an orderly relationship and arrangement of functional districts within a city, as well as an increasing-articulation of more specialized functions with a corresponding increase in urban population. This model also assumes two conditions: 1) that there is a set of linkages between urban functional areas in space and through time, and 2) that critical thresholds exist for the articulation of all urban functions as specialized districts within cities.



CONEY ISLAND OF THE MIND AND RELATED URBAN DISTRICTS

a. j. Krim

Introduction

To construct a rational, explicative model which uses at its random data the spatial distribution of people who regard the meaning and purpose of their lives as ultimately valid, contrasted to the established and normal culture of the population that they reject, seems tragic, absurd, and ironic. To construct a lengthy clausal sentence is perhaps tragic, absurd, and ironic. Moreover, to construct any mental structure out of random data is seemingly tragic, absurd, but not as ironic in the eyes of the creator. All of these mental convolutions bring me to the intent of these introductory remarks; to explain the location of bohemian-anti-establishment culture areas in American cities in terms of existing models of urban geographic structure. The findings of this extended essay are meant to be highly inconclusive, and my thoughts are nothing more intended than professional observations on regularities that I have patterned from the available data.

Construction of the Models

The power of any model is contingent upon a definition of the character of the subject matter under investigation. In my case, this bounding process is both intuitive and arbitrary. The bohemian-anti-establishment population, (hereafter referred to in symbolic form as BAE) is most often defined by the mainstream of American culture which it repudiates: Bohemians, beatniks, folkniks, hippies, leftists, anarchists, radicals, painters, poets, perverts, intellectuals, non-

This paragraph will entail the application of the subject matter to the structure of the two models I have just presented. In fact, so obvious are the results (that the neighborhood-ghetto model views the BAE culture area as just another neighborhood-ghetto within the city, and the ring-sector functional model considers the BAE district to be related to other functional areas of the city, as well as a functional area that only appears in cities above a critical size) that I will eliminate the ensuing discourse of this paragraph.

Characteristics of Bohemian-anto-Establishment Culture

I now must qualify my generalized statements about the characteristics of the BAE culture in regard to its nature through time. The BAE culture is a product of two subcultures in American society: 1) the university-student subculture, and 2) the subculture of the artist-radical-intelligentsia. Neither is mutually exclusive, however, each may exist as a particular sub-system within the larger American culture.

In historical perspective, the documentation of the university-student subculture parallels the emergence of the college-university institutional system within American society during the late nineteenth century.⁴ A far greater difficulty is encountered with the documentation of the artist-radical-intelligentsia subculture. The most effective means of describing this group is through a series of schools of thought and action which in turn break into 'generations', in the literal sense of the word. Most certainly, examples of literary and artistic schools during the nineteenth century, such as the New England Transcendentalists are manifestations of this subculture. However, whether there were distinct areas in American cities occupied by this culture group is open to investigation. Two important questions remain unanswered: 1) have there been changes in the ratios of the artist-radical-intelligentsia culture in terms of the general American culture, and if so, under what conditions, and 2) what were the spatial manifestations of this subculture at the internal scale prior to 1900?

Due to either historical egocentrism, or an absolute change in the nature of American culture, the recognition of the artist-radical-intelligentsia BAE group has been well documented only since the early twentieth century.⁵ Utilizing the classification of the BAE culture in Reader's Guide to Periodical Literature (1890-Present) three terms have been applied to the BAE culture group since 1900: 1) bohemian; c.1905-35, 2) beat; 1957-66, and 3) hippy; 1966-Present. The BAE culture group was also identified with Greenwich Village, New York City from c. 1915-Present. The lack of a generic term for the BAE culture during the period from 1935-55 reflects the disappearance, decline and stagnation of the culture during the Depression and Second World War for reasons I will discuss below. Most certainly BAE culture existed during this latter era, but its impact was negligible in terms of national American culture. For example, the term anarchist bohemianism was applicable to BAE culture during the late 1940's, but the term never achieved popular recognition.⁶

BAE Districts: Artist-Radical-Intelligentsia

The second half of this essay, will proceed to document the spatial nature of the BAE culture group in American cities. From the data I have been able to gather, the BAE district appears to have two variant forms. The first is related to the college-university function, and the second

to the commercial functions of the central business district. It is the second of these two forms that is the older and more recognizable as the popular image of the urban BAE district. Both types, however, have similar groupings of functions, usually agglomerated along one street or at a nodal intersection within the BAE district (Table I). The crucial difference between the two types lies in the nature of the population served. Or conversely, the amount and type of population needed to support the range of functions and activities listed in Table I.

As I have noted above, it is the second of the two BAE district types that first appears in American cities as a recognizable, distinctive functional area. The emergence of the district is related to population thresholds of the specific city under consideration; that is, the rank of the city within the urban hierarchy, as well as a more general population threshold of the American culture. Within the context of urban internal structure, the BAE district is linked to the high income retail and residential areas of the central city. This is a function of the relationship between high income groups, with the educational, monetary, and cultural assets, and the BAE group who are engaged in the 'production' and sale of items and services which require education, culture, and surplus income. This would include such 'products' as paintings, poetry magazines, and satirical theatre revues.

The BAE population seeks low residential and commercial rents, but the need for spatial proximity to the high income market, as well as a central urban location within the metropolitan region determines a rather specific location. Hence, the BAE district emerges out of the high income retail-residential sector, along the transition zone between the older portions of the high income zone, the edge of the central business district, and a low income residential area. The district usually expands in the direction of the low income sector, where low rents offer opportunity for inexpensive housing and real estate speculation. The central core of such BAE districts is often a nucleus of older, high income residential structures which have remained as a relict feature of a former period when the same area was in the primary direction of high income expansion. Thus the district is often 'restored' by the BAE population working with architecturally superior structures having great aesthetic quality in terms of BAE values. In any case, the presence or absence of relict high income structures will lead to a general rehabilitation of the area by the BAE group. This phenomenon becomes more apparent in the latter stages of the district's evolution, as the BAE culture attracts would-be converts and pseudo-BAE individuals who generally have middle class incomes sufficient for real estate renewal. The end result of the process is that the low income residents are forced out by high rents and by the conversion of residential structures for commercial purposes.

The population threshold needed to support a BAE area of the type described above is so high that only the largest urban centers in the United States and Canada have evolved this type of BAE district as a distinctive functional area of the central urban core. In fact, prior to the late nineteenth century the threshold level was so restrictive that the American BAE culture apparently existed as a portion of the general Western European bohemian-intelligentsia located in Paris on the Left Bank (Latin Quarter).⁷

As a result of the restrictive threshold discussed above, and national focus of the period, the first bohemian colony appeared in New York City just before the turn of the twentieth century centered around the remaining high income residential area of Washington Square, between Fifth and Sixth avenues and Fourth Street.⁸ This was the center

TABLE I

General Types of Commercial Functions

found in

Bohemian-anti-Establishment Districts*

Antique Stores (often in high income retail sector)
 Art-Foreign Film Movie Houses
 Art Galleries (often in high-income retail sector)
 Astrology Stores (late 1960's)
 "Design" Furniture Stores (Scandinavian)
 Ethnic-Foreign Bars and Small Restaurants
 Experimental and Satire Revue Theaters
 Fine Jewelry-Silver Work Shops
 Folk Coffee Houses (early 1960's)
 Foreign Book and Journal Stores (university-student)
 Foreign Nationality-Culture Stores (e.g., African, Indian)
 "Head" Shops (late 1960's)
 Health-Nature Food Shops
 Ice Cream Parlors
 Jazz Points-Clubs (1950's)
 Light Show-Dancing Entertainment Halls (late 1960's)
 Musical Instrument Stores-Repair Shops (folk-early 1960's)
 Paperback Book Browsing Stores
 Photographic Studios-Equipment Supply Stores (university-student)
 Poetry-Literary Magazine Stores
 Poster-Button Shops (late 1960's)
 Radical Headquarters
 Sandal and Leather Shops
 Secondhand Book Stores (university-student)
 Secondhand "Found Object" Stores (1960's)
 Specialty-Mod Clothing Shops (1960's)
 Specialty Record Stores (university-student)
 Stereo-Sound System (Hi-Fi) Phonograph Shops
 Tourist Trinket Stores-with Incense (late 1960's)
 Underground Press (Newspaper) Offices (Late 1960's)

*Data derived from personal observation and advertisements in BAE newspapers such as: Village Voice (New York), East Village Other (New York), Broadside (Boston), Chicago Seed, Los Angeles Free Press, Oracle (San Francisco), Harvard Crimson, Chicago Maroon (University of Chicago), and Berkeley Barb (University of California, Berkeley). Functions are those of the period 1955-1969.

of American artistic and intellectual activity in the 1880's and 1890's with such residents as Henry James, Winslow Homer, and Mark Twain. However it was not until the period of the First World War that the Washington Square area became the commercialized BAE district known as Greenwich Village and associated in the popular mind with bohemian culture.⁹ During the 1920's the area was developed by real estate speculators because its location midway between the financial district to the south and the expanding retail district to the north provided the ideal location of "charm" and "quaintness" for the middle class professionals with bohemian tastes.¹⁰ Greenwich Village bohemian culture centered around such deviant behavior as free love, Freudianism, artistic realism (Ashcan School), and the independence of women.¹¹

A similar development also occurred in Chicago during the same period, although at a reduced scale. Towertown, as the BAE district became known, was the center of the Midwestern artistic movement with such figures as Carl Sandburg, Edgar Lee Masters and Sherwood Anderson.¹² After the First World War this area around the old Chicago Water Tower was developed in a similar manner to Greenwich Village by realtors for the middle class bohemian market.¹³ Towertown displayed the same functional linkages as Greenwich Village, being located on the edge of the high income Gold Coast district to the east, the low value commercial central business district functions to the south, and to the west by a low income tenement area. Expansion of the district into the low income area occurred during the mid-1920's, replacing Italian populations (the same group affected by Greenwich Village expansion) by forcing up rents.¹³

As far as I have been able to determine, only New York and Chicago developed articulated BAE districts during the 1920's, although most certainly bohemian activity was well known in the French Quarter of New Orleans and the Barbary Coast of San Francisco.¹⁴ The growth of both Towertown and Greenwich Village is synchronous with the commercialization of the districts for the middle class bohemian market. This in turn, was a reflection of the urban prosperity of the 1920's, indicated by increasing female independence through education and a rise in living standards which provided leisure time and surplus income.¹⁵ There was also a truly genuine emergence of American intellectual life, separating from European values during this time, which most certainly provided a framework for bohemian culture at a national level.

The general artistic-intellectual florescence that evolved during the 1920's was severely restricted by the economic depression of the 1930's. This economic stagnation manifested itself at the local urban scale by the disappearance of Towertown in Chicago, and the curtailment of activity in Greenwich Village.¹⁶ Greenwich Village continued as the national center of bohemian culture, but most of its intellectual creativity had roots in preservation of achievements made during the 1920's.

The correlation between economic stagnation and the attrition of local BAE districts is not a random one; for with the reduction of disposable, surplus income, the market for bohemian products, such as paintings and literary publications also was reduced. It seems clear as well that the primary factor in BAE district expansion and growth is the speculative activity of the real estate market within the BAE district, and this type of activity was all but halted by the effects of the Great Depression. In large measure, it was not until the post-World War II decade that the economic prosperity of the 1920's was again achieved. Thus, not until the 1940's and early 1950's does the expansion of the BAE culture become spatially evident once again in American cities.

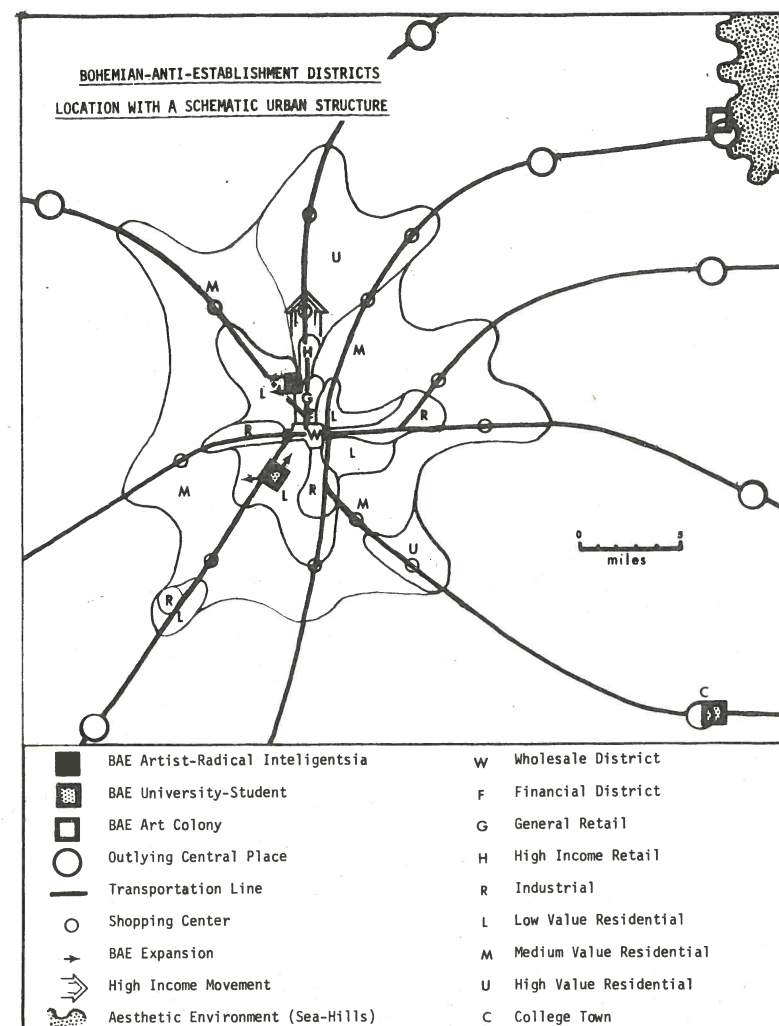
After the Second World War a renaissance of bohemian culture produced a number of distinctive BAE districts in American cities, although correspondence with rank in the urban hierarchy seems skewed along regional lines. The renaissance had its beginnings in the late 1940's in San Francisco, a new center of BAE culture at the national level.¹⁷ By the mid-1950's the BAE or beat culture had replaced the vestiges of the older bohemian culture in the two national centers; New York's Greenwich Village and San Francisco's North Beach.¹⁸

The San Francisco development of BAE culture occurred along traditional functional linkages, on the east edge of a high income district, the older central core, with expansion into an Italian low income residential area. The North Beach district was centered around Columbus Square for commercial functions. However, there were significant outlying BAE colonies in Monterey-Carmel to the south, and Sausalito-Pt. Reyes to the north, as well as the university-student BAE district along Telegraph Avenue in Berkeley (University of California).¹⁹

Greenwich Village retained its position as the primary American BAE district and underwent a real estate renewal experience very similar to that of the 1920's with the construction of high rise apartments in the Washington Square area for the bohemian-beat middle class professionals, such as teachers and those engaged in advertising and entertainment.²⁰ Although the high income district had moved quite far up Fifth Avenue by the 1950's, Greenwich Village retained its locational stability due to historical inertia, and the growing importance of New York University. The New School of Social Research, and other educational facilities.²¹ These institutions had been in the district since the 1920's, but the rise of the college population (an index of middle class prosperity) acted as a strong anchoring agent for Greenwich Village by the mid-1950's.

A new life style developed, and the affluence of the 1950's became manifest in the founding of several national BAE publications: *The Village Voice*, *Evergreen Review* (both Greenwich Village), and *The City Lights Press* (San Francisco). Greenwich Village emerged as a major experimental theater center, as well as the focus of the jazz and later folk coffee house, with emphasis on free verse poetry read to jazz background. New York's Beat movement produced a series of new writers, such as Norman Mailer, Gregory Corso, and new artists such as, Mark Rothko, William de Kooning, and Jackson Pollack. Greenwich Village was also a center of folk music interest and creation from 1955-65, although the roots of this phenomenon can be traced back to New York socialist-radical movement of the late 1930's.²² San Francisco soon became the recognized center of the beat literary cult, with such notables as, Henry Miller, Jack Kerouac, Allen Ginsburg, Lawrence Ferlinghetti, Kenneth Rexroth, and Alan Watts, in addition to a general fascination with Zen Buddhism.²³

During the 1950's specialized BAE districts also appeared in several large American cities. The location of all of these areas conformed to the functional linkages that had been evident in New York and Chicago during the 1920's. All emerged along the inner city edge of the high income retail-residential area, bordered by low value central business district activities, and expanding into low income residential districts: Chicago's Old Town, just north of the former Towertown area (which had become a cabaret district known as Rush Street); Boston's Beacon Hill, focussed along Charles Street; Philadelphia's Rittenhouse Square-Walnut Street; Washington's Georgetown; and St. Louis' Gas Light Square along Olive Street.²⁴ All of these districts underwent real estate upgrading similar to that discussed for Greenwich Village. In the case of Boston, Philadelphia, and Washington, this real estate renewal involved the



rehabilitation of relict high income residential structures from the early nineteenth century, which produced a certain atmosphere of historical restoration to the BAE district.

The BAE District and the Myth of Urban Renewal

The growth and expansion of the BAE districts during the 1950's was seized upon by the humanist urban intellectuals such as Jane Jacobs and Victor Gruen, both residents of Greenwich Village, as the positive model of modern American urban life and an archetype of self generating urban renewal in a period of urban death, blight and decay. They utilized the rehabilitation of BAE districts, such as Greenwich Village and North Beach, as applicable in restoring other low income areas of the central city into vital neighborhoods.²⁵ However, they overlooked the fact that BAE districts were essentially middle and upper class in their income structure, and that the multifunctional street life, the "Volk Strasse" they so admired, was a product of specialized commercial and institutional activity at the metropolitan and national level. What was perceived as a low income residential neighborhood was, in fact, just the converse; a high income retail district. This misconception developed because the BAE was expanding into low income minority residential neighborhoods, producing a temporary situation of ethnic urban neighborhood life on the side streets. This disappeared as soon as rents went up thereby forcing the ethnic poor out as soon as the buildings were rehabilitated for middle class clientele or commercial use.²⁶

BAE Districts: University-Student

Up to this point in my discussion of BAE districts I have dealt with the second of the two postulated BAE district types; the artist-radical-intelligentsia area which is a threshold function of the urban region and related to other specialized functional districts of the city. Attention must now be turned back to examine the university-student BAE district in the urban context, which during the 1950's began to assume increasing significance with the rise of American mass college education. Unlike the central city BAE district, the location of the university-student BAE area is not overtly linked to the urban structure by a set of functional relationships. Its location appears to be a random one, in that the location of the related college or university institution is random. This random spatial location of the college-university institution is a product of two conditions.

First, population thresholds capable of supporting a college-university are not directly related to urban size, but rather tend to function at some regional level. Spatial proximity to clientele is not a critical factor, since the clientele (students) reside within the college-university area; campus dormitories and fraternity houses. Thus, the location of the college-university is not a strict function of urban size, and may in fact be located in rural areas with an urban-based student body living on or near the campus, but with middle and high income potential from parental sources.²⁷

Second, historical inertia in the form of substantial investment in capital overhead is not easily mobile and there is a low profit return on investment.²⁸ This situation often forces the college-university institution to remain locked into its original site location, which in most cases was in a low density, high income residential area, or in a rural town within economic travel distance to metropolitan centers.

Subsequent growth of the city may radically alter the surrounding urban environment, but because of the physical and financial restrictions upon its spatial mobility, the institution cannot opt for a more favorable urban location. Thus, the present series of crises facing many American urban colleges and universities, with the institution surrounded by decaying residential districts, with expansion into these low income areas producing serious political and social consequences, such as with Columbia University in 1968.

Hence, while the location of the college-university was originally a functional site in respect to the contemporary urban structure, its site at present often appears to be random when examined in its present urban context. In this respect the growth and development of a student-university BAE district conforms to the neighborhood-ghetto model presented earlier.

The appearance of a university-student BAE area is related to the size and type of university or college in question. This makes it extremely difficult to predict and classify the university-student BAE district at a similar degree of rigor that I have used in delimiting the functional artist-radical-intelligentsia BAE district. The development of university-student BAE districts is generally associated with relatively large, liberal colleges and universities. However, there are two qualifying factors to this generalization.

First, there is a sliding threshold ratio between the size of the college or university and the size of the urban place within which the institution is located. The larger the urban place, the larger must be the size of the college or university in order to produce a distinctive university-student BAE district in close proximity to the institution, rather than having the specialized functions, such as book stores, subsumed within the functional structure of the central business district. This is why colleges and universities in small towns, such as Dartmouth in Hanover, New Hampshire, develop ancillary collegiate functions, which towns of such limited size could not otherwise support.

Second, the term liberal is highly relative in respect to the contemporary culture or city, as well as the educational orientation of the college or university in question. Not all liberal arts colleges or universities are associated with anti-establishment student bodies, and the college or university which does have an anti-establishment student body during a certain time period is not necessarily associated with this culture group at all times in its institutional history.

With these qualifications in mind, I now return to a more systematic discussion of the university-student BAE district in the urban context. The rise of mass college education in the United States and Canada after the Second World War generated a large number of distinct university-student BAE areas in American cities. In many cities, these existed quite independently of established BAE districts of the functional, artist-radical-intelligentsia type presented earlier. The existence of such university-student BAE districts prior to the Second World War appears to have been rather limited. There are, to be certain, the qualified cases of the traditional college or university town, such as Princeton, New Jersey - Princeton University; Ithaca, New York - Cornell University; and Champaign-Urbana, Illinois - University of Illinois. Even in these qualified cases, the association with BAE culture was not always implied.

Perhaps the oldest, strictly university-student BAE district is that associated with Harvard University in the Harvard Square area of Cambridge, Massachusetts. The bohemian character developed in association with

the existing university functions in Harvard Square sometime prior to the First World War, although direct reference is difficult to obtain.²⁹ Similar university-student BAE districts which developed prior to the Second World War are those associated with Columbia University around Morningside Heights in New York City, and the University of Chicago in the Hyde Park neighborhood of Chicago.³⁰ Urban colleges specializing in the arts, also initiated the growth of semi-bohemian districts in the pre-Second World War period. This appears to be true in respect to the New England Conservatory of Music in Boston's Back Bay, and to the Rhode Island School of Design - Brown University - Pembroke College on College Hill in Providence.³¹ The lack of such university-student BAE districts prior to the Second World War apparently is a reflection of the character of the student culture during the period, which was conformist and establishment in its values, as compared to the cultural style of the bohemian life of the times.³²

During the 1950's the increase in college and university enrollment and the liberalization of student cultural values generated university-student BAE areas in most large American cities. As I mentioned above, several of these districts were distinct from the established functional BAE districts. This was true in such cases as Philadelphia, with the development of the student-university BAE area around the University of Pennsylvania in West Philadelphia, and in Washington with the student-university BAE district associated with George Washington University in the Dupont Circle area. Far more common, however, was the emergence of student-university-BAE areas in cities lacking the traditional bohemian district, such as in Minneapolis with the University of Minnesota, in Seattle with the University of Washington, in Cleveland with Western Reserve University, and in Rochester with the University of Rochester.

The BAE District: The Present Urban Forms

Viewed as urban articulations of the same BAE culture groups, the occurrence of artist-radical-intelligentsia and university-student districts in American cities does not conform to the expected rank-size distribution with the urban hierarchy, in terms of the present patterns that I have been able to discern. There is a notable lack of both types of BAE districts in the South and Southwest, at least none that function at the national level. There is also an absence of the functional, artist-radical-intelligentsia BAE district in several large metropolitan areas of the North and Midwest; such as Detroit, Pittsburgh, Baltimore, Montreal and Milwaukee; as well as several important lesser sized cities such as Minneapolis-St. Paul, Kansas City, Indianapolis, Louisville, and Albany-Troy-Schenectady. Thus, by the 1960's it becomes evident that the BAE district is localized in certain established national regions and specific cities, particularly in respect to the urban network of the Northeast Manufacturing Belt (Chicago-Boston), as well as the Pacific Coast. Some of the anomalies may be explained by a certain type of shadowing effect with a large, liberal university or college located just outside a metropolitan area. This perhaps is the case with the University of Michigan at Ann Arbor in respect to Detroit, the University of Wisconsin at Madison in respect to Milwaukee, and the University of Massachusetts-Amherst College at Amherst in respect to Springfield.

During the mid-1960's a generational division emerged between the older beat culture and the hippy youth culture. The latter was far more overt and commercial than the internal, intellectual beat culture of the 1950's.³³ The hippy culture also gained much of its support and adherence from the student oriented population, both high school and college, which had increased substantially by the early 1960's.

The division between the two BAE culture generations, the beat and the hippy, was expressed within the existing structure of several functional type BAE districts in larger cities. This was most noticeable in New York and San Francisco, the two established centers of BAE culture since the Second World War, where bifurcation of the BAE districts took place. In New York, the East Village became a distinct area of the new hippy culture, consciously opposed to the older, established beat culture of Greenwich Village.³⁴ Likewise in San Francisco a hippy culture emerged around University of San Francisco in Haight-Ashbury district, leaving the beat area of North Beach to its own quiet ways.³⁵

For the most part, BAE culture areas of the central city, functional type, tended to expand in several cities which had developed such districts during the late 1950's. The hippy culture with its overt, chauvinistic style often led to a certain carnival, tourist atmosphere in many BAE areas during the late 1960's, which prompted more than adequate coverage by the newsmedia.³⁶ This tendency has distorted my perception of the exact spatial nature of the BAE culture at a national level, since there is far more data at hand in the last five years than for previous periods of similar duration.

The expansion of established BAE areas has occurred with Boston's Beacon Hill-Back Bay area, Chicago's Old Town-Lincoln Park area, and Philadelphia's Rittenhouse Square-Walnut-Water Streets area. Two new BAE districts of national importance emerged during the mid-1960's; those of Los Angeles and Toronto. Both were located according to the traditional set of functional linkages along the high income sector; Toronto's Yorkville near Bloor and Yonge Streets, and in Los Angeles along Sunset Boulevard - The Strip, and in West Hollywood along Fairfax Avenue.³⁷ There had also been a beat colony located along the Santa Monica coast in Venice during the late 1950's, but local opposition had forced its closing, perhaps a manifestation of its poor functional relationship within the structure of metropolitan Los Angeles.³⁸ Cincinnati also developed a quasi-BAE district in the Mt. Adams area near the city Art Museum, but separated from the high income sector of the central business district.³⁹ Detroit's Plum Street BAE district emerged in the 1960's, but remained secondary when scaled with the BAE university-student areas around Wayne State University and in Ann Arbor - University of Michigan.⁴⁰

The articulation of BAE culture by the end of the 1960's demonstrates a well developed hierarchy at a national level in a limited number of large American cities. The two national centers at this time are New York and San Francisco. In New York, the BAE culture areas consist of the Greenwich Village - East Village center, the Columbia University student area, and semi-BAE districts in Brooklyn Heights and in Hoboken, New Jersey. In San Francisco the BAE districts are those of North Beach and Haight-Ashbury, with a university-student area along Telegraph Avenue in Berkeley around the University of California.

There are also a number of significant secondary national BAE culture centers. These include Chicago's Old Town and the university-student area in Hyde Park - University of Chicago; Boston's Beacon Hill-Back Bay district, and the university-student area in Harvard Square, Cambridge; Washington's Georgetown district and the university-student Dupont Circle area; the Fairfax Avenue, Sunset Strip, and UCLA campus areas of Western Los Angeles; and Toronto's Yorkville section which functions as the center of the draft resistance for expatriot United States youth. There are also several colleges and universities which function at the national level as centers of BAE culture located in the

urban core of the Northeast, as well as other radical liberal colleges which serve as local BAE centers located principally in regions peripheral to the urbanized areas of the Northeast and Pacific Coast.⁴¹

In addition to the traditional BAE districts in urban areas, there have been a significant number of BAE colonies of artist-radical-intelligentsia located in rural areas which have long been associated with particular urban BAE districts. Most of these on the East Coast are long standing summer "artist colonies" of the Greenwich Village culture.⁴² The most notable, dating from the First World War, are situated along the Long Island and New England coast at Fire Island, and East Hampton on Long Island, Provincetown, Wellfleet, Gloucester-Rockport in Massachusetts, Block Island and Newport in Rhode Island, Old Lyme and Saybrook in Connecticut, and Ogunquit, Tennants Harbor, and Monhegan Island in Maine. There are also important colonies in the Berkshire Hills-Upper Hudson Valley area, Saratoga Springs, New York (Yaddo), and Peterborough, New Hampshire (McDowell). There are few colonies in the Midwest, the only one of significance is associated with Chicago in Galena, Illinois. The Rocky Mountains have long been the focus of several important BAE centers, especially those of Aspen Colorado, and Santa Fe and Taos, New Mexico. These latter two, as well as those of the Northern California Coast cited earlier function as all year settlements, rather than as summer quarters of BAE residents as do the East Coast colonies.⁴³ The locational characteristics of these colonies seem to be based on two factors: 1) older watering places of the wealthy, such as Saratoga Springs, New York, and 2) aesthetically pleasing environments, such as the California coastal settlements. Once again, there is an obvious absence of BAE culture in the South, save perhaps in places like Key West, Florida. However, data on this matter remains scarce, and I present it only to demonstrate national patterns.

Conclusions

As I stated at the beginning of this discursive essay, it has been my purpose to assess the exact nature of BAE culture as it is manifest spatially in American cities, and to impute a rational, albeit intuitive, ordering of the pattern as it applies to the traditional models of urban structure. From the data available to me at this time, the greater portion of which was primary in nature and biased especially in regards to New York and San Francisco, I believe the urban pattern of BAE districts can be analysed utilizing the existing models or urban structure. However, the parameters of the BAE culture which affect emergence, growth, and location of the BAE districts within cities are not as yet fully understood. Quite obviously, the extreme localization of the BAE culture at the national level and the varying degrees of its impact through time, are indices of factors which have not been fully recognized. Critical thresholds appear to be related to four conditions: 1) the rate of economic growth through time, 2) a particular city's rank within the upper levels of the urban hierarchy, 3) the presence of an established intellectual community in respect to educational institutions, and 4) a certain critical tolerance for deviant behavior within the local culture region.

In terms of any predictive observations based on the findings of this essay, I would expect an increase in the growth and the importance of BAE districts in American cities assuming that the four threshold conditions outlined above remain effective. Most certainly there will be an absolute increase in the importance of the university-student BAE district at lower levels of the urban hierarchy, and perhaps the emergence of nationally significant BAE districts of the central city functional

type (artist-radical-intelligentsia) in several Southern cities, perhaps Atlanta, New Orleans, and Houston. It also appears most certain that a generational break of the type experienced during the mid-1960's will reoccur within the BAE culture during the next decade, and will be manifest in a change of BAE functions as well as through a bifurcation of the larger BAE districts.

I have consciously neglected the specifics of the intellectual, artistic, social, and political aspects of the BAE culture through time, except to give brief touchstones to the reader for identification purposes. Perhaps the most significant pattern to emerge from a study of this deviant cultural group within American society, is that the BAE culture displays extremely normal locational behavior in terms of our present geographic understanding of urban structure. This normalization at the macroscale implies relationships recognized by Schmookler and Pred regarding the amount of deviation and innovation in respect to urban size and growth rates.⁴⁴ With this implication so elegantly placed, I now conclude this essay with this, the last sentence.

Footnotes

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- 5 John K. Wright, "On Medievalism and Watersheds in the History of American Geography", in Human Nature in Geography (Cambridge: Harvard University Press, 1966), pp. 159-67.
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- 8 Ibid.
- 9 Ibid., pp. 104-06.

- 10 Caroline F. Ware, Greenwich Village: 1920-1930 (Boston: Houghton Mifflin Co., 1935), pp. 19, 31.
- 11 Delany, pp. 104-110
- 12 Harvey W. Zorbaugh, The Gold Coast and the Slum (Chicago: University of Chicago Press, 1929), p. 87.
- 13 Ibid., pp. 12, 87-101. The relationship between the BAE culture and the urban Italian communities which they affected, especially in New York, Chicago, and San Francisco, is a most interesting association. The Italians, moving into large American cities just prior to the First World War, seemed to have gravitated into the wholesale food business in large numbers. This occupational 'niche' required close spatial proximity to the central city food markets, located on the fringe of the central business district, in addition to the common immigrant tendency to combine both place of residence and work in the same district. The BAE culture was evidently attracted to these Italian districts because of the aura of the European street culture, as well as the particular attraction of fresh fruit and vegetables. It is coincidental, perhaps, that the location of the Italian district with its aesthetic appeal to the BAE culture, and the economic needs of linkage with the high income district, provided an optimal spatial location on the edge of the central business district for the BAE culture. During the late 1950's and early 1960's the admiration of Italian street life by the BAE culture, was replaced by an equal admiration of Black ghetto life. This shift in BAE perception might well explain more fully the location of BAE districts in Boston's Fort Hill, Roxbury ghetto, and in San Francisco's Haight-Ashbury district. I wish to thank Martyn J. Bowden for elaboration of this relationship.
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- 17 Harrison Smith, "The New Coast of Bohemia", Saturday Review of Literature, August 16, 1947, p. 18. Rexroth, p. 159.
- 18 George Baker, "Avant Garde at the Golden Gate", Saturday Review, August 3, 1957, p. 10. Delany, pp. 119-27. Seymour Krim, "What's This Cat's Story?", in Views of a Nearsighted Cannoneer, Dutton Paperback (New York: E. P. Dutton and Co., 1968), pp. 13-37. Rexroth, pp. 159-62.
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- 27 Jencks and Riesman, pp. 61-154.
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- 34 "The Hippies are Coming", Newsweek, June 12, 1967, pp. 28-29. "Hippies - A Passing Fad?", U.S. News & World Report, October 23, 1967, pp. 42-44. Polsky, pp. 148-49.
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- 36 "Is Nothing Sacred?", Newsweek, August 5, 1968, p. 26. "Spotlight on 'Hippies'", U.S. News & World Report, May 8, 1967, pp. 61-63.
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- 39 Comments by R. E. Marks, winter 1966-67, and M. Soergel, winter, 1968-69.

- 40 Comments by G. Hinzmann, winter 1968-69. All other data can be attributed to conversations with a brother who gets around (reporter, Washington Post - R.M. Krim), as well as my own observations which I regard as valid.
- 41 The following are radical-liberal colleges and universities which function as national centers of BAE culture: University of Wisconsin at Madison, University of Michigan at Ann Arbor, Antioch College at Yellow Springs, Ohio, Reed College in Portland, Oregon, and Swarthmore-Haverford - Bryn Mawr colleges in the western suburbs of Philadelphia. The following radical-liberal colleges and universities function as local or regional BAE culture centers: Tulane University in New Orleans, Rice University in Houston, University of Colorado at Boulder, University of New Mexico at Albuquerque, State University of Iowa at Iowa City, University of Indiana at Bloomington, Oberlin College in Oberlin, Ohio, St. John's College in Annapolis, Maryland, and Clark University in Worcester, Massachusetts.
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AFRICAN VIGNETTES

reed stewart

An Ancient Industry: Around the bend in the beach, behind the low cliff of upraised fossil coral and sheltered from the easy curiosity of the tourists on the Mombasa area of the Kenya coast, I literally stumbled into a millstone quarry. The limestone just under the water level at mid-tide had been cut into, and two-foot square chunks, about one foot deep, had been prized out and taken to a rough lean-to, roofed with coconut fronds, at the edge of the beach ridge. There, several Kenyans carved out disks about fifteen inches in diameter and six inches thick, with a three inch hole centrally pierced from top to bottom. Those blanks that survived without cracking were smoothed with delicate chisel-work until a near perfect circle was achieved on both faces and through the center. The faces were left with as great a degree of smoothness as could be obtained without polishing. When completed, the new millstones were carried by head portage to the nearest bus route and then to market at interior villages for sale as maize grindstones. It may be that the coral stones form the upper of two millstones, with a piece of schist or other smooth and hard rock as the nether.

I don't know the prices of the finished product, nor the distances inland they were carried before sale, or resale. I do know that the coral does not stand up to grinding too well and that replacements, both of stones and of teeth of the maize consumers, are a problem. More information may be obtained from Mr. D. G. Lewis, Shimolalewa Secondary School, Mombasa, Kenya.

Two Women: Samuel Kimani's mother, Njeri, lives on a quarter acre farm in the Kikuyu highlands near Nairobi, Kenya. Her house has three tiny rooms under the roof made of flattened kerosene cans. She has several goats which

are herded in the neighborhood by youngsters of her extended family, many of whom live within a stones throw in similar homes on similar sized plots of land. Njeri's own children all live away from home and she must do most of the gardening herself, though she receives some help from her sons' wives as they have time, if they live near enough. She is getting on in years and counts it as a great blessing that Samuel has recently married and built a house for himself and his wife right next to that of his mother, especially since Njeri's youngest daughter, still in her teens, is blind and attending a school for the blind about twenty-five miles away. Njeri is illiterate and does not speak English or Swahili, the lingua franca of Kenya, though Kikuyu is more than adequate for a tribeswoman of the president of the country, particularly one who hardly ever travels.

Leah, Samuel Kimani's wife of a year and a half, comes from a cluster of farmsteads similar to that of Njeri's, about six miles away. She represents the generation one step more modern than Njeri, since she has been through three or four years of school and has learned a little English (most of the teaching was done in Kikuyu) and more Swahili. For lack of practice she may well grow rusty in her literacy, since at present there is not much in print to interest her. Leah frequently spends the weekdays helping her husband in the store where he works, ten miles away, returning home with him only on Saturdays and Sundays. Even this travel sets her apart from her mother-in-law. Her house, also, is different. Though built on the same plan, it has wooden walls, rather than mud, a roof of corrugated sheet metal, and a cooking bench built of bricks, rather than the floor-level stone-rimmed hearth that Njeri uses. Her house is also about twice the size of Njeri's.

In spite of the differences in age, education, travel, and material possessions, both Njeri and Leah are very close in their culture and make a strong unit. The blind daughter, by contrast is another whole step further into the "western" world, since she speaks English fluently, has a substantial literature available to her in Braille, and is now in secondary school, with the attendant sophistication which that can sometimes bring. Still further along the path away from the tribal culture are the young women who leave the settlement near Njeri's and Leah's homes and take the bus into Nairobi to work in the small shops that are responding to government pressure to hire Africans.

Agricultural Innovation: On some seven acres of ridge and creekbottom land near one of East Africa's major cities, a large family has taken a quantum jump from subsistence farming into the cash growing of mushrooms for the expatriate, tourist, and canning company market. The thatch-roofed sheds, each with several hundred bushel boxes of mushroom-sprouting loam, are built in a healthy stand of maize, up the slope from the kitchen garden, which is in turn above the cow pasture which runs down to the swampy valley in which root crops are grown, as well as additional drought-free maize. The mushroom-growing operation is at the break-even point, yielding twenty pounds a day to be marketed by the farmer in the municipal grocery stalls a half-hour bus ride away. The high quality fungae are sold in half pound lots, wrapped in attractive plastic bags, but with no identifying labels, lest taxes be increased upon the tax bureau's identification of the grower. All that the farm produces can be sold, but the single mushroom expert has not time enough to grow more, since the several sheds full must be watered by bucket from the nearby well, and since he must do all the other maintenance tasks and the selling.

The patriarch of the family has put his sons through school and has now retired, and the sons who are not active on the farm support it and him with their extra earnings at skilled crafts in the city or in government offices. The farming son learned his mushroom growing while working for an expatriate farmer in the area. All have thus contributed to the success of the venture and all face the question of how to get past the break-even point. Shall they hire extra labor, which brings in government regulation as well as reducing the family's proportion of the income, or install some type of pump, which will probably mean borrowing from a bank, a course they are reluctant to take? Shall they advertise, or sell through a broker, losing some of the income? The traditional culture provides little help in answering questions like these.

A House-daubing Bee: Kali had done most of the framing of his new house himself, with the help of his new wife, Ynosia. It was a three room affair, with a hallway that ran from the front porch through to the back yard, between the two smaller rooms and the single, master bedroom. For the thatching of the fifteen by thirty foot roof, covering the porch, the rooms, hallway, and the cooking stoop out back, with a generous overhang against the rains, Kali hired a specialist. He, himself, had cut the oil palm frond, but the roofer folded them in half and cut and sewed them into what looked like large shingles before he did the thatching.

Next, Kali and George, the mission headman, asked that the workers be given a day off, to pack the walls with mud. Kali furnished the food and music, Ynosia supervised the cooking and serving, and the work was completed by early afternoon. About twenty men joined in. Dirt from nearby termite hills was mixed with creek water to a thick mud, thick enough to make a head-sized ball that would not collapse under its own weight. That was jammed into the space between the rattans which were woven horizontally on either side of the vertical poles that supported the roof and which were spaced about eighteen inches apart. The rattans enclosed a space between each pole from the ground to the top of the wall and that space was filled with the stiff mud. The windows and doors, by the way, had all been fitted into the framework of rattan and poles.

I wish that I had had a tape recorder as well as a camera, for the scene was like light opera. There was an assembly line from termite hill to mixing trough to house, with movements almost choreographed, certainly in time to the singing. Perhaps it was as well that I didn't understand Sapo, for some of the verses seemed to apply to me, at least judging by the glances and the laughter accompanying the glances. The mud was packed in solidly, building up rapidly, at a given section of wall, to waist, then to shoulder, and finally extended arm height. Behind the rough cast masons came a pair of men, one inside and one outside, smoothing the mud over the rattans and leaving a surface only slightly rough onto which a final layer of fine clay would be plastered after the house walls had just about dried out.

The interior walls of the house were done first, of course, while there was light to see by, and then the outside was plastered in, bringing a gloom to the rooms that even the windows didn't wholly relieve. When the final smoothing had been done on the walls, a fire was lit in each room to speed the drying. On later days, Kali and Ynosia gave extra care to the packing of clay walls with a variety of designs. Altogether, for a cost of forty dollars, they had a house that was cool, dry, and durable. After the crew had finished their house-daubing, there was a general wash-up and Ynosia served a meal to the workers. There was dancing in the camp still later that night.

Diamond Digging: After walking through some fifteen acres of upland rice, about ready for harvest, we came to the bank of the Lofa River, in north-western Liberia. About ten minutes walk upstream brought us to a swampy clearing in the scrub forest, the site of David Kiahon's diamond workings. Some dozen men were digging, screening, and sorting in the white gravel that had been exposed by the trenches dug into the swamp floor. I don't know who, or how, it was that first discovered the diamonds in the area, but this operation was only one of several in the flood plain of the Lofa. Ditches had been dug to at least partly drain the swamp and several feet of muck and heavy soil had been stripped off. The trenches were water filled and about waist deep, well down into the diamond bearing sands.

Each worker, in his own section of a trench, filled a foot-square sieve with the coarse sand and sloshed the heap in the water in which he stood until the fine sediment had been flushed away. That action also tended to jiggle the denser bits of gravel to the bottom of the sieve, which had a screen-width of about an eighth of an inch.

When the washing process seemed to be complete the man stepped to the bank where the foreman waited and quickly overturned the sieve, depositing the "cake" of coarse sand bottom-side up on the ground. Then the worker and the foreman began to sort through the top several layers of sand in search of diamonds. There were a lot of brown and dark-blue bits which the men called corundum. They had been told by the Lebanese diamond buyers that these were worth some money, but apparently didn't think them worth bothering with. As I watched one pair of searchers, several alleged diamonds were found: dull bits of milky quartz, to my eye, not much different from other stones which were not picked up, about the size of an immature pea, just big enough not to pass through the mesh of the sieve.

It seemed to me that the search procedure would find only a fraction of the diamonds in a particular sievefull of gravel, perhaps a quarter, and that the digging in the trenches would pass by at least three-quarters of the gravel in a given trench, while the trenching itself was not at all systematic. Nevertheless, enough money was being made by the property owners, the foremen, and the workers to attract numerous small villages of men from some distance around, and to give rise to a substantial smuggling activity across the border with Sierra Leone: diamonds going into Sierra Leone as the possessor hoped for a more honest purchase offer if he could pass the diamond off as from Sierra Leone and gain the benefit of government regulated buying; and diamonds coming into Liberia where control was looser and sales could be made with fewer questions as to the origin of the stones, and without taxes, even if the prices were much lower.

Later, as controls on both sides were increased, and as commercial licenses were issued by Liberia, the fever died down, and it turned out that economy of scale just didn't come into play, so that commercial mining, with larger overhead, just about stopped trying to work the diamondiferous sands.

THE IMAGE OF SAN CRISTOBAL

denis wood

In this short paper I comment on three different, yet related, things. First, this paper is a study of the image of San Cristobal Las Casas held by a portion of its inhabitants; another case study, as it were, to add to the growing number of urban image studies. Then I explore some of the implications of the larger "context" into which the heretofore examined urban images must be placed; that is, the rest of the image. Finally, I look at the idea of "replication" as it is exemplified in the town of Las Casas and point out the value of this concept for the creation of new urban images elsewhere.

This study was carried out in early April, 1968, in the town of San Cristobal Las Casas, in the state of Chiapas, Mexico. One hundred and seventy-six students in the Escuela Tecnica Industrial y Comercial Vocacional #28 (hereinafter referred to as ETIC) answered a six-page questionnaire that inquired into their view of, and relationship with, the town they lived in. The sample was intentionally non-representative of the town's population as a whole. This teenage bias modifies the image, which is not, it is hypothesized, typical of the adult's image of Las Casas. The fact that the image here derived is not typical of the adult image is of the utmost importance in that it points up the need for age-stratified samples. Indeed, if and when image-analysis becomes a planning tool samples will have to be age and class-stratified to take into account the varying demands of varying ages, incomes, backgrounds, and so forth. The students in this sample range in age from 12 to 18 years, having equal mean and median ages of 14 years. The division as to sex was more or less equal, the girls constituting approximately 53% of the sample. Within each sex, the average and median age

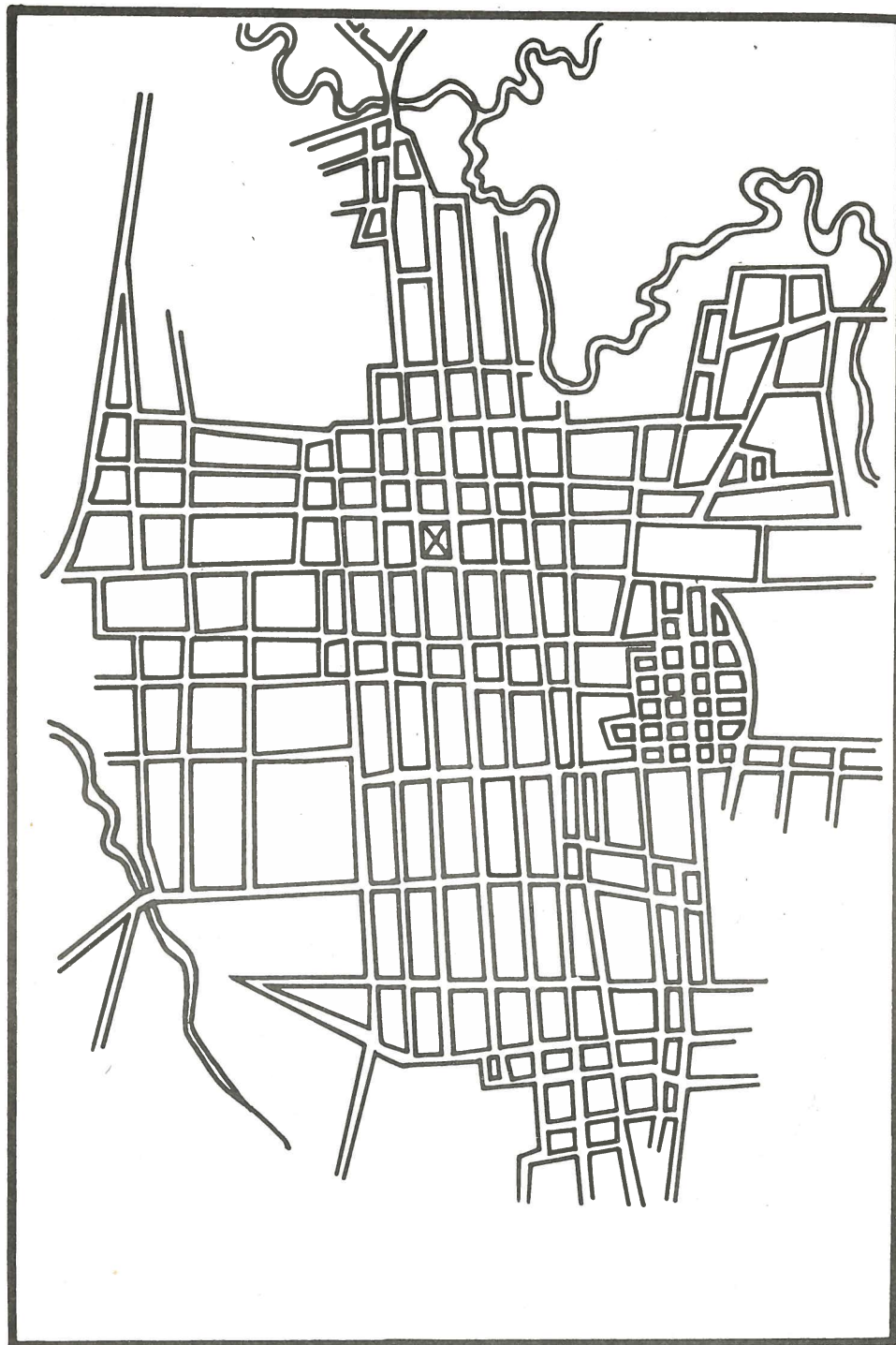


Fig. 1

remained 14 years. Nearly 59% of the students were born in Las Casas. Only 3% of them were born outside of the state of Chiapas. The average length of residence is 8.9 years. That the median length of residence is 12.4 years, however, reflects the fact that 26.7% of the students have lived in Las Casas only two years or less. These generally turn out to be students that are living in Las Casas only to attend school. A large number of this group was born in the Tzotzil and Tzeltal-speaking Indian communities that surround Las Casas. Their presence is clearly visible in a number of the facets of the images that were examined. The students' degree of travel is not exceptional. Forty-nine per cent of them have visited Mexico City, 8% have visited the United States, and 14% of them have visited Guatemala. This last figure is probably high only due to the ease with which Guatemala can be visited from Las Casas--it is no more than five or six hours by bus from Las Casas to Guatemala. If these students are not representative of the Las Casas population as a whole, they certainly are representative of the student population of Las Casas, as well as urban southern Mexico in general.

The town of San Cristobal Las Casas, in which the students live, has around 22,000 inhabitants. San Cristobal lies along the Pan American Highway at an altitude of 7,400 feet in a large green bowl in the mountains of the Chiapas Highlands. No matter from which direction the town is approached, two hills, Cerro San Cristobal and Cerro Guadalupe stand out. On each stands a white church reached by long flights of stairs. These hills mark the east and west ends of the old colonial town. Within the town the hills are connected by two streets, Calle Diego de Mazariegos and Calle Guadalupe Victoria, which meet at the Zocalo or central square. From the Zocalo, which is essentially in the center of the town, one can look down any street and see, in every case, looming hills or mountains of green. All vistas of, or from the town, are dominated by the two hills with their churches and the surrounding mountains of green. The town is well known in the guidebooks for a number of things besides the attractiveness of its situation. Founded in 1528 by Diego de Mazariegos, and later laid out in the well-known grid pattern established by Philip II's Laws of the Indies, Las Casas generally is one of the best preserved colonial towns in all of Mexico. Iglesia Santo Domingo was completed in 1560 and is one of the finest examples in southern Mexico of early colonial architecture. A number of other churches among the seventeen in San Cristobal were constructed in the 16th century, as well as a number of the homes belonging to the original conquerors of the area. The town is the market center for some 180,000 Tzotzil and Tzeltal-speaking, Maya-descended, corn-farming Indians. During the day they flood into town to buy, sell and visit and at night they stream out again. These Indians are the life-blood of Las Casas. The town's first factory was completed in 1967. Prior to this, there were no factories.

To determine the students' image of Las Casas, a variety of questions were asked. Three of these questions were particularly significant and these I examine in some detail. The students were first asked to list those places in Las Casas that they felt to be important or that they remembered best. Secondly, they were asked to draw a map incorporating the elements listed in the first question, as well as any other elements that might come to mind. Later on in the questionnaire they were asked to list those places that they visited most frequently. The answers to these three questions were tabulated and then mapped.

Of the 176 students answering the questionnaire, only 162 responded to the first of the above questions. These students mentioned a total of 100 things or places in Las Casas that they felt were important or that they remembered clearly. Sixty-five per cent of these items were mentioned by no more than three persons, and 80% were mentioned by no more than eight persons. Since eight persons do not constitute even 5% of the sample, none

of these items was mapped. Thus there were only twenty items, mentioned by at least 5% of the sample, that were considered mappable. Of these twenty items, five were generic in character and it was felt that these could not be justifiably placed on the map.

They are as follows:

Item	Mentions	%	Type
Iglesias	36	20.3	Landmark
Museos de los profesores	22	13.4	Landmark
Escuelas	17	9.6	Landmark
Museos	15	8.4	Landmark
Campos	11	6.2	Landmark-Node

It was not felt reasonable, for example, to locate all seventeen churches in Las Casas on the map when only 20.3% of the sample mentioned them. Nevertheless, three churches do appear on the map (Fig. 2), those being the Santo Domingo, the Cathedral and Del Carmen, since these were mentioned by name.

The image that Fig. 2 presents us with is, what might, with certain reservations, be called the "tourist" image. That is to say, that with the exception of the swimming hole (el Cubito), all fifteen mapped items are things about which these students feel pride and which they would recommend that a tourist see. Thus Santo Domingo is not only at the top of every guide book's list, it also ranks high in the student's mind. Other items about which the guidebooks and the students agree include: the Cathedral, the Zocalo, the colonial Arch of del Carmen, the Indian Institute (INI), the home and museum of the late Franz Blom, and, "for a magnificent view," the hill of San Cristobal. The ETIC, auditorium, theater, Presidencia and library, while not of interest to the sophisticated guidebooks, are definitely items that the typical Las Casas inhabitant wants you to see. All are cultural, new, or both. The market, which is unique in all the world and which is mentioned as being of great interest by every guidebook, is conspicuously absent. It is here hypothesized that the market does not appear for the following reasons: 1) because, given the age and occupation of the sample, the market does not loom large in their minds; 2) because the market, for the majority of Las Casas inhabitants, is not a source of pride. This may be because it is first of all less clean and more smelly than they think it should be (some of this sentiment came out in later questions); and, because it is Indian-dominated and the average Las Casas inhabitant looks down on the Indian. With the exception of the market, however, the image derived from this question could be described as the tourist oriented image--an image, that is, not of or from the tourist, but one that could be oriented in his direction; what the Las Casas student would like the tourist to see; an index, as it were, of pride.

Immediately following the above question, the students were asked to draw a map incorporating those elements listed on the first question and any other elements that they felt should be included on this map. This question was one of the questionnaire's weakest in terms of response. Only 58 students responded to this question by drawing something on their blank sheets of paper and of these only 42 responded by drawing maps. The other 16 drew pictures--of churches, mountains and so forth--or merely repeated the items listed in the preceding question. The males dominated the responses here, 66% of the respondents being male. More indicative of the male dominated response is the fact that of the total sample (176), 46% of the males answered this question while only 22% of the females did so. This likely only reflects education differentials and hopefully does not bias the

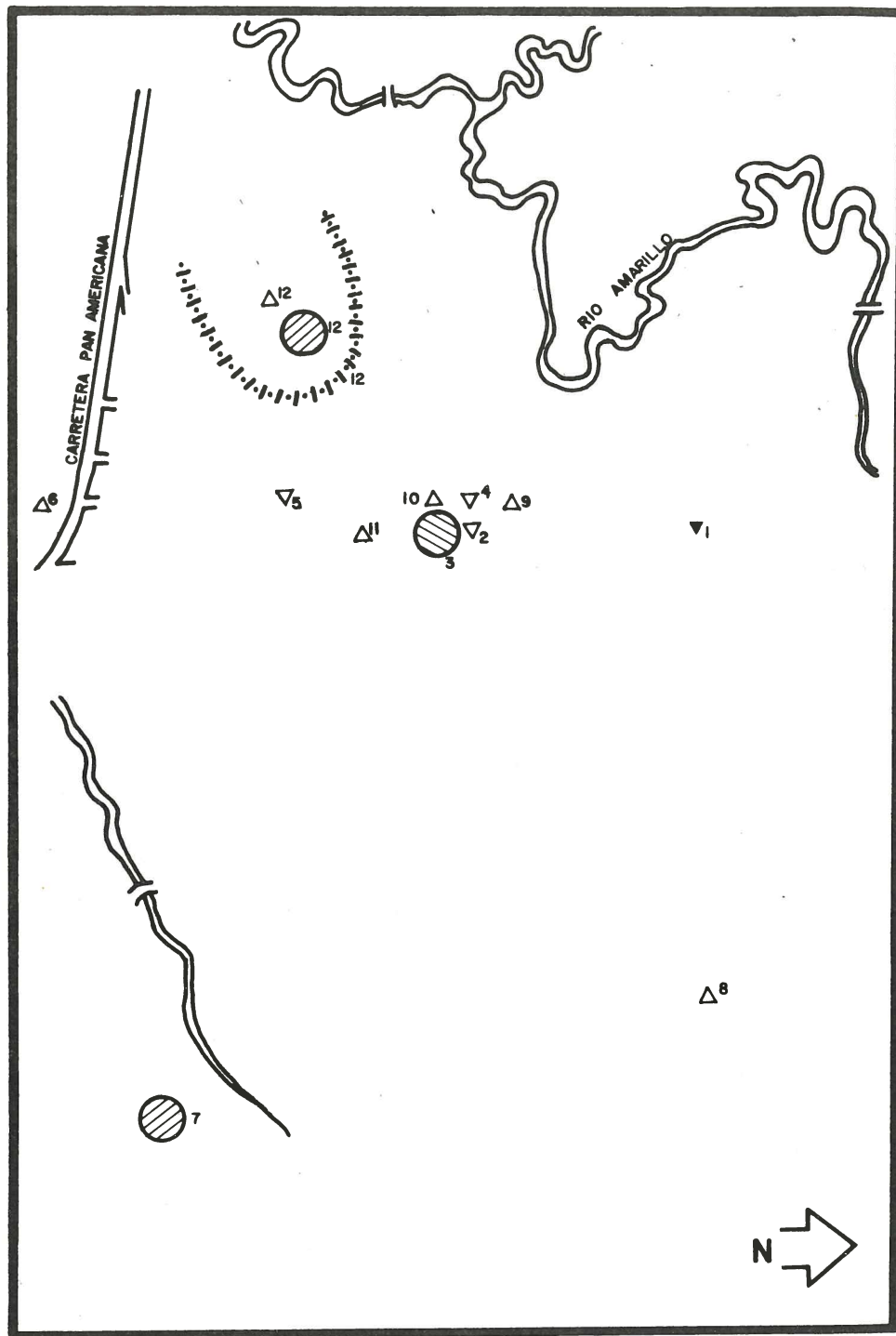


Fig. 2

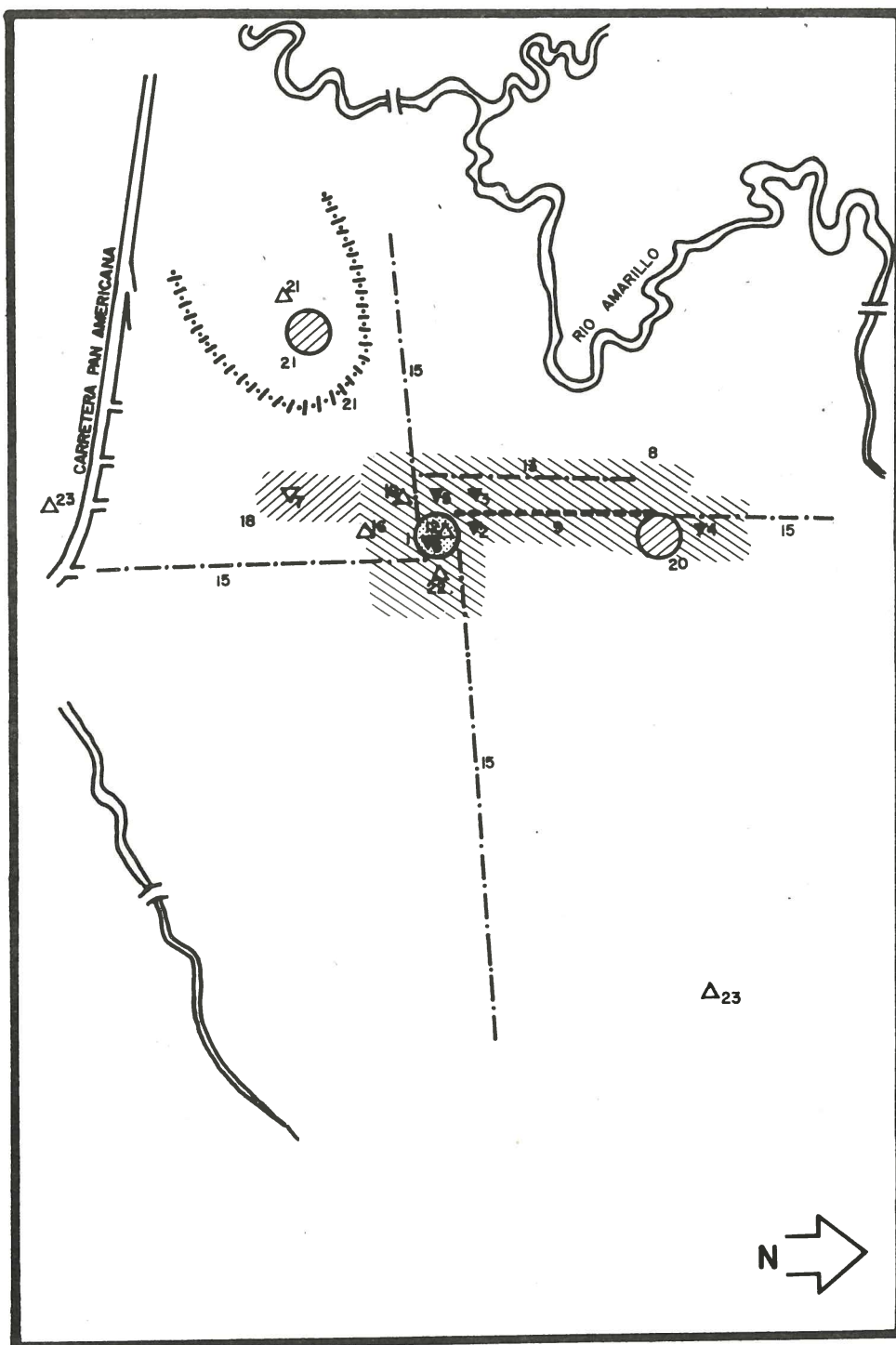


Fig. 3

results. While they were asked to place a north arrow on the maps that they drew, only five students did so (all male) and of these, four were correctly oriented. (On a later question, in which the students were asked to orient an arrow on a prepared map of Las Casas, 60% of the 96 students responding correctly oriented their arrows). The students drew 51 different things on their maps (landmarks, nodes, paths and so forth) and 15 distinctive relationships of these elements were isolated. Of these elements and relationships 31 were drawn or exhibited by at least 5% of the sample. Again, there were generic items. In this case there were only three of them that could not be mapped: 1) trees, 2) shops, and 3) mountains.

If the first map showed us the "for the tourist" image, this map (Fig. 3) shows us a more or less routine, run-of-the-mill-day, functional image. Here we see the image of Las Casas as the students are involved in their everyday occupation of going to school. The Zocalo was mapped by a majority of the students and was drawn first by those students that I watched. Things immediately adjacent to the Zocalo show up in great number. Thus one finds the Cathedral, ETIC, the Presidencia, things on the Zocalo (benches, gardens and the like), the Kiosco in the center of the Zocalo, the Supermarket, and Portales (a coffee-house) as well as the blocks immediately surrounding the Zocalo. The only elements truly disjunct from the Zocalo are the Santo Domingo complex (consisting of Santo Domingo, an additional church, and the Alameda Utrillo), the del Carmen complex (consisting of the colonial arch, the church and the small plaza), the home and museum of the late Franz Blom and the hill of San Cristobal. And yet all these have a clear relationship with the Zocalo, particularly the Iglesia de Santo Domingo and the Iglesia Del Carmen, which define the ends of the street running along the west side of the Zocalo. Once again the market is absent, as one would expect from a group of students that do not ordinarily or routinely use it.

Finally the students were asked to list those places most frequently visited, as well as the reasons that they did so. One hundred twenty-seven students answered this question, coming up with a total of 45 different reasons. Of these only 11 were mentioned by more than 5% of the sample, and of these two were generic and thus unmappable, these being the churches and the playing fields. A glance at the items mentioned and reasons given is enough to convince one that we are in the presence of yet another sort of image. This is clearly the recreational image. Thirty-three per cent of the reasons given involved sports such as swimming and walking. Another 12% of the reasons involved going to the movies or listening to the marimba bands. Still another 22% of the reasons involved getting out of town, finding fresh air, shade or picnicking. A full 76% of the reasons given, then, involved time off - from church, school or work. Only 17% have as reasons for visiting a place frequently its proximity to someplace else. Thus a number of students spoke of visiting the Zocalo only because it was close to school. And a mere 10% said that they visited such and such a place because they had to. Thus a few students mentioned the school "because they had to go", or the cathedral "because of Mass".

This is clearly reflected in the map (Fig. 4). Here the Cine las Casas stands out as an important item, as does the swimming hole. INI was mentioned only in its capacity as a playing field in response to this question. The Zocalo is once again clearly in the center of things. This is daily the center of activity, certainly the tourist focus. The Zocalo is also the center of recreative living in Las Casas. In the afternoons the Zocalo is thronged with people; marimbas play there on Sundays when the entire town turns out to walk at least once around the square. The Cathedral is here and the theater is only one block away. Unfortunately, however, the recreational image of Las Casas is rather sparse. As a matter of simple fact, there is not a lot to do in Las Casas along recreational lines for the majority of the populace. No less than 9% of this sample indicated that

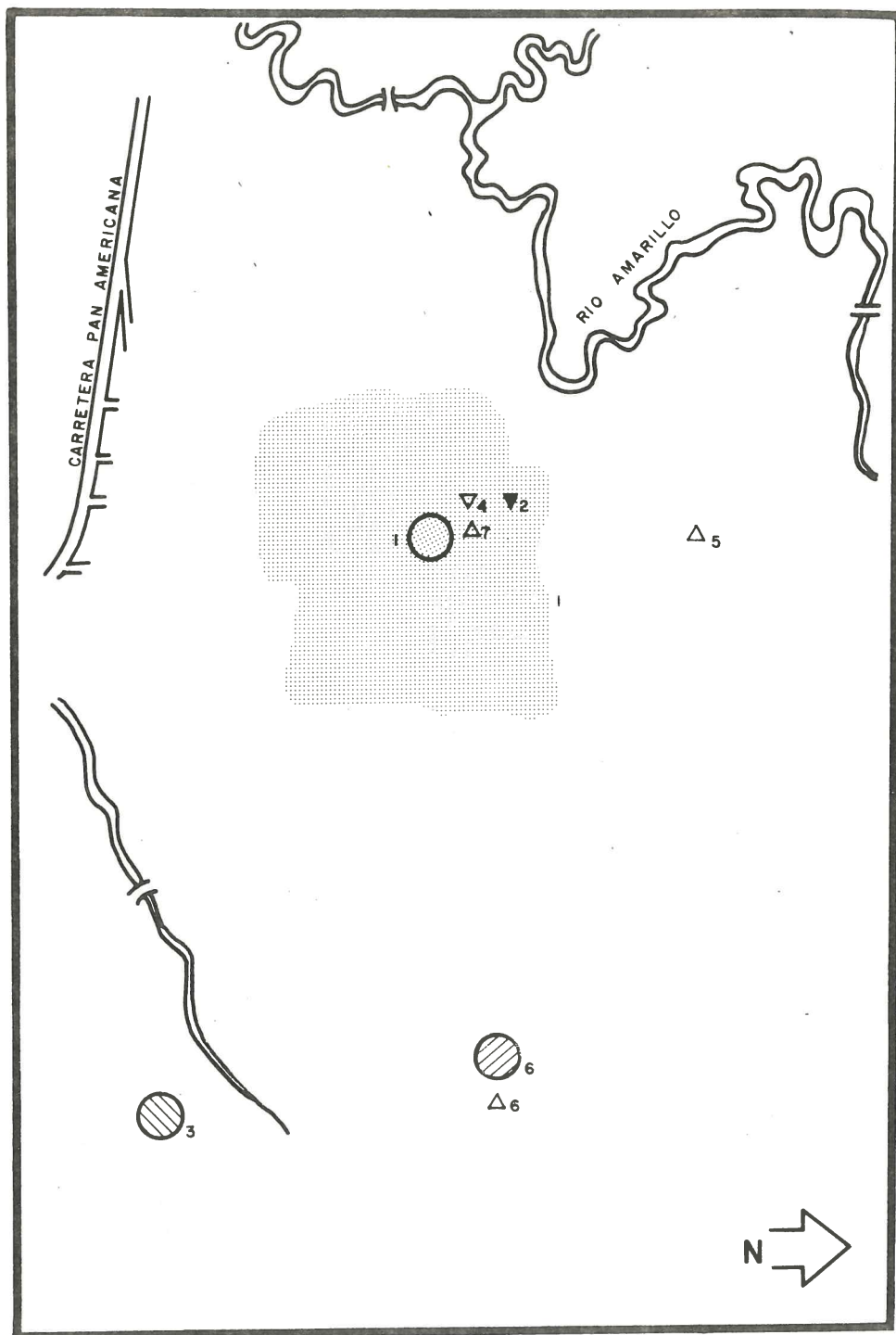


Fig. 4

the theater was the only diversion that Las Casas had to offer. While by their own admission this is not the case, it is nearly the truth. If Las Casas is interested in holding onto its youth, something will have to be done to rectify this aspect of the image.

Inasmuch as it has been maintained above that each of the three questions elicited a different aspect of the image of Las Casas, it can be easily seen that none of the maps thus generated reflect the total image of the town. To more closely approximate the real image of Las Casas, it was felt justifiable to form a composite map containing all of the elements found on the first three maps. This has been done and the map appears as Figure 5. That this was justifiable can be readily argued. Just as the life of a student can be seen as consisting of a variety of activity areas--educational, recreational and so forth--so the various image maps can be seen as reflecting these activity interests. Yet just as it is ultimately impossible to consider a real life as being anything but whole, so it is impossible to fragment an image. Thus the various images have been combined to reflect the totality of the students' experience. Interestingly, this line of reasoning leads to some intriguing speculations about the true nature of the image. This composite image is, in point of fact, really a confusion of two utterly different things, as is any composite of the images of a given place that a person carries around in his head. The image functions, in one hand, as Kevin Lynch has suggested, as a mental map, an orientation, way-finding mechanism guiding movement through the space covered by a city such as Las Casas. On the other hand, it also functions as a composite of what I refer to as opportunity surfaces, which are guides for movement of a non-spatial and often temporal character. Both of these functions of the image are examined below.

As an organizer of spatial activity the map (Fig. 5) makes a great deal of sense, particularly so since the symbols used are spatially meaningful. The paths are things along which one moves, the edges define barriers to one's movement, the districts are large areas into which one enters and which are somehow distinguishable from the surroundings, the nodes are points, district-like, only small, and the landmarks are essentially points of reference into which one cannot enter in the same sense that one enters into a node or district. As such, all the items mapped make sense. With the exception of Portales (#24) or the library (#18) all of the landmarks as mapped can, and actually do, function as points of reference for moving about in the town. In particular, the Presidencia, the ETIC, the Cathedral, the theater and Santo Domingo are important points of reference. All stand out clearly by virtue of height or their color or their associated clumps of trees. In addition, the home and museum of the late Franz Blom and the del Carmen complex dominate certain views and unquestionably aid in the organization of Las Casas space. Strangely, the two most significant landmarks in Las Casas make a poor showing. These are the Guadalupe complex (consisting of a plaza at the foot of a high hill surmounted by a church) and the San Cristobal hill with its church. These two churches, standing upon their hills like Mayan temples upon their pyramids, definitively delimit the east and west extent of the city. They are, one or the other and often both, visible from most points in town. They are unhesitatingly the dominant landmarks of Las Casas. Why these two landmarks made the poor showing that they did is not difficult to explain in terms of the questions asked. No question asked the student to list the landmarks by which he navigates. The questions asked for significant and memorable places and places often visited. In the drawing of the maps, which tended to be Zocalo centered, the hills were either marginal, or regarded as unnecessary. Thus the hills show up less than they ought to, not because of their actual insignificance, but because of the formulation of the questionnaire.

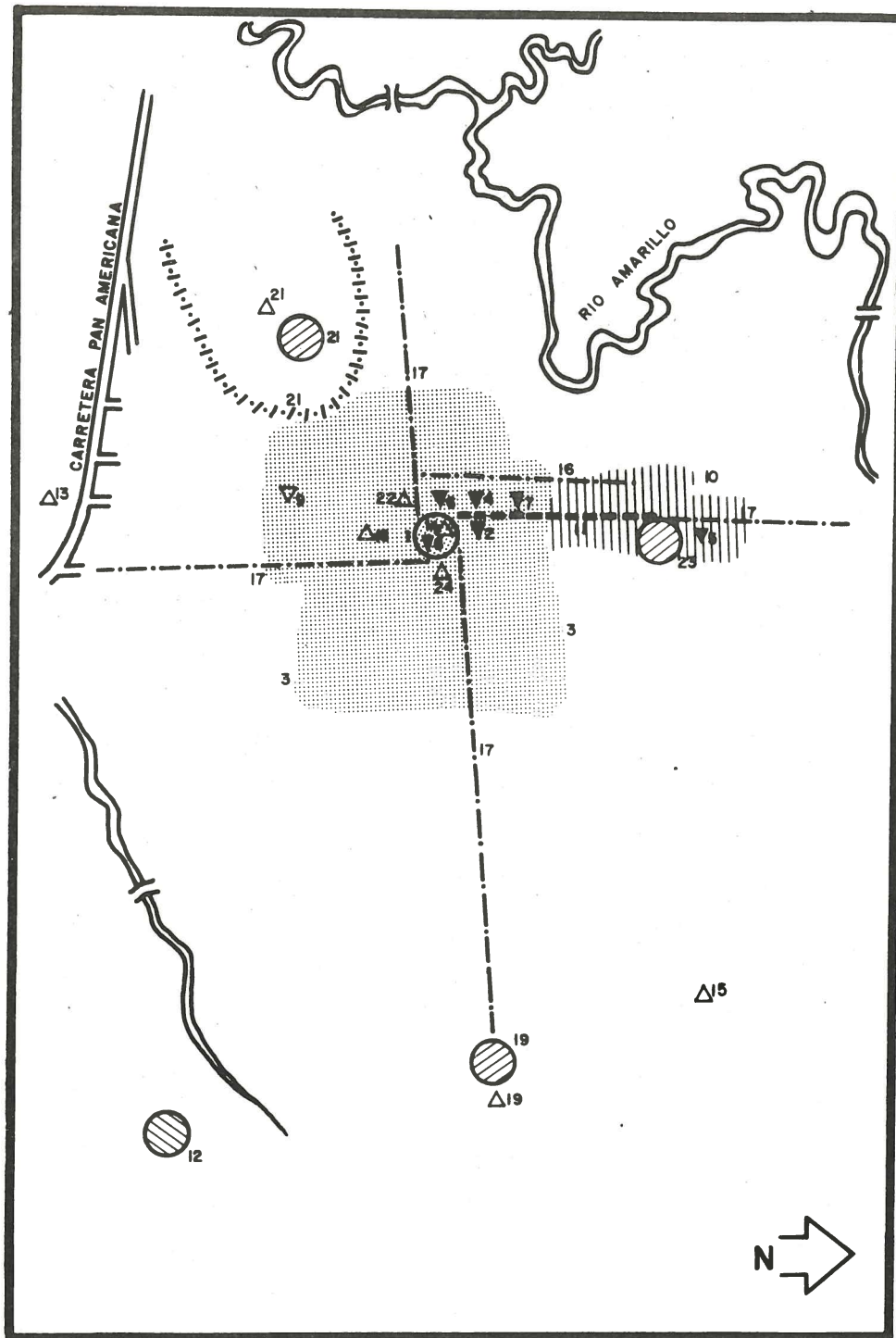


Fig. 5

The major modes are likewise, for the most part, found on the map. The principle node is the Zocalo. From the Zocalo radiate all the routes that can carry traffic out of the town. The Zocalo is the place chosen by the local police for the sorting of traffic within the city, in which instance the Zocalo functions much as a traffic circle does. In addition, the four principle commercial paths empty into the Zocalo. A glance at Fig. 1 in conjunction with Fig. 5 will show that none of the main commercial paths continues through the Zocalo in a straight line. This necessitates a diagonal crossing and entering into, of the Zocalo. Its node-like functions are enhanced by the cultural milieu. The townspeople exploit the Zocalo for social purposes. When one has time on his hands, the place to go is the Zocalo. No other node in the town compares with the Zocalo in any way. Of the others shown, only the Guadalupe plaza begins to approach it, as an important road out of town is routed around it as well as a significant foot-path to a number of Indian villages. Alameda Utrillo, the San Cristobal hill, and the swimming hole also function as nodes. In fact, only two significant nodes that have been discriminated against by the age bias. (Both of these nodes could be perhaps as easily understood as small districts). The major paths and districts show up in the image, as does the only viable barrier within the town, the San Cristobal hill. The town is actually hemmed in by barriers, but all but one of them are effectively outside the town itself. Thus the Pan American Highway, the Rio Amarillo and the mountains, of which Guadalupe hill is but a spur, are the barriers within which the town exists, even though sustained growth has caused new barrios of the town to be created beyond them. Only San Cristobal hill acts as a barrier within the town, and so it is the only barrier to show up in the image.

The pattern that emerges for the organization of spatial activity is clear and strong. It consists of a cross-shaped quartet of roads, the east-west pair of which bisects the town and connects two dominating landmarks (the two hills), and the north-south pair of which bisects the town as well as connecting the two barriers of the Pan American Highway and the Rio Amarillo. The intersection of these two axes constitutes the principle node of the town (the Zocalo) and the center of the best defined district. This same intersection contains seven of the fifteen landmarks mapped, landmarks which define the center functionally and spatially. When it is also noted that the street pattern consists of a right angle grid it becomes apparent that Las Casas is indeed a legible city, that is, one in which it is difficult to be anything but securely oriented all the time.

Yet this image is also a composite of what have already been referred to as opportunity surfaces. By this is meant a surface on which, for a given goal or activity, certain opportunities manifest themselves. Thus, when a Las Casas student wishes to spend a given portion of his time in a given activity, an image of Las Casas manifests itself containing basically those elements likely to satisfy the desired goal. So, for a recreational goal the image will have only those elements likely to be recreational--in this case only five or six items, namely the swimming hole, the theater, the auditorium, the INI fields and the Zocalo. This would be the recreational opportunity surface. An opportunity surface could be constructed for each student along any number of goal dimensions; recreational, work, church, school and so forth. As a matter of fact, it can be claimed that each of the first three maps is an opportunity surface. On these surfaces landmarks, nodes, paths and the like are not orienting devices, but rather goal points within which a given desire is satisfied. Thus on the church opportunity surface, the cathedral is not a landmark useful in orienting movement from

one point to another but rather a goal point within which the desire to attend Mass will be satisfied. That the cathedral may function at the same time as a landmark is irrelevant at this point.

Once this distinction is made, the total lucidity of Las Casas becomes more than apparent, for to a great extent, these two image constituents--the orientation surface and the opportunity surface--are congruent. That is, to a great degree, all goals are landmarks, nodes and so forth. Thus you can generally see where you are going and can effortlessly imagine the route necessary to get there. Goal points are simultaneously orientation points. Even in relatively homogeneous goals areas, i.e., residential, Las Casas is legible. Here the opportunity surface presents, in the case of one's home, only one goal point. The orientation map will help, but in these goal areas the orientation image is relatively weak. It is at this point that the "replication" process swings into action. Replication in this sense is simply the recreation of similar forms on varying scales. Thus if the town as a whole has a principle node consisting of a square, a neighborhood will also have a principle node consisting of a square. If the city as a whole has a particular character that sets it apart from other cities, a barrio will also have such a character. If a city as a whole satisfies a variety of functions, a neighborhood will do so as well. What is critical from an orientation, or wayfinding point of view, is that the forms of organization be similar.

Actually, this is approaching the entire question backwards. The concept of replication makes most sense working from the micro-to the macro-level. In Las Casas the typical house has the rooms of the home ranged around a rectangular court-yard or patio. The rooms themselves are divided along two lines, a functional and a personal line. Functionally, certain rooms are for certain tasks: the kitchen for cooking, the sala for formal entertaining, the bedrooms for sleeping and the patio for non-articulated functions like, "Oh, go out and play in the patio", or for washing clothes, or for informal entertaining, or for talking to salesmen and so forth. The rooms are also divided personally: this is the parents' bedroom, and that is Jose's room and the kitchen is Maria's territory. Optimally each room will have its own character, a character that will reflect both its functional and its personal aspects. The kitchen is clearly demarcated as a kitchen, but it will hopefully reflect Maria's character as well since Maria very likely has her own preferences for organization of the work space. Jose's bedroom will be as clearly demarcated as a bedroom as will his parents' room. When one leaves his room, he does not step into a hostile world, nor into someone else's room, but rather into a neutral patio, that at the same time that it belongs to Jose, belongs to all the inhabitants of the home as well. And from the court-yard leads the door to the outside world.

If replication is indeed in operation, all the characteristics of the home will be in operation in the next level. Thus all that is necessary is to learn the rules operational on one level to be perfectly familiar with the rules operational on all levels. In fact the barrio, or neighborhood, does replicate the home. It consists of a number of homes clustered around, or at least focused on, a rectangular square. The homes throughout the barrio are divided along two lines: functional and personal. Thus some of the buildings function as shops, others as workshops and still others purely as residences. At the same time the homes are distinguished by the character of the families inhabiting them. If both Rosa and America operate tiendas, the tiendas will not only be distinguished from Felipe's shoe shop functionally, but from each other personally. Thus Rosas will have her hours and her range of goods and her ways and America will have hers. Once again formal entertainment will take place within the homes but Rosita and Joselito will flirt in the plaza. Their younger sibling will have been told numerous times, "if you want to play soccer, play it in the plaza,

not in the patio while I'm trimming the bushes!" When one leaves his home, he does not walk out the door into a hostile environment nor into someone else's home, but rather into a barrio that is neutral and at the same time his very own. And the roads that leave the barrio for the Zocalo leave from the barrio plaza.

This form is again replicated on a higher level. The town as a whole consists of a number of barrios clustered around or focused upon the Zocalo. Barrios, like homes and rooms can be distinguished functionally and personally. In Las Casas each barrio specializes in a particular function or craft. Thus there is the iron-mongers' barrio, the carpenters' barrio, a commercial barrio, and so forth. Likewise each barrio has a unique personality. It can be distinguished from other barrios on the basis of color, sound, smell and morphology. Barrios even tend to name their streets thematically. Thus the streets in Barrio El Cerrillo are named after towns in Chiapas, while those in Barrio Mexicanos are named after South American countries. Street patterns vary as well. In Barrio el Cerillo the blocks are very small and the street network is dense. In Barrio Santa Lucia the opposite is true. The physiography further demarcates barrio from barrio. The barrios cluster around the Zocalo just as the homes cluster around the plaza or the rooms cluster around the patio. Barrio entertaining is done in the barrio, but other sorts of entertainment transpire in the Zocalo. If there is no one hanging around in one's plaza, one goes down to the Zocalo. This way one leaves one's barrio and enters not a hostile world, nor necessarily another barrio, but rather a neutral ground. And in Las Casas the roads leaving the city all run from the Zocalo.

Various non-spatial activities are replicated as well. Thus each home has its own alter, even if it is only a votive candle. Each barrio has its own church. And the town has its cathedral associated with no particular barrio. A family will hold a party in its own household patio. The barrios have barrio fiestas held in the barrio's plaza. So the town of San Cristobal has fiestas that are held in no barrio, but in the Zocalo or on the hill of San Cristobal. Education, recreation, work, what have you--they all follow the pattern. The point must be made that these are not simply neighborhoods as in the U.S. In the U.S. there is no replication of spatial organization from the home to the city. Here neighborhood fiestas are rare and city fiestas neither universal nor frequent. To stretch the point, one could say that the Zocalo in Mexico City is the square around which the Mexican states cluster. In the U.S. such a point could never be even vaguely considered. That is the important and basic difference.

It is the understanding of the operation of this replication process that enables a person to find his way with ease through even those parts of the city comparatively weak in orientation and opportunity surface imagery. Were the questionnaire to have been administered on a barrio level, it is a surety that the same density of orientation imagery would have manifested itself. Squares that are relatively unimportant in the city image would have shown up in the barrio image. All the barrio churches would have appeared as significant landmarks. These local, barrio, micro-images were ironed out, lost in the vast number of items mentioned less than 5% of the time, lost in the attempt to find the macro-image, the image of Las Casas. It is not stretching a point to assert that Las Casas is indeed a legible city.

(Discussing all this in terms of legibility obscures the aspect, also enhanced in the replicative ordering of space, of communality. Thus one knows his neighbors as a member of such and such a barrio. A person in such a spatial arrangement always has a base from which to operate. In Mexico one does not step from the home into Mexico as one in this country steps from his home into the U.S. He steps first into barrio la Merced, then into San Cristobal, then into Chiapas, and finally into Mexico. The heightened

sense of security that results enhances communality. Before such a statement is accepted, however, exhaustive sociological studies must be carried out.)

As interesting as it is, the image of Las Casas that has thus far been explicated is, after all is said and done, but the shadow of the true and complete image. This is, unfortunately, not the place to go into a broad theoretical discussion of image "context", but what I mean by image context is quite simply this: up to this point in this paper, and up to this point in image analysis generally, investigation has ceased when a part of the visual image has been recorded. What these images consist of is little more than a visual ordering of certain elements. But man receives impressions of his environment with more than his eyes. His ears, nose, mouth, and skin as well as combinations of these are also at work. And man does not just move through space; he simultaneously moves through time. Of what use is it to a man to be found in space if he is lost in time. If, as Lynch maintains, it is disquieting to become disoriented in space, how much more disquieting it is to become lost in time. One of the most disquieting things for a worker on a swing shift is to wake up and know neither the time of day nor indeed the day itself. Time, then, is also an element in the image. Other considerations are also important, considerations such as culture, history and stage of development of the image makers. Language itself may function as an important organizer of both space and time. Then language too is important. The context of an image is, in other words, the combination of all the factors impinging upon it.

The total context of any visual image is and will remain, impossible to grasp. But in an attempt to begin understanding some of the non-visual aspects of the context, several questions in the questionnaire were asked concerning the color, sound, and smell image of Las Casas. One of the questions that needed answering was whether or not these elements could be seen as reinforcing or weakening the image discussed above. To open this more unusual series of questions a straight-forward question was asked the students concerning the color of Santo Domingo: "What is the color of Santo Domingo?" A simple question, it elicited a complex response. The 158 students that answered this question isolated a total of 38 colors or color combinations. Yet as wide ranging as the responses were, there was a consensus on the color of the church. Eighty-one students (51%) saw the church as yellow; another 28 students (17%) saw it as "dorado" or "rosado". It is all of these. This sort of response, a consensus of opinion surrounded by an immense range of opinion, typifies the responses to all the color, sound and smell questions.

To briefly summarize the color responses: the students perceived distinctions in color between barrios. Barrio el Centro was seen as distinctly more colorful than Barrio Mexicanos. Furthermore, Barrio Mexicanos was seen as being red and white (an observation subsequently borne out by the inhabitants of that barrio in a later question) while el Centro was simply seen as being extremely variegated. Students were also able, in those cases where sample size was sufficient to allow for generalizations, to perceive a color or color combination as being typical of a given barrio. Thus nine out of ten students living in Barrio Guadalupe saw their barrio as being blue and white. Eight out of nine students inhabiting Barrio Mexicanos saw their barrio as being red and white. Seventeen out of twenty inhabitants of La Merced saw their barrio as being yellow with some red. And so forth. That the students were accurate in their statements was born out by field investigation. The point is not really that color differentiated one part of the city from another, but rather that the inhabitants of a particular barrio were aware of this. As to the color of Las Casas as a whole, 111 of 128 students agreed that it was very colorful indeed.

UNOS SONIDOS DE SAN CRISTOBAL A TRAVES DE UN DIA

Los puntos representan varios partes del día. Punto 1: levantando, 2, el amanecer, 3, el mediodía, 4, la tarde, 5, el anochecer, 6, la noche.

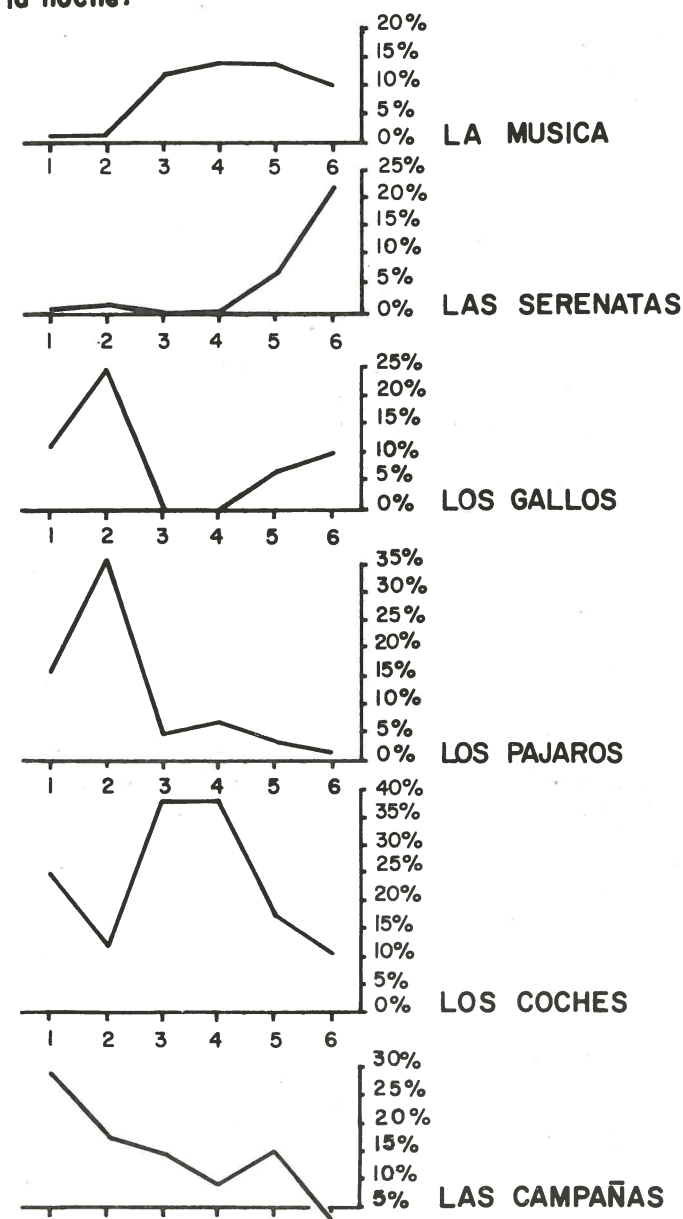


Fig. 6

This led to the series of questions on the auditory image of Las Casas. There were ten of them as follows: 1) What sound of the city do you hear upon awakening? 2) What sound or sounds do you associate with the morning? 3) With noon? 4) With the afternoon? 5) With the evening? 6) With the night? 7) With the summer? 8) With the winter? 9) With your barrio? and 10) With Las Casas as a whole? Some of the results have been plotted in Figure 6. For the first six questions response was excellent: no less than 101 and as many as 158 students answered each question. Less than half as many responded to the remaining questions, ranging from 31 to 60 responses. In general the results can be summarized as follows: each arbitrarily selected time segment has its own characteristic sound signature. Thus dawn is characterized by an ensemble of sounds the four strongest elements of which are, in order, church bells, cars, birds and roosters; at noon the four strongest elements are, in order, cars, bells, music and airplanes; while at night they are serenades, music, cars and roosters. Certain elements were ubiquitous, but the degree of their dominance varied considerably across time. Thus cars are heard throughout the day but they only dominate noon and afternoon. Roosters too were heard most of the time, but they were most audible in the mornings and nights. Serenades, on the other hand, were significant only in the evening and night. Every period of the day is, as it were, signed by the sound of the world. This is one way in which the temporal image is made legible. The seasonal distinction was weak, although 42% of the summer respondents heard birds while none of the winter respondents did. The barrio and Las Casas images were identical regarding the three highest responses which were, in order, music, noise, and bells. The last four questions, however, elicited, in general, minimal information.

Unfortunately, the same is true of smells. The same series of ten questions was asked regarding smells, but the number of students responding was considerably less, the range running from 17 to 76 respondents. As a result the smell image is considerably less clear than is the sound image. For this reason the smell elements have not been graphed, although the same sort of thing could be done. The smell of flowers, for example, which accounts for 42% of the morning image, accounts for only 6% of the noon image (sample size 69 and 72 respectively). And thus exhaust fumes make up only 1% of the morning image but 33% of the noon image and food rises from 7% to 38%. At the same time, morning to noon use of the word "refrescante" drops from 20% to 1%. For this part of the day a very clear image emerges. Mornings smell good, fresh, and of flowers. Noons smell bad, of food and exhaust fumes. The sample size drops to 21 by the time night is reached and thus I do not generalize about these latter time segments. As in the auditory image the first three items in both the barrio and general Las Casas smell image were the same. These were, in order, flowers, clean, and agreeable. With the addition of the word "perfuma" we can, with these four elements, account for 67% of the mentions for a sample of 62 students. Las Casas, then, has a smell, and that smell is generally a pleasant one and this fact is recognized by the inhabitants.

With no more than this brief run through the data it is easy to answer the question posed above. The color, auditory and smell images do indeed reinforce the image of Las Casas as portrayed on the maps. This is particularly true of the color and to a lesser extent the smells. However it must be noted that the sound and smell information was not critically examined for areal differentiation. What was noted about these two image elements was that they aided in the ordering of movement through time. An environment that is ordered along both the temporal and spatial dimensions must be at least twice as satisfying as one ordered along only one dimension. However, before image analysis reaches the levels of sophistication necessary for it to be useful as a planning tool, devices for eliciting the various non-visual sensory modes must be perfected, and techniques must be invented

for getting at the temporal image of a given place as well as investigating and understanding the role time plays in our spatial existence.

Yet my point in presenting this paper is not merely to show that image analysis must become increasingly sophisticated. Image analysis is valuable, but no matter how legible a living space is, that alone is not enough. Legibility, clarity, without communality is nothing more nor less than sterile sanity. Spatial replication, as discussed above, may well be one avenue leading towards a communal, social, if you will, living space--a living space, that is, that is not only articulate but human. But it is just not enough to walk out of your house onto a street and know where that street goes. It is not even enough to walk onto that street and know that in some way that that street is your's. And it will not be enough until you can no longer walk out of your home at all, but simply into larger and larger homes filled with more and more family.

ORDER OUT OF CHAOS: THE SAN CRISTOBAL MARKET

jeremy anderson

With but a scant week to map the central functions in a Mexican town of some thirty thousand inhabitants, I assiduously avoided coming to grips with the large (block-sized) market for four days. To be sure, I did plunge into the human maelstrom on several occasions, simply to assure myself that it was for real - all those people really were there to compare, bargain, buy and sell. (see Figure 1.)

But the melange that assailed one approaching the market - the human pyramid of bodies seated upon, or climbing up and down the front steps; surging masses of people among a potpurri of stalls that made Spag's look pale in comparison - seemed too crowded, too complex and too chaotic to admit the orderly classification demanded by one's academic training.² But thanks to a sturdy, though shock-absorberless rental bike, the remainder of the town had largely been mapped in the time allotted, and the market loomed increasingly large as a challenge, and indeed, the keystone, if the study was to be complete.

Several facts emerged to provide encouragement to the endeavor. First, successive visits began to reveal that basic hardware, stalls and canopies, remained fixed; they didn't evaporate at night. Thus, the stalls, inside and out, having stable and established locations could simply be mapped irrespective of their contents. Now look again - those stalls attached to the main market structure (a large building measuring some 105' x 210') and within it were provided with storage-display cabinets and wooden doors or lids that were secured with an imposing array of bolts and padlocks each night, and reopened by the same faces each morning. And much of the perishable and low value merchandise on smaller free-standing stalls outside was merely packed away in baskets or secured by tarpaulins and ropes, indicating that their sellers were planning to return for at least another



day - so why shouldn't I? The following day found me equipped with a crude but workable sketch map of both the interior and exterior stall configuration of the market, and ready to attempt the impossible.

Have you ever noticed the territorial imparative exercised by 'petite' (or in this case 'pequenito') bourgeoisie? Each has his stock arranged in neat rows or piles, and each pile has its own distinctive style. Thus was the bulk of the market land use recorded in one morning and checked the next day. (See Figure 2.) From this emerged a clear image of a remarkably orderly and specialized spatial arrangement - the market has a number of distinct areas devoted almost exclusively to the sale of a single class of commodities: pottery, dried seafood, fruit and vegetables, corn and beans, meat, dry goods and hot prepared meals. (See Figure 3 and Table 1) Mintz, observing this same commodity clustering in Haitian markets, notes the convenience both to sellers, who can quickly size up the day's trade and rapidly establish prices and price changes, and to buyers, who know where to seek a particular commodity.³

Two problems remained: First, that of dealing with the myriad of ephemeral vendors, largely indians from neighboring villages who arrived daily by truck, bus or foot to sell a small bundle of laboriously produced or assembled goods on the front steps of the market, bordering on the main street into town. They do represent a truly ephemeral but nevertheless characteristic element in the market. The second problem concerned the volume of pedestrian traffic, representing the buyers, which pulsed through the market. Here my two trusty assistants were called into action to count the heads which would have made mine spin. While these latter results are based upon a very limited sample, they do provide fair approximations, at least of what was occurring at this particular time and day. The gross detail is summarized in Table 2.

Table 2

Summary of Ephemeral Vendor and Traffic Counts on Market Steps*

Active Vendors	155
Active Buyers	56
Spectators	81
Traffic up front steps	529
Traffic down front steps	392

*Data collected between 8:30 and 9:30 a.m. Friday, March, 1968. Vendor-buyer-spectator count by Ingrid Hansen Wood; Pedestrian traffic count by Denis Wood.

SITE PLAN



MARCH 1968



Table 1

Summary of Retail Functional Units in San Cristobal Market¹

Retail Function	No. Units in Market	No. Other Units in Town (Estimated) ²	Market Units as Percent of Town Units (Approx).
Fruit & Veg.	121	25*	80
Butchers	49	15	75
Dry Goods ³	30	60	30
Corn & Beans	20	20*	50
Seafood (Dried)	17	3	85
Hot Meals	19	35**	30
Pottery	10	10*	50
Canned Foods ⁴	8	20*	30
Salt & Herbs	5	3*	60
Baskets	4	4*	50
Eggs	3	1*	75
Tortillas	2	6	30

¹Data based on field survey, Monday-Saturday, March 25-30, 1968 for town as a whole; Friday-Saturday, March 29-30 for market. Enumeration of units for both town and market excludes the numerous ephemeral and itinerant street vendors who play a significant but undetermined role in the retail structure of both the market and the town.

²While an effort was made to map all functions in town it is estimated that lower order functions may have been underenumerated by 5 to 20 percent dependent upon their visibility and periodicity. Hence most of the figures in this column have been rounded up (ca. 10-15%) to take this into account.

³Dry goods - primarily cloth, clothing, ribbons, sewing materials, combs, soap, etc. - compared with almacens, clothing stores and variety stores (the latter selling primarily to indians) elsewhere in town.

⁴Mercados - selling a wide variety of canned goods and other processed foods.

*These items are sold as well by many of the several hundred tiendas (very low order convenience good shops located primarily in residences in residential areas) scattered throughout the town.

**The number of establishments serving hot meals in town may be underestimated by 30-40 percent since many bars may serve meals as well as tienda type establishments open only 2-3 hours per day.

NOTE: The scale of fruit and vegetable, butcher shops and dried fish establishments in the market tend to be larger than the average size of similar establishments elsewhere in town, while the dry good establishments are somewhat smaller on the average than their counterparts downtown.

For the ephemeral vendors, only rough impressions can describe retail items: a bag of tortillas or bundles of panela (native brown sugar), bunches of onions or gladioli, a bundle of pitchwood or charcoal or roughly crafted brooms or chairs, or a carefully crafted guitar or a fine hand-loomed chamarra (an important item of local indian costume). Here as well as for more detailed study of traffic and transactions, hourly, daily and seasonal time-lapse photography would add an immense measure of detail and insight.⁴

"So what?", a blase critic may ask. What is demonstrated here is that given a modicum of exposure, thought and common sense, as complex and sizable an assemblage as a large town market can be accurately imaged and ordered in a very brief space of time. Such simple accurate description is an essential first step to formulation of more profound questions - "What?" of necessity must precede "Why?" or "How?".

NOTES:

¹The inspiration, encouragement, and companionship of Ingrid and Denis is gratefully acknowledged.

²I am not the first geographer to be intimidated by the complexity of Latin American Markets. Several extant studies in the geographic literature deal only with macroscopic aspects (gross distributions, external relations, etc.) of such markets or describe a few markets in superficial terms. See, for example, M.B. Tracey, "Mexican Mercados," Journal of Geography, 49 (1950), 78-82; C.L. White, "Huancaayo and its Famous Indian Market in the Peruvian Andes," Ibid., 50 (1951), 1-10; and G.M. Wrigley, "Fairs of the Andes," Geographical Review, 7 (1919), 65-80. An important exception is F.W. McBryde, "Cultural and Historical Geography of Southwestern Guatemala," Smithsonian Institution, Institute of Social Anthropology Publication No. 4, (Wash., D.C., 1945), esp. pp. 104-128, who collected detailed information on the sex, home village, and commodity sold by all vendors in these town markets. Unfortunately, he failed to subject his data to any analysis, or draw any conclusions other than that women vendors predominated and tended to associate with others from the same village.

³S. W. Mintz, "Peasant Markets," Scientific American, 203 (1960), 116. Tracey, op.cit., p. 78 noted loose departmentalization; but failed to document it. McBryde, op.cit., p. 84, noting the conservative and static arrangement of the Solala Plaza, observed only "minor variations in comparison with the arrangement of 4 years earlier, when [he] had made a detailed map of it."

⁴The formal maps of the market plan were compiled from large scale airphotos generously provided by Evon Vogt and the Harvard-Chiapas Project, whose valuable assistance is hereby acknowledged.

the edges of the map. (At the edges of the paper, areas perforce cease but these areas are not bounded in a geographical sense.) Looking at the map, without reference to a smaller scale map, one cannot tell the dimensions of areas or space beyond the bounded area.

It would seem that as long as one has reference to a map of the world, there need not be unbounded space. Without such a frame of reference, there is unbounded space. As shown in Figure two, a smaller scale map can become the frame of reference for a larger scale map on which places that were points become areas.

III

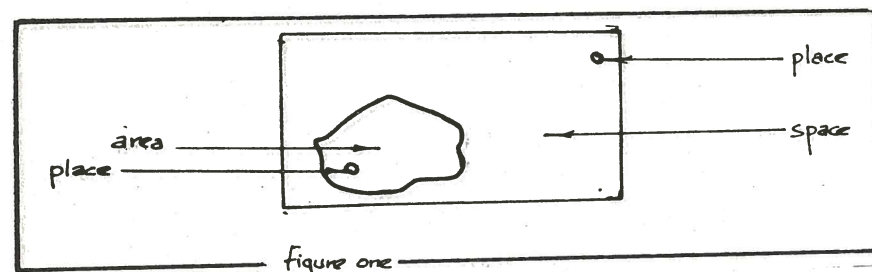
The situation changes when we consider the maps not as actual maps but as mental maps. Space is now the unknown world and is all unbounded. Area is known space. Place, as before, is a specific location, but it is a

NOTES ON THE MAPPING OF SPACE, AREA, AND PLACE¹

lewis daniel rosenthal

I

If we view the entirety of space² as a rectangle, area is that portion of space which is bounded; and place is a specific location in space, either in bounded or unbounded space. (see Figure one.) If the scale is reduced sufficiently, place becomes a point; if the scale is sufficiently enlarged, place becomes area and the former area may appear to be unbounded space. These changes are illustrated in Figure two as follows: Map IA is a reduction in size of Map I. The designations are retained. Map II repeats Map I

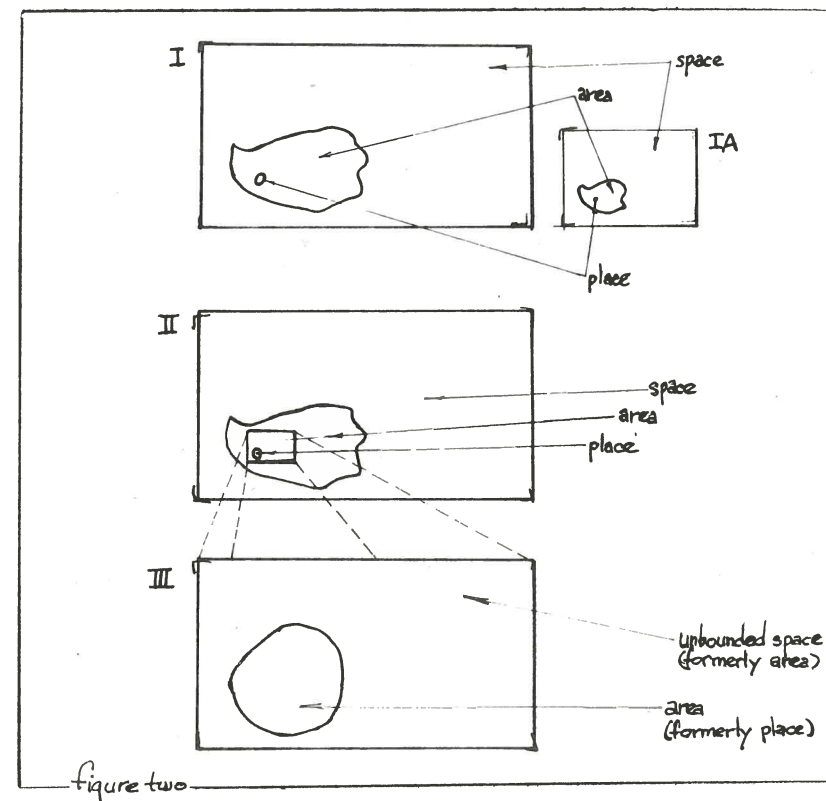


except that a portion of the area in Map II is selected for enlargement. Map III shows that portion enlarged. The former place is now area and the former area now appears to be unbounded space.

II

Is there any unbounded space on a world map? Since, on a world map, all potential space is bounded, the map has no unbounded space.³ Is there any unbounded space on a portion of a world map? There may be unbounded space at

(2)



learned location and it must be assumed that such specific locations are only in known space, i.e., in areas. The contrasting views are set out side by side in Figure three.

For the mental mapper, there is no frame of reference other than the known area itself; the spatial dimensions are equal to, identical with the areal dimensions. The more restricted in size the known area, the greater is the space unknown to the mental mapper.

In the situation of actual maps, if space is considered a closed system (i.e., the earth), area, a sub-set of space, can be considered an open sub-system with its upper limit the closed system of space. These statements apply only to the portrayal of the two-dimensional surface, not to the data about that surface. The data are infinite.

Applying systems terminology to the mental map, the individual's mental map is a closed system consisting of area or bounded space with a possibly numerous but finite number of places and a finite amount of data. We can open the closed system of area or known space with inputs of information about unknown areas, about places lying outside known space; that is, with inputs of information known collectively or by means of individual discovery.⁴

IV

The above discussion subsumes the knowledgeable world of the cartographer and the "imperfect" knowledge of the mental mapper. The dichotomy may not be accurate. The actual map is in itself a form of mental map, that is, a selection of a portion of reality.⁵ Areas are chosen from an infinite number of possibilities. Size of frame, scale, data are likewise chosen from an infinite number of possibilities. These possibilities, in their infinite range, are analogous to the infinite range of discovery in an unknown world, the unbounded space of the mental mapper. The cartographer and the mental mapper each sets bounds to the infinite, the first by his deliberate choices, the second by his experience.

The cartographer and mental mapper are similar in another sense and it has again to do with the unknown world of the mental mapper. In the same way that the latter ignores (because he is unaware of) unknown space, the cartographer ignores data unknown to him. This suggests that the individual cartographer's effort again is a form of mental map in that he cannot take cognizance of data he has not learned no more than the mental mapper can take cognizance of space or places which are unknown to him.⁶ (see Figure Three).

This suggests further that there is an absolute reality that cartographers both individually and as a group have learned about imperfectly, and they are no different in this sense from the mental mapper. Any difference between the two is a difference in the degree or extent of learned data. Cartographers are seen as somewhat better-informed mental mappers but mental mappers nonetheless.

If the concept of "absolute reality" is discarded and we substitute for it perceived reality, we then attribute to the cartographer heightened perception compared with the mental mapper. This, too, may be quite inaccurate. One could argue that the mental mapper's perception of a specific location or area is heightened much beyond that of any cartographers whose knowledge is often confined to intermediaries rather than to direct experience.⁸

In place of reality - concepts, it may be more useful to consider the mental set utilized by each type of map-maker. A mental set is defined here as the interrelatedness of elements.⁹ The elements appear in the form of data which the cartographer absorbs in accordance with a previously learned mental set. This learned set he utilizes to produce maps. The mental mapper, it is true, has his learned mental set of relations of objects in the environment but he utilizes it for other purposes which have nothing to do with mapping per se.

Our common sense tells us that the map of a place each of us has in his head is different in kind not in degree from the cartographer's map of that place. The mental set of the cartographer differs from that of the

CARTOGRAPHER		MENTAL MAPPER
DIFFERENCES		
SPACE	THE TWO DIMENSIONAL UNIVERSE OF THE EARTH'S SURFACE	THE UNKNOWN
AREA	BOUNDED SPACE; PLACE ENLARGED IN SCALE	KNOWN SPACE
PLACE	A SPECIFIC LOCATION IN SPACE; AREA REDUCED IN SCALE	A SPECIFIC LOCATION IN KNOWN SPACE
SIMILARITIES		
	UNKNOWN DATA	UNKNOWN SPACE
	THE INFINITE RANGE OF KNOWN DATA	THE INFINITE RANGE OF UNDIS- COVERED SPACE

Figure three

mental mapper. In fact, the cartographer's set is shared with other cartographers (and to a certain extent with the lay public) whilst the mental mapper's set is almost, if not entirely, personal.

While the mental mapper's view is personal, it can be and is culturally induced. But a mental map that derives from cultural imperatives contains within it a set of relations adhered to on an individual basis as the result of the mental mapper's personal experience.¹⁰

The cartographer's mental set depends not on his random experiences but on his training. We can say that he does not aspire to the portrayal of absolute reality nor its substitute, perceived reality. Rather, he absorbs information (data) and attempts to organize it within the framework of an agreed set or system of relations.

Every cartographer is a mental mapper, or course, but not every mental mapper is a cartographer. Data perceived by the cartographer and by the mental mapper are handled differently by each. The cartographer fits the data into his mental set in order to produce a map; the mental mapper fits the data into his set in order to function in his environment and the mental map he "produces" is incidental to that goal. To the cartographer, map production is the goal.

It may be of more than passing interest to discern something about the mental map of the cartographer. Is his different? If so, in what way? That is, in the cartographer's attempt to function in his environment, does he conceptualize or visualize differently from non-cartographers? I hypothesize that within the same culture and environment (both in the broad sense) the cartographer's mental maps would be as personal to him as is the non-cartographer's. And the variance within the cartographers as a group would be no different from that of non-cartographers. This has still to be demonstrated either way.

V

In summary then, we can distinguish the two types of mapping as follows:

In cartography, there is infinite choice of the size of unbounded areas or unbounded space. There is an infinite choice of specific locations.¹¹ In actual maps, which simulate or symbolize or represent portions of the perceived real world, there is an infinite variety of data and scale from which to choose. In cartography, we recognize a difference between area and space and offer an infinite choice in the relations between each. Finally, there are unknown data which are the cartographer's counterpart to the mental mapper's unknown space.

In mental maps, specific locations are finite in number; known space (area) is finite. For the mental mapper, there is only known space; unknown areas and unbounded space do not exist.¹² In mental mapping, there is no difference between area and space, area being finite known space, and unknown space being non-existent or conceptualized as infinite in extent. Further, specific locations are finite in number because only known locations are counted. Finally, there is a fixed amount of data (that which is retrievable) and a fixed scale (that which effectively portrays the known.) I don't know how to deal with the "size" (i.e., the frame) of the mental map which presumably is also fixed.

The maps made by the two types of map-makers thus are different but both are motivated by a universal desire to set bounds to the infinite.

Footnotes

¹These notes were prompted by a reading of Peter R. Gould's "On Mental Maps", Michigan Inter-University Community of Mathematical Geographers, Discussion Paper No. 9, September, 1966. I am grateful to Dr. George F. McCleary, Jr. for his encouragement and advice on an early draft of this paper and to Mr. Ben Wisner for his comments and suggestions on several points in the final draft.

²space: the two-dimensional universe of the surface of the earth.

³See Derwent Whittlesey, "The Horizon of Geography," Annals of the Association of American Geographers 35 (1945) p. 13.

⁴Gould, op.cit., p. 52. Whittlesey, op.cit., pp. 1,2.

⁵Arthur H. Robinson, Elements of Cartography, (2nd Edition; New York: John Wiley & Sons, Inc., 1960), pp. 1, 2.

⁶John K. Wright, "Terrae Incognitae: The Place of the Imagination in Geography," Human Nature in Geography (Cambridge: Harvard University Press, 1966) pp. 71, 72.

⁷Wright, "Map Makers are Human: Comments on the Subjective in Maps," ibid., p. 33.

⁸ibid., p. 34.

⁹It would be more correct, from my point of view, to say phenomena rather than elements; and that a mental set is an ordering of phenomena, the relations among phenomena being inherent in the process of perception itself leading to cognition of phenomena and to the mental set. This is a phenomenological point of view and need not be accepted in order to accept the emphasis on mental sets. The latter can be present in the presence of reality concepts.

¹⁰Gould, op.cit., p. 4.

¹¹Specific locations are infinite in number if there is no restriction on size. As area is enlarged, i.e., as the scale changes from small to large, the infinite number of specific locations is correspondingly increased.

¹²In a sense, the totality of unknown areas or unbounded space is infinite, one, finite, or perhaps zero. As soon as we suggest that the unknown areas exist or that there are one or more, are they still unknown? Not to the observer, perhaps. To the mental mapper, however, there is only the known world or known space. He cannot effectively map anything else. I am saying again, in effect, that area and space are one to the mental mapper however much his culture may make him aware of the possibility of more space.

The Historical Existence of Spatial Geographers

Do I exist? Some historical geographers have asked this question and others have not. Let us now examine a few examples extracted from earth. In olden days when there were no cities, no one realized there was a barren landscape, then through diffusion of cross sections Manhattan was founded on solid rock. This is why there are big buildings in New York, but New Jersey is still a swamp for pigs. By examination of the landscape in this fashion, we, as historical geographers, can offer oversights from the horizons of space. Let us now turn to another problem. Why do Celts hate cities, but work in mines. This is easily explained by their culture.

Elaborate frameworks are needed to understand the influence of baloon construction after the Chicago Fire. If we trace all the factors in the sand, we will find that at high tide we have nothing but new shorelines to conquer. In reality our problems as historical geographers are very simple, it is only in dreams that they become complex and disturbing. This is why we should all be sure of ourselves. Why look into the past? In the past this has been said. Therefore, let us examine a few more examples. First, the Holy Roman Empire, then the Roman Empire. Because everyone brought elephants across the Alps we can see the spatial connotations of this. Thus, we as historical geographers are stepping on nobody's toes when we want to plead for our uniqueness. By looking into old houses along Greek trade routes we will offer Mankind a glimpse of old houses along Greek trade routes. Do I exist? Some historical geographers have asked this question and others have not.

Envelopmental Prescription

One of the things that we do not notice when we look at the envelopment around us is how envelopmental it really is. This we do not see. Throughout the history of the earth there have always been terror icons which have been displayed to ward off the unknown envelopment. We realize today, in our modern world, that terror icons are but a manifesto of the greater envelopment. To these gross thoughts I wish to add my own thoughts. I have three at the present: 1) one, 2) two, and 3) three. This triptych may be reclassified in the ordinal tense, known colloquially as the First-Second-Third Thoughts.

The latter half of these exploratory remarks on the envelopment will increase with length as the core of my remarks are interpolated. We have already seen from examples illustrated last week that to be envelopmental is not necessarily a bad thing, except that we must be aware of what we are doing together. In actuality, we may transpose the problem at hand by stating that envelopmental togetherness is but a generalized propagation of single envelopments. We now understand this, although in the Eleventh Century we did not. In the broader complex of time it was not until quite recently that we, in fact, began to understand the Eleventh Century, in situ.

What have Geographers, as we, to tell us of the varigated landscapes of envelopmental prescription? What paths have we to turn to ourselves to explore? What vestigial horizons are to be mapped in the pathways of our minds? What are the ways we may know the concreteness of our souls? What are the small islands of hope to which we might turn? These are all serious questions indeed - for Geography and Mankind as well. Let us begin research tomorrow when we awaken, but let us now sleep soundly, knowing the British Empire.

The Economics of Active Location

It has been often said that Geographers get very active in the context of location. Let me now trace the development of these brief, prefacing remarks. In ancient times every one slashed and burned. Today, this is not so. In our modern world of interregional trade everyone is in the tertiary sector. If we attach weights and pulleys to ourselves, we are propelled through the economic landscape to optimization of factors. If we then modify our theocratic system by crystalization we are encapsulated within hinderlands. Thus, when we want to find the nicest place to build a steel mill, we look to the east, then the west, then the north, and thence to the south. This is why pigmeat is sold in markets.

The transposition factor is very important also. Thus, if we travel across our imagery, we may envision ourselves every three miles, or if our system warrants, every seven miles. This depends, on the Age of Technology. But, this does not answer the basic geographic question: what is the capital of South Dakota? This must be answered by modifying our preconceptions of man as we would a donkey. Why does man localize, do you? Some have suggested attaching pulleys to ourselves and actually traveling over the economic landscape, but we already tried this from above. Others have recently proposed all the factors, but this would require a compass. Thus, the task for Geography, and Geographers is to look around and pick up what you can while we are still young.

THE WISDOM OF SAUL
saul b. cohen

My report for the year could consist of a review of School of Geography developments, which have continued unabated. The faculty has been strengthened (through appointment of Gerald Karaska as Professor of Geography and Editor of Economic Geography, of Leonard Berry as Professor of Geomorphology and Hydrology, and of Lawrence Lewis as Associate Professor of Geomorphology [beginning in 1970-71]). Our graduate program is in the process of being completely restructured by a joint faculty-student committee (both candidates being admitted directly to the doctoral program and with greater formal emphasis on concentrations or sub-programs). Our joint faculty appointments (in History, Psychology and Government) are helping to develop more meaningful cross-disciplinary links. The quality of incoming students continues to improve and Clark's attraction to outstanding Geography students is on the increase (of the 27 applicants that we have accepted for next year, 80% have agreed to come). Our physical space problems will, hopefully, be solved within a year, as the Old Library is converted into a new Center for Geography, History and Economics (the first two floors will be devoted to Geography and additional renovations will be made in the workroom). Continued, large-scale federal support for new research and training programs has marked the year (with nearly half a million dollars from the Office of Education for improving the quality of prospective college teachers; with the initiation of a proposal to further the development of Geography among Black students and Black institutions through the AAG's Committee on Geography and Afro-America; and with the judicious use of the N.S.F. Departmental Development Grant).

However, I want to devote my message this year to broader issues, issues to which we are addressing ourselves within the School of Geography as we seek new paths for faculty-student action and issues with which society in general must grapple. During the academic year, in my capacity as Dean of the Clark Graduate School, I presented the following address to the student and faculty bodies, and would like to share it with Clark Geography alumni.

GRADUATE EDUCATION AND THE UNIVERSITY CHALLENGE

"The crisis that grips the American University is more than a mirror of society's ills, it is its conscience and its catalyst. For Higher Education is on the way to becoming the driving force for societal change--it is developing as a social organization without parallel, capable of unleashing seemingly inexhaustible human energies in the service of man. Think for a moment of what is involved: nearly seven million students, half a million faculty, thousands of administrators. This is a force that can influence progress and change as has no other force on the contemporary scene, because it reflects no single, narrow interest group and yet possesses the intellect, the leisure, the restlessness and the verve to seize the initiative in the political and social arena."

"The problem, at this moment, is one of limited focus, myopic objectives, desire for power without concomitant responsibility and lack of unified leadership. We in Higher Education are thrashing about in our search for a role, and have done little to seek unity of mind and effort. Students reject faculty, faculty mistrust administration, administration avoids intellectual confrontation with students. The student rebellions on campus; the rallying of students and faculty to the political wars; the alliance of government, industry and the university; the international commitment of the university; the struggle over university managerial control--these are the elements in the process of change out of which we must forge a new institution in the service of society."

"The critical question is - "Who is to take the initiative?" Who is to lead in the quest for University Power and University Responsibility? I speak not of Student Power without Responsibility, and not of Faculty Power without Responsibility. For these movements are neither responsible to society nor are they responsive to the views of the university majority. The answer to the question of who should lead must be Graduate Education. For it is in Graduate Education that the best prospects for a genuine coalition of student, faculty and administration lie; it is from Graduate Education that accumulated experience can most readily be drawn, and it is through Graduate Education that leverage can be most effectively wielded to change the university and to influence society."

"Graduate education in recent years has had its share of critics. The criticism is well-founded, even if so much of it describes the obvious and neglects, either willfully or from ignorance, to note the very real changes and desire for change in Graduate Education. But the basic criticism remains--American Higher Education is essentially organized in the image of Graduate Education, and is led, in the real power sense, by those who have been created and nurtured by our Graduate Schools. General change will not come about without the concurrence of Graduate Education, and Graduate Education cannot change others until it changes itself."

"If the University needs a genuine dialogue amongst faculty, students and administrators, then the dialogue first must take place within Graduate Schools. If the University is to mobilize itself as an institution to serve community and society through new and direct programs, then these must emerge from Graduate Schools first. If the University is to play its role as initiator of social change, not simply through vehicles of dissent which fail to substitute reasonable alternatives, but through constructive, programmatically-oriented change agents--then Graduate Education has to lead the way."

"We are assembled at Clark--the second oldest of America's Graduate Schools and an institution which is strong because of its tradition. Were Clark Graduate Education to rest upon tradition alone, however, its function would indeed be in question. For as the smallest of all major Graduate Schools, we are vulnerable in terms of diseconomies of scale, especially from the standpoint of scholarly breadth. But we at Clark are tradition-rich, not tradition-bound. We are seeking new pathways--in cross-disciplinary lines, in programs of greater social relevance, in internationally-framed endeavours. We are just at the beginning, but our efforts can be speedily rewarded because we are so small, because innovation is highly visible, because our faculty is such a concerned faculty. We need help from our Graduate Students--in the seminar rooms, at the research benches, with undergraduate students, with faculty, within and among departments, through programs that reach out to the widest of horizons."

"What happens at Clark can count for the individual and for the American University. I firmly hope and believe that the American University can become the spearhead of a major National Service Program, an effort far more meaningful to the individual and to society than compulsory military service. A good deal, if not all, of a National Service Program could be managed by the university, with the one to two year's Service as part of the teaching-learning experience. From the Corroded Inner City to the Veneered Suburb, from the squalid Black Belt to threadbare Appalachia, from the teeming barrios of Latin America to the hand-worked bush of Africa there is much to be done if we are all to survive. It is a task, not for thousands as is now the case, but for millions."

"This is no time for Graduate Students to sit back, relaxing into the comfortable niche that has been carved out by their predecessors; it is also no time for Graduate Students to opt out in alienation and dissent. It is a time to reach out and press for meaningful programmatic change within the university and for responsible service outside. We in the faculty and administration cannot do it ourselves--neither can students. But if students come half way, faculty will be on hand to meet them."

"So welcome to Clark on this 79th year of its history as a Graduate School. Welcome and help us find new pathways--not in narrow, isolated, and often irrelevant scholarly pursuit, but in broad, cooperative and societally-oriented intellectual attainment."

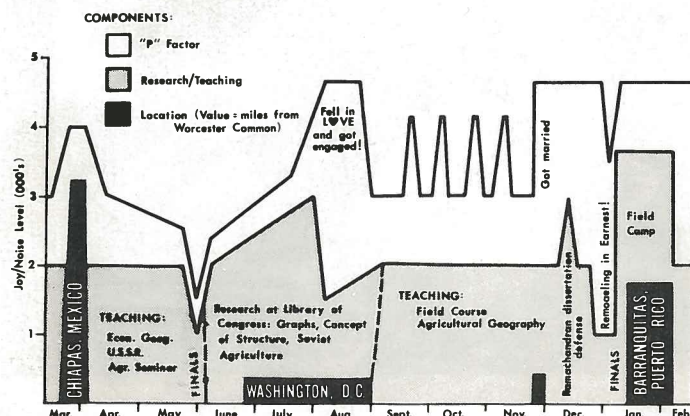


SCHOOL OF GEOGRAPHY
by itself

CARLOS ALSINA

Carlos came to Worcester from Cayey, Puerto Rico after receiving a B.A. in Economics - 1966 and his M.A. in Economic Planning - 1968 from the University of Puerto Rico, Rio Piedras. His M.A. Thesis - Economic Base Study Cayey, Puerto Rico. He is studying at present for his Ph.D. in Economic (Quantitative) Geography, specializing in Resource Management. His experience includes: Institute of Geography - Clark - U.P.R. 1968; Institute of Comprehensive Planning - Israel - 1967; Institute of OEA (Agricultural Planning) Dominican Republic - 1967; Summer studies travel to South America and the Caribbean area - 1966. Articles and papers (in press) are "The Economic Potential of Vieques, Culebra, and Mona Islands"; "Housing Planning in Israel" (field work done while visiting Israel); "The Planning Process in Puerto Rico: Limitations, Possibilities, and Perspectives"; "A Re-Consideration of Social Account Systems in Developing Countries"; "The Future of Latin American Economic Integration". His future plans are to work at the University of Puerto Rico and Puerto Rico Planning Board and is looking forward to travel to all regions of the world.

JOY/NOISE LOCO-CHRONOGRAPH
J. Anderson 1968-1969



ROBERT BLACK

Bob is now completing his final semester for his doctorate degree. He will depart for Southeast Asia during the summer for a year's research on role of urbanization in economic development. Tentative title: "Spatial Aspects of Urban Systems as a Function of Development: A Case Study in the Mekong Basin". He may remain in Southeast Asia for a few years teaching and discovering the role of the geographer in development and the "Third World".

PAUL A. BLACKFORD

Paul is a Ph.D. candidate. His short range goals - ? What he has been doing - "The less said the better". Papers -----.

DR. MARTYN J. BOWDEN

The summer of 1968 was spent in the John Rylands and Chetham's libraries in Manchester; the Picton and Cohen libraries in Liverpool; the Chester and Denbigh county libraries working on Viking Settlement in North Wales and North West England. Some experimentation with simulation models was conducted, with the aid of Roger Hart, in Hafod Bowden, North Wales. In the early fall two monographs were seen to the printer - both results of January Study Projects. Expressway and the Town: The Growth of Oxford, Massachusetts, 1955-1985. Before and After the Completion of Highway 52, appeared in September and served its general purpose of encouraging Oxford's citizens to pass a comprehensive zoning ordinance. The Water Balance of a Dry Island: The Hydroclimatology of St. Croix Virgin Islands and Potential for Agriculture and Urban Growth, was published in October as Volume 6 in Dartmouth College's Geography Publications series. As a follow-up, a paper was presented at the 2nd Environment and Planning Conference in San Juan, December 1969: "Microclimatic Regions and Future Agricultural Policy: The Case of St. Croix, Virgin Islands". The proceedings are now in press.

Further work was done with undergraduate majors on the Marketing and Culture project in the Virgin Islands but it was decided to extend the sample in January 1969. Sixteen students were taken to the Virgin Islands for a 3-week field experience in January 1969 and the Water Balance Study was extended to St. Thomas, St. John and Tortola. In addition, highly encouraging work was done by the freshmen on the perception and reality of climatic change and drought. These results will be published in the summer of 1969 by the Caribbean Research Institute as two studies - Climate and Water Balance of St. Thomas, St. John and Tortola, and Drought and Climatic Change: Perception and Reality.

The second conference of the New England-St. Lawrence Valley Historical Geographers Special Interest Group was organized at Clark in November. A panel discussion was held on the first evening and this was followed by a full-day session in which 9 papers were presented. The event was made memorable for all of us by the presence of the late and much lamented John K. Wright whose paper was a mixture of the scholarship and puckish humor that he combined so well.

Work this spring has focussed on a reorganized course in settlement geography and networks, and on research in historical geography. A paper will appear in the Proceedings of the AAG in June: "The Perception of the Western Interior of the United States 1800-1870: A Problem in Historical Geography".

The summer will be spent in completion of the viking settlement project, further work in the historical geography of the Great Plains, and on the perception and reality of downtown and central districts.

CHARLIE BROWN

Charlie is our progressive teacher from Northern Vermont. He has developed an urban renewal game and a community analysis curriculum. We could call him our urban social geographer -- amazing stuff for a small town teacher. Charlie is a snazzy teacher-scholar, who has moved from the sport in a Corvette, to the family man in a Cadillac...and he still walks to Clark.

RUSSELL B. CAPELLE, JR.

Russ is a 2nd year M.A. student. Short range - M.A. in June (theoretically); Next year - Ph.D. elsewhere; Thesis title = ? (I used to know but am nowhere near sure now) (which, in itself, is not a bad thesis title, if your specialty is philosophy).

WILLIAM CAROLAN

BA University of Arizona; MS Oregon State University; began work at Clark February 1967; Am in a Ph.D. program; due to take preliminary orals this semester. Short range goals are to pass the orals; to produce a good dissertation topic; and to get working on the topic. Last year I devised the "Apt Map", a non-continuous cartogram by which social data can be researched and presented more productively than otherwise, and devised a system by which a series of studies on an "Apt Map" base can be reproduced quickly and inexpensively. (I wish I had a dissertation title!)

NORMAN T. CARPENTER

Norm received a B.A. in Russian Civilization from Dartmouth College in 1961. He worked as a military historian for a while, and is presently engaged in an M.A. program, most probably as a cartographer. He is interested in books, music and the less complicated aspects of electronics.

KANG-TSUNG CHANG

Karl is a Ph.D. candidate and would like to note the completion of his Master's Thesis, "A Psychophysical Study of Quantitative Map Symbols".

WILLIAM Z. CLARK, JR.

Bill hopes to finish his M.A. Thesis sometime this year. He spent most of last fall searching the midwest for a wife (found in mid-Wisconsin). He will be a Teaching Assistant at the University of Georgia next year (Ph.D.).

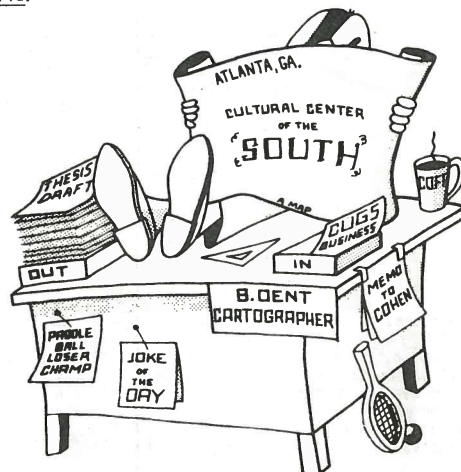
CHRISTOPHER CLAYTON

Chris is 24 years old (and eligible for only a few more short months!) He received a B.A. with Honors from Oxford in 1966 and his M.A. from Cincinnati in 1968. "What I would like the world to remember about me may well be as biased as what a biographer might write about me. Obviously I could say that I was a great guy and many people would disagree vehemently with that judgement". "I came to Clark to study Environmental Behavior under the faculty equipped to tell me something about it but I have not lost my interest in the more mundane (?) and traditional Urban-Economic Geography".

SAUL B. COHEN

Dr. Cohen's activities included, as they did last year, a wide variety of activities within and without the university. In July there was a trip to Israel (with family), which offered a combination of vacation, field tripping, and review of some of the research directions being taken by Israeli geographers. A second trip overseas, to Jerusalem and London in February, centered upon planning work for a U.S.-Israeli Geographical Symposium and upon continued work with Clarendon Press in preparing a new College Atlas. National committee work included the NAS-NRC Committee on Geography, USOE Advisory Panel for Training of Teachers of the Teachers, NSF Social Science Advisory Panel, CONPASS, the National Institute for Training the Teachers of the Disadvantaged, COMGA, U.S. National I.G.U. Committee, and the A.A.G. Council. This resulted in a heavy travel schedule to Washington and occasional trips to New York, Chicago, San Francisco, St. Louis, Atlanta, Detroit and Puerto Rico (the latter in conjunction with Field Camp).

Inside the university, Graduate School activities represented a heavier time investment than normal, given the nature of forces active on American University campuses and the need on the part of administrators to initiate rather than to respond. This, plus a major planning effort to restructure the School of Geography programmatically, left little time for research and writing. The one publication that did appear represents some of the labors of the past few years in dealing with the treating of the disadvantaged. It was Real Teachers for the Real World.



MIKE D'ARCANGELO

"Experienced Teacher of the year". Home is Long Island--no kidding.... Our expert on New York -- Mike has a study of the financial district of New York City. He has a paper discussing the effects of the Verazzano Bridge on Long Island. Also he has developed an exciting curriculum on the historical geography of New York State. There would never be a dull moment in Dynamic Mike's class. This year Mike and his family have seen more of New England than you would imagine! How many dads bring their pre-school children to play ball in the college gym?

ROBERT P. DONNELL

Bob is an H.E.A. Title V "Scholar". He is to receive his M.A. degree this summer (hopefully) and plans to continue for the Ph.D. either next year or the following, should he decide to take a year off to teach or do research etc. He presented a paper at the regional meeting (November 9, 1968) of the New England-St. Lawrence Valley Geographical Society (Hist.Geog.) at Clark on: "The Consequences of the Conflagration of June 25, 1914, upon the Industrial Structure of Salem, Mass." His M.A. Thesis: "The Dynamics of Locational Change in the North Shore Shoe and Leather Industry - The Effect of the Conflagration at Salem, Mass. June 25, 1914", under the direction of professors Bowden, Koelsch, and Peet.

JOAN DOWD

Trouble maker of the first year students! How many years will it take? "I have an infinite number of papers to go". Definitely a quality book... it has large print. Does CUGS have any money? ha ha Yes, there was wheat in the Shenandoah Valley in the mid-nineteenth century. Other studies include, land use and people studies in places ranging from Framingham to Barranquitas. Someday the urban/suburban problems will be solved! ...and maybe there will be development in the Mekong River Valley. "There has to be a better way to have an educational system." ...to quote the blond geographer.

GARY D. EAGLES

Gary is in the Experienced Teacher Fellowship Program. He will be a Graduate Assistant in Geography at Miami University, Oxford, Ohio. He hopes to get his M.A. degree in urban development and planning. His long range plans are either to stay in teaching and curriculum development or go into urban planning. His thesis title? Unknown for now, but will probably be in the urban field.

WILLIAM EMERSON

In 1969 Bill newly came to Clark with Faith and Hope for a Ph.D., fell and saw the Face of Doom consuming his species and biosphere. Will William press onward in the Face of Infinite Adversity in a World of Indescribable Inhumanity, or will he tune out, drop out, or psych out in a sudden burst of Sanity? Find out next year, same time, same place.

ROBERT FRENCH

Bob is interested in perceptual and field approaches to historical geography. His thesis is on the same with examples etc. drawn from Newburyport, Mass.

KENNETH GILMAN

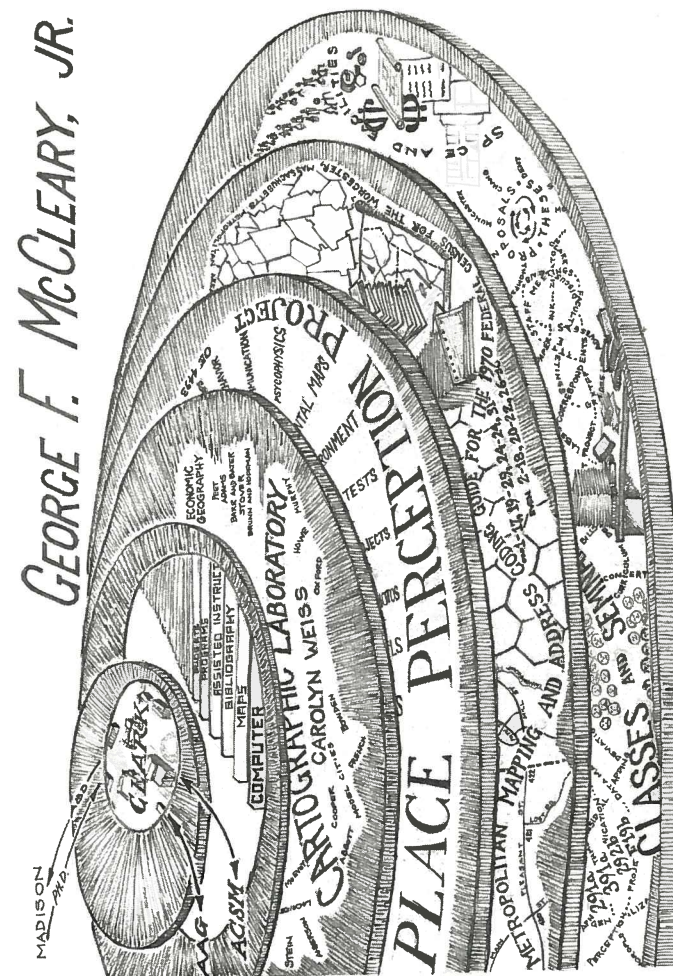
Ken is eventually hoping to get his Ph.D. in urban geography. "The Relationships Between Urban Geography and City Planning".

ANDY GOLDMAN

Is he a geographer? Indeed he is our first truly inter-disciplinary scholar. Andy was the first psychologist to come to the geography field camp. Wow! What a fascinating study! We can see the results when he gets through the mounds of data. He finally submitted his M.A. thesis--large volume that it is--yes--and he'll be here next year... working to complete the dissertation, getting the freshman seminar program off the ground, continuing as daddy of the graduate students---and generally, holding the university together. Where is Andy? Unavoidably arbitrating a university crisis. Whose office is he occupying now?

ARTHUR J. KRIM
Arthur received his B.A. from Clark in 1965, his M.A. from the University of Chicago in 1967 (M.A. Thesis, "Innovation and Diffusion of the Street Railway in North America.") He is currently a Ph.D. candidate - Dissertation topic - "Critical Image of Los Angeles: 1940-1970". His goals are dissertation research and completion in 1969-70; University position teaching and research. "Beyond 1970 - I would not hazard to make a predictive statement of what will actually happen".

DAVID C. McCauley
"I exist". Dave received his B.S.Ed. from Salem State (Mass.) College and his M.A. from Eastern Michigan University, and is in first year residence for Ph.D.
"I anticipate specializing in the Resource Management area, and I am currently learning to fly. I am not sure that I have ever done anything of consequence".





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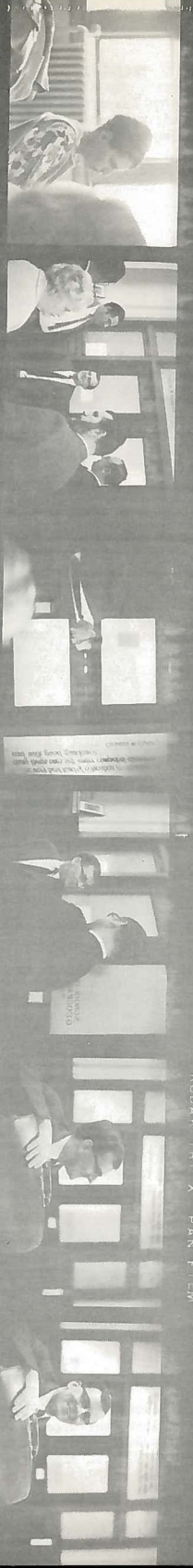


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HARRY McPHILIMY

"I am a part-time graduate student from U.S. Army Natick Laboratories with an abiding interest in Climatology, who hopes to pass his Ph.D. prelims this Spring".

BERNARD J. MAY, JR.

Bernie received his B.A. from Miami University in 1965; he spent 1965-1967 in the Peace Corps in Thailand. He is now a 2nd year M.A. candidate, presently seeking simultaneous solutions to thesis completion (Title: "The Influence of Airfares on Tourism in the Caribbean"), avoiding the Army, (legally), and job hunting, (in a non-academic setting), while maintaining working interests in remote sensing and general photography and movie making.

D. DAVID MILLER

Dave received his B.A. from the University of Durham, England. His interest is in Geomorphology.

BOB MORRILL

Would you believe a Spencer local with a cosmopolitan outlook? Bob is one of the brave ones to participate in the beginnings of the "Tripple T" program! Knows how to combine business and fun, i.e. trip to Florida this spring. His recent studies have concerned aspects of historical settlement patterns and modern urban/suburban sprawl. His interests range from small town politics...where all the debtors know each other...to a high school curriculum project concerned with Indian Settlements. He also developed an "urban renewal game"...definitely an innovative guy! Getting settled at Clark...the crew-cut had to go.

RUSSELL W. MUNCASTER

Russ received his M.A. from Clark in 1968. He is now working on his dissertation entitled "The Application of a Model for Mixed Central Place Hierarchies". The 1969-70 year will find him as Assistant Professor, Geography Department, Waterloo Lutheran University, Waterloo, Ontario, Canada.

J. RICHARD PEET

"This is wot I am doing - I received my meal ticket (Ph.D.) in August of 1968. I gave a paper to Martyn's meeting of historical geographers (whatever it was called - he will mention full name in his blurb you can be sure). My paper was called "American Agriculture in the Canal Era...". My article "The Spatial Expansion of Commercial Agriculture in the Nineteenth Century: A Von Thunen Interpretation" is to appear shortly in Economic Geography. My research interests at the moment lie in the direction of (a) the dynamics of agricultural expansion, and (b) the relationship between migrating agricultural zones and central place systems. I am "preparing" a book on agricultural expansion in the nineteenth century based on the concept of expanding world-scale von Thunen zones".

JOHN P. RADFORD

John is a Ph.D. candidate currently interested in sub-cultural urban analysis, struggling to remain urbane in an environment which is perceptive and resourceful, but frequently hazardous. He gave a paper on the inception of the Washington, D.C. ghetto at the historical geography conference at Clark in November, 1968.

D. S. RAJAH

Rajah received his B.A. (S.A.); B.A. Honors, and his M.A. in Natal. He was appointed a scholar in the Department of Geography (Clark) for 1968-69. His career objective is college level teaching at University College, Durban, Natal, South Africa.

LEWIS ROSENTHAL

Before he moves on to teaching at the University of Maryland, perhaps even before he completes his research on the political elite's perception of the environment, Lewis Daniel Rosenthal would like to see completed the movie on "Where is the Center of Holden" of which he is the producer.

SUE C. SIMONDS.

As a H.E.A. Title V Scholar, she has spent her first-year M.A. work exploring some of the areas available to geographers at Clark. She is planning on writing her thesis in historical geography, and has completed a paper on the historical geography of the Pennsylvania Mainline Canal, and is researching the historical industrial geography of Athol, Massachusetts. In 1968 she received her B.S. in Education from Fitchburg State College. She plans on teaching college, doing research, and eventually, obtaining her Ph.D.

BOB SPAYNE

Bob is Associate Professor of Geography and Geology at Boston State College. He is interested in Physical Geography and especially Geomorphology. He proposes to classify drumlines in eastern Massachusetts as a dissertation topic.

DAVID STEA

David Stea called himself a "psychographer" until he found that psychography is synonymous with handwriting analysis. He is now searching around for a new title, and suggestions are solicited. It is hoped that the following information will be of assistance to those tempted to submit an idea.

During the past year, efforts to distill a joint program in Environmental Behavior from the Psychology and Geography Departments have borne some fruit; and such a program is in the process of initiation. Hopefully, the initiation will be brief and the fruition lasting and abundant. Dr. Stea steadfastly contends that travelling broadens the program; in line with this contention, he delivered papers at meetings of the AAG, American Psychological Association, and the Sociedad Interamericana de Psicologia, and acted as visiting critic in the Schools of Architecture at North Carolina State University, The University of Washington, and the University of Montreal. Several publications are, as usual, in press; the interminable "Mexican Cities" project continues, and the Place Perception Project, jointly conducted with Professors Blaut and McCleary, forges rapidly sideways.

In his spare time, Dr. Stea lives on a street in Boston where he can hear Puerto Rican music by opening his bedroom window. He chases trains whenever possible, sleeps when unavoidable, and sketches on occasion.

REED F. STEWART

Doctoral aspirant in proposal shaping stage. Reed was one of three representatives from Kenya to attend a conference which largely shaped the secondary school geography syllabus for East Africa in April of 1968.

KAREN E. THOMPSON

Karen (Mrs. Donald B. Thompson) is currently working on her M.A. Thesis: "Map Lettering as a Quantitative Symbol".

MARGARET ANNE TINDAL

Margaret received her B.S. from Coppin State College in 1967; Baltimore, Maryland and is to receive her M.A. degree in 1970 with emphasis in Historical and Cultural Geography. Her goal is to do university or college teaching and writing, and "would like to be remembered for being me!"

EBENEZER NEGRON VAZQUEZ

Ebenezer came to Worcester from Santa Isabel, Puerto Rico. He received his B.A. in Economics from the University of Puerto Rico, Rio Piedras in 1965 and his M.A. in Economic Planning (Thesis: "Toward a Policy of Location of Industries for Puerto Rico") from the University of Puerto Rico in 1967. His studies at present are for his Ph.D. in Economic Geography, specializing in Resource Management. His experience includes: Institute of Comprehensive Planning - Israel 1967; Institute of Organization Agricultural Planning of American States - Dominican Republic during the summer of 1967. Summer travel studies in Haiti - Jamaica - West Indies 1966; High School Professor January to May 1968 (to avoid draft - Product of the Colonial Problem of Puerto Rico). His papers include (in press) - "Toward a Policy of Underground Water Management in Puerto Rico"; "The Organization of Agricultural Activity in Israel"; "The Colonial Problem of Puerto Rico and its Consequences Toward Planning Resource Management"; and "The Economic Base of Santa Isabel, Puerto Rico Present and Potential Development". His plans for the future are to work at the planning office in Puerto Rico and consultant in any developing country.

ANN L. VOLLMER

Ann is a first year graduate with hopes of obtaining her Master's Degree in Urban Geography.

HENRY J. WARMAN

Dr. Warman is Professor of Geography. His short range goals include (a) writing, editing and publication of a series of articles on "Nine Major Concepts of Geography and The Gradational Implementation of Them" for the Journal of Geography. These articles will appear first in the Journal, then be put into book form later. Eight co-authors are contributing to the work; (b) During second semester, 1969-70, revision and updating of the textbook "Geography - Backgrounds, Techniques and Prospects (for Teachers)" will be one of the goals. Part of this "leave of absence" semester and the summer of 1970 will be spent in Latin America, and in visiting some departments of Geography and Education in the United States. His long range commitments include (a) participation in the Training of Teachers of Teachers, TTT, Institute to be held at Clark 1969-1971. (b) Continued revision of the transparency programs on North America, South America, Europe, United States and the World. (c) Revision of the graded series "Living In Our Times", and the college text "Geography - Factors and Concepts". (d) Consultant work with Grolier Incorporated and Denoyer-Geppert Company. A new New England map has just been edited for the last named company and will appear in six weeks. A suggestion: During the second semester of 1969-70, if some of the Graduate School's Geography Alumni would like Dr. Warman to drop in and chat with some of your students, he would welcome the opportunities.

CAROLYN C. WEISS

Carolyn is Research Associate in Cartography. She received her B.A. in 1963 and her M.A. in 1966 from McGill University. Her Thesis - "Land Use in the Scotland District, Barbados". She has participated in the Remote Sensing Institute, University of Michigan, July-August 1968; AAG Meetings in Washington, D.C. August 1968; Puerto Rico Field Camp, January 1969; A.S.P.-A.C.S.M. Meetings, Washington, D.C. 1969. Her duties are redesigning maps to be printed in Economic Geography; assisting George McCleary in cartography lab, and organization of Remote Sensing Course. Her short range goal - "Hopes to be scanned at 8-14 microns".

BENJAMIN WISNER

Ben is a first year Ph.D. student. His geographical interests include: Theoretic: general systems, gaming theory and a phenomenological methodology for geography; Philosophic: impact of technology on man - environment relations, doomsday theory and the good, the true and the beautiful; Practical: peasant agriculture, decision making under uncertainty and the human ecology of environmental stress (nutrition, disease and other hazards). He is currently trying to define health and review medical geographic literature, working on logical taxonomy of hazards, small papers on agricultural topics including a decision model, trying to "free myself", and thinking about "homo in extremis". He is hoping to study biological hazard somewhere in the tropics (maybe Africa), e.g. "Environmental Behavior and Cognition of the Human Host Within a System Containing Such Pathogens as Schistosoma Mansonii".

INGRID WOOD

Ingrid is an M.A. candidate. "I have hopes that I will and fears that I won't finish my M.A. thesis by June. Subject: Spatial Behavior Models of Market Places in Traditional Agricultural Societies. My most notable project of the past year has been trying, together with Lew, to keep a geranium alive in the workroom".

DENIS WOOD

The first part of the summer of 1968 was spent in Rio Piedras, Puerto Rico, running an NDEA institute in the Cultural Geography of the Caribbean. Through no fault of my own, the institute was neither cultural or Caribbean, but managed, nevertheless, to be astoundingly successful; and if not successful, at least fun. The water balance of the summer was spent reaching Peter Yates and Dashiell Hammett in a hammock in Cleveland. In the early fall, no monographs were seen to the printer's but some papers were turned in, in a futile attempt to eliminate incompletes. As a follow-up, Lewis Daniel Rosenthal, producer of a movie "Holden Center," engaged me as director-editor-scripwriter. Proceedings of this effort are still in the editor. The big punch for the first semester was in the area of University-Worcester relations: I wanted the townie teenagers allowed to hang out in the Student Union, while others wanted them thrown out. Fortunately for Clark, it has such insightful individuals as Dean Topkins and Professor Kvaraceus connected with it, and the issue was well joined. The townies didn't win, but no one went to jail either.

Intercession was fulfilled by marrying the former Ingrid Hansen on January 17th in Barranquitas, Puerto Rico, after which a grand party was held in celebration at the Field Camp. At least half the town showed up for an evening of beer, coke, and loud music. We returned from Puerto Rico with two young boys from Barranquitas who lived with us for six or seven weeks before going on to live with relatives in Falmouth, Massachusetts and Philadelphia. The second semester saw further attempts at completing incompletes, the delivering of my paper "Urban Legibility and Aerial Photography" at the Harvard Conference for the Use of Aerial Photographs in Anthropological Fieldwork, and the successful mounting of my thesis proposal. This involves the investigation of permanent humid tropical lowland agriculture along the Usamacinta River. Field work on this thesis will be carried out this summer in Mexico with Jim Blaut and my wife. Next year will see us both teaching English at Inter American Regional College in Barranquitas.

ALUMNI NEWS *by themselves*

LEWIS ALEXANDER (MA 1948; PhD 1949) is Professor of Geography, and Executive Director of the Law of the Sea Institute of the University of Rhode Island. In 1967-68 he served as Deputy Director of the President's Commission on Marine Science, Engineering and Resources.

AGNES M. ALLEN (MA 1934; PhD 1937) is Professor of Geography at Northern Arizona University where she is also Dean Emeritus, College of Arts and Science. She writes, "I was a voting delegate from A.A.U.W. to the Conference of the International Federation of University Women to Karlsruhe Germany last August. While I was in West Germany I spent four days with Agnelika Sievers who teaches in a teachers training school at Vechta. Angelika was my field partner in the 1933 field session. We had a delightful time recalling our Clark classmates and our good fellowship together."

MARY ARENDES (1954-1955) is the Junior High School Social Studies Department Chairman in Fargo, North Dakota, as well as a teacher of seventh grade geography. She participated in the first Media Institute for Geography Teachers at the N.C.G.E. meetings in Kansas City.

ROBERT H. ARNOLD (MA 1964) is Assistant Professor of Geography at Illinois State University and Coordinator and Administrator

of Earth Science Program. He attended West Lakes Meetings of AAG in Madison, Wisconsin, in October, 1968 with his wife, Lynn, and submitted the first draft of his dissertation to Clark University in early November, 1968. He visited Ohio University at Thanksgiving to see Bob Gardula and his wife, Marietta. He will travel to Puerto Rico at Christmas with his wife to visit Farouk M.M. El Gammal, and Pedro Parrila.

SIMON BAKER (PhD 1965) writes "glad to hear from you as I have not received The Monadnock in the last three years. I have much news since then. In August 1968 I left my position as a geographer in the Economic Research Service of the United States Department of Agriculture to join the Geography Department at Florida Atlantic University in Boca Raton, as an Associate Professor. Since obtaining my degree in 1965 I have been busy as follows: "The Utility of Tropical Regional Studies", Professional Geographer Vol. XVIII, January 1966; with T.J. McCleneghan, An Arizona Economic and Historic Atlas, University of Arizona, September 1966, Second Printing, December 1966; "Einführung Und Verbreitung Des Rindes In Den Vereinigten Staaten Von Amerika", Zeitschrift Fur Agrargeschichte Und Agrarsoziologie Jahrgang 15, Oktober 1967; "Tea Production In Ceylon", The Journal of Geography Vol. LXVII, January 1968; "Remote Sensing: Present Status and Future Agricultural Use", Professional

Geographer Vol. XX, May 1968; An Evaluation of Crop and Land Use Data in a World Sample of Countries Economic Research Service, U.S. Department of Agriculture, November 1968; "Shifting Agriculture in Ceylon", due to be published in The Journal of Geography in December 1968. Am conducting research in remote sensing at the present time. Looking forward to the receipt of The Monadnock on a regular basis.

NICHOLAS BARISS (PhD 1967) is Associate Professor of Geography at the University of Nebraska at Omaha. He is conducting research on the process of gully formation in the loesses of Nebraska. His publication on loess morphology appeared in "Loess and Related Eolian Deposits of the World", Vol. 12, Proceedings of VIIth INQUA Congress, Part 1, Chapter 6.

KENNETH Q. BATTERSBY (BA 1932; MA 1941) is retired, but self-employed. He has several studies in preparation. Among them are: "Some Aspects of Political and Economic Geography in Certain Areas of Canada and Australia", "Early Scotch Settlements in Maritime Provinces of Canada", "Trends in Economic Geography of Prince Edward Island, Canada", and "Travel and field work in Eastern Canada".

RUTH E. BAUGH (MA 1926; PhD 1929) is Professor Emeritus at the University of California at Los Angeles. Professor Baugh traveled to Washington, D.C. and visited in Virginia in the Autumn of '67; visited the midwest in Spring of '68 - Illinois, Indiana and Kentucky; Fall of '68 trips through Arizona and New Mexico.

PAUL R. BEAUDET (MA 1961; PhD 1968) is Professor of Geography, State University College at Buffalo, New York. He is currently engaged in teaching urban geography, and doing research in urban geography. He has a grant from the State University of New York Foundation for his research.

GEORGE BEISHLAG, PhD (MA 1937) is Professor of Geography at Towson State College in Baltimore. He conducted a Baltimore Harbor field trip for the AAG convention in Washington, D.C. in August, 1968 and then took off for Moose Factory on the tip of James Bay in Ontario, a place name he says he had seen on maps all his life.

CARL G. BERG (BA 1936; MA 1942) is the Principal of Burncoat Senior High School, in Worcester, Mass.

JOCELYN DONALDSON BERNAT (1942-43) is a teacher in the Adult Basic Education program in Fairfax County, Virginia.

ROBERT E. BLACK (MA 1967) is a Graduate Assistant completing requirements toward a PhD at Clark. He writes, "Research interests in general field of 'urban systems and economic development'. Plans are for dissertation research in this area to be carried out in Southeast Asia during 1969. Since leaving Clark in 1960, Barbara and Bob have seen the birth of two children (theirs) and done considerable travel

throughout the Far East and U.S.A. as members of the Defense Department. As permanent civilians, the Blacks are headed for University careers, preferably in the warmer climes".

BOESCH HANS (Dr. Sc.h.c. 1967) is Director of Geographisches Institut and ordinary Professor of Geography at Zurich University, in Switzerland. He reports, "I have just resigned from my position as Secretary-General of the IGU (December 1968) and I am sincerely hoping that this will give me more time for research. Part of this will be in connection with the World Land Use Survey, of which I am Chairman. In 1968 I have published, besides a number of scientific articles, and atlas on global economic geography (Kummerly & Frey, Bern). In order to keep my geography well balanced, several weeks were spent in Nepal for geomorphological work in the Kathmandu Valley (Spring 1968), resulting in an article published late in the year in Geographica Helvetica."

LEONARD W. BOWDEN (PhD 1965) is Associate Professor of Geography at the University of California, Riverside. In addition to teaching, he is principal investigator of the NASA/USGS funded "Remote Sensing of Southern California and related environments" project.

DAVID DALLIN BRODEUR (MS 1960; PhD 1963) is Program Development Officer, New Communities Division, with the Department of Housing and Urban Development in Washington, D.C. David visited the new towns of England and Scotland, in November, 1967; visited Israel, particularly in connection with research on the cryptograms of the Book of Daniel (O.T.) for which he has one manuscript under consideration and calls for a book length manuscript from two publishers of Biblical exegesis, November, 1968; and is still single.

WOUTER VAN DE BUNT (1951-52) is Assistant Vice-President for Passenger Service Planning with Continental Airlines at International Airport in Los Angeles. He writes, "Gave up position as Vice-President and General Manager of Lebanese International Airlines, which held during 1966 and 1967, as a result of continuing warlike situation in Middle East and relocated in California as of January, 1968. Travel frequently as result of airline position. Time for research and publications non-existent. Family consists of six in total".

HARRY H. CALDWELL (BA 1941; PhD 1951) is Professor and Chairman of Geography at the University of Idaho in Moscow. He spent summer of 1968 with the Earth Science curriculum Project as Idaho College Consultant and then he attended the Remote Sensing Institute at the University of Michigan.

NORMAN CARLS (PhD 1935) is Professor and Chairman of the Department of Geography at Shippensburg State College, Shippensburg, Pennsylvania. Knowing Our Neighbors, a social studies series for intermediate grades, was published in 1968 by Holt, Rinehart and Winston. He is senior author and general editor of the series. His article "Contributions of Geography to General Education" appeared in the Shippensburg State College Review.

THOMAS W. CHAMBERLIN (MA 1937; PhD 1946) is Academic Dean and Professor of Geography at the University of Minnesota at Duluth. He has done nothing significant during this past year.

JEN HU CHANG (PhD 1954) is Professor of Geography at the University of Hawaii. Last year saw the publication of his Climate and Agriculture by the Aldine Co.

MARGARET S. CHEW (PhD 1960) is Professor of Geography at Wisconsin State University in La Crosse. She conducted a "Round the World" Geography Field Trip during the summer of 1968, and took part in the December 19, 1968 - January 6, 1969 Central Sahara Geographic Expedition. She is also working on a book on the geography of Wisconsin.

EUGENE VAN CLEEF (PhD 1926) is Professor Emeritus, at Ohio State University. He expects several publications in 1969, among them a paperback entitled Cities in Action. 1968 saw his "Mature Columbus and World Trade" published in The Columbus Business Forum (Vol. 4, #5, June, pp. 5-6).

CAROLYN STEIDLE (MRS. DAVID) CLODFELTER (MA 1961) was a Latin teacher in the Cincinnati Public Schools until Christmas when she became a housewife. She has a son David now three years old.

CATHERINE ELIZABETH COX (MA 1942) is Assistant Professor of Geography at Fitchburg State College in Massachusetts. She attended the IGU meetings in New Delhi and participated in an Around the World Group Excursion. She also made field trips to Kashmir and Nepal.

CLARK N. CRAIN (PhD 1951) is Professor of Geography of Regional Development at the University of Denver. He reports publications currently in Mining Engineering, Journal of Irrigation and Drainage concerning the development that he is engaged in in Pakistan. Last year saw him carrying out field research in Southeastern Turkey while acting as Chief Consultant Upper Indus Basin Development Plan. For May and June of this year he predicts more field work in Southeastern Turkey.

HAROLD F. CREVELING (PhD 1951) is Professor of Geography at East Central State College in Ada, Oklahoma. He writes "I retired June 1, 1968 from East Stroudsburg State College, Pa. after fourteen years of service and have been granted the title - "Professor Emeritus". In the summer of 1968 I was a visiting Professor at the University of Oklahoma teaching regional geography. Now I'm a member of the departmental staff at East Central State College in Ada. We have plans for extensive travel in the Western states this coming summer."

FLOYD F. CUNNINGHAM (MA 1928; PhD 1930) is Professor Emeritus of Geography at Southern Illinois University since September 1966, and is now Distinguished Visiting Professor at Western Kentucky University. Incidentally, he is the first and only person to ever hold the title of

Distinguished Visiting Professor at Western. He writes, "The seventh book which I have authored or co-authored came from the press of Dodd, Mead, & Co., New York City in June 1967. It is entitled 1001 Questions Answered About Water Resources. I have a research grant from the University to pursue work on the topic Water Management Problems in the Karst Regions of Kentucky. Mrs. Cunningham takes care of our 300 acre farm and I commute back and forth to Carbondale about once a month."

VEVA KATHERN DEAN (MA 1939; PhD 1944) retired June 30, 1968 from a position as Professor of Geography, State College at Fitchburg, Fitchburg, Mass. She writes, "Am now living in our 1690 farmhouse; known locally as the Beetle Farm, on the Island of Martha's Vineyard. Hope to return to serious writing (topic not to be announced) now that problems of moving from Fitchburg are about completed. Am proud to have a F.S.C. geography major at Clark this year - Sue Simonds."

AUBREY DIEM (MA 1956) is Professor of Geography at University of Waterloo. He writes, "I am presently spending a sabbatical year in Switzerland where I am writing a Geography of Western Europe. My latest publication is "Urban Development Problems of the Ports of Rotterdam and Amsterdam", Cahiers de Géographie de Québec, onzième année, numéro 22, avril 1967".

SIGISMOND DIETRICH (PhD 1931) is Associate Dean of the Faculty and Professor of Geography at Inter-American University of Puerto Rico in San Juan. He was named to his new position this past July.

JOHN R. DUHLE (PhD 1955) is Assistant Dean and Professor of Geography and Physical Sciences at the University of Florida. He reports, "I have authored four chapters and prepared some two hundred illustrations for the Physical Sciences text used here by one thousand freshmen. In addition I continue in charge of academic advisement for seven thousand freshmen and sophomores as Assistant Dean in the University College".

SIDNEY EKBLAW (PhD 1934) is Professor of Geography and Geology at the University of Missouri in Kansas City. In 1967 The McCutchan Publishing Company of Berkeley brought out his "Exercises in Earth Science", while the October 1968 Journal of Geography published his "Teaching Geography Teachers" as an editorial. Also in October 1968 the Missouri State Department of Education published a syllabus or guide for World Geography at the 10th grade level. This was the result of two years work on a statewide committee of geography teachers. In November of last year Dr. Ekblaw was Chairman of Local Arrangements for the Convention of National Council for Geographic Education. This academic year saw his participation in an In-Service Institute for Earth Science Teachers at UMKC funded by the National Science Foundation.

RICHARD ELLEFSEN (MA 1958) is Associate Professor of Geography at San Jose State College in California. He completed his PhD

at the University of California, Berkeley in June 1968. The title of his dissertation was The Milk Supply of Major Indian Cities. His current research interest is urban studies in the Santa Clara Valley. He spent summer of 1967 in India.

BART J. EPSTEIN (PhD 1956) is the Manager, Retail Real Estate for the B. F. Boordrich Co. He is still teaching Urban and Marketing Geography at Kent State University on a part time basis.

RICHARD B. ERICKSON (BA 1954; MA 1959) is Executive Director of the Southeastern Connecticut Regional Planning Agency. His wife Marcia (MA 1959) is employed by Richard as a housewife.

WILMA BELDEN FAIRCHILD (MA 1937) is the Editor, Geographical Review of the American Geographical Society of New York. "In November I was awarded the Samuel Finley Breese Morse Gold Medal of the American Geographical Society. I'm not sure whether the award was for having survived twenty years of the Review or a bribe to survive another ten." Which says it all.

BRADLEY FISK, JR. (AM 1950) is Professor in Geography at Cape Cod Community College in Hyannis, Mass. A child, Ian, was born in October of 1968, Mr. Fisk's first. His wife, Helga, died in January of last year. He remarried in July, Libby DeWolf. Recent travel included Southern England. Plans include Grenada, Spain.

ROY J. FLETCHER (PhD 1968) is Associate Professor at the University of Lethbridge in Alberta. He moved to western Canada and a new position in a new university within sight of the Rocky Mountains. His present research is concerned with Arctic Climatology. His wife, Mako, had their second child in February of this year.

CHARLES N. FORWARD (PhD 1958) is Associate Professor in the Department of Geography at the University of Victoria, Canada. He writes, "I spent the last academic year on sabbatical leave in Australia where I studied waterfront land use and commodity trade of leading Australian ports under a research grant from the Canada Council".

EDWIN J. FOSCUE (PhD 1931) is Professor Emeritus of Geography at Southern Methodist University in Dallas, Texas. He reports, "Since my retirement from Southern Methodist University in 1965, Mrs. Foscue and I have traveled extensively. We flew to Australia in March, 1968 and spent most of that month in Tasmania and southeastern Australia, including an intensive survey of the Snowy Mountain Scheme. In April we returned to San Francisco by ship visiting New Caledonia, Fiji, and American Samoa. Last August we flew to Munich, Germany where we rented an automobile and spent the next five weeks driving through southern Germany, western Austria, and Switzerland, studying the small villages and hamlets in the Alps."

J. KEITH FRASER (PhD 1964) is the Executive Secretary of the National Advisory Committee On Geographical Research of the Department of Energy Mines and Resources. He wrote on the toponymy of the Hudson Bay Region in Science, History and Hudson Bay which was published by the Queen's Printer, Ottawa last year. He was in New Delhi for the IGU Congress as the Secretary of the Canadian National Committee.

ROLAND FUCHS (MA 1957; PhD 1959) is Professor of Geography and Chairman, Department of Geography at the University of Hawaii. He spent the summer of 1968 at Ohio State University as Research Associate under a NSF project; and attended the IGU New Delhi meetings, in December of 1968.

WOODFORD M. GARRIGUS (MA 1955; PhD 1958) is Professor of Geography at Ashland College. He writes "Am working on a major program in Geography for Ashland College. There are many problems here: resistance to new courses and new major fields on the part of the College; the difficulty of deciding what courses should be included, or even what the introductory course should be; where to find good students to major; where to find space and money; etc. Too early to say what results can be expected. Attended the NDEA Institute for trainers of teachers at the University of Florida last summer. Jim Anderson and Bob Hoke ran a very good session which I can recommend to anyone, should they ever run another one."

JOHN L. GEORGE (MA 1956) is Associate Professor in the Department of Geography at Salem State College in Salem, Massachusetts. In May 1968 he received the PhD degree from the Boston University in Geography. Following that he worked as a Research Associate for the Smithsonian Institution on a project dealing in the development of the textile industry in Fall River, Mass., and as a planning consultant to the city of Lynn (their "downtown project"). This fall he read a paper based on his dissertation to the New England - St. Lawrence Valley Geographical Society Meetings. The George's have three children (9, 7, and 1-1/2).

JON A. GLASGOW (MA 1959) is Assistant Professor of Geography at State University College in New Paltz, New York.

PETER G. GOHEEN (MA 1964) is Assistant Professor in the Department of Geography at the University of Chicago. He returned to Chicago after a year of teaching in the Geography Department at University of British Columbia, and is completing the dissertation.

LOREN GOULD (BA 1953; MA 1959) is Assistant Dean of Men at Worcester State College. He reports, "Drove down to Miami, Okla. to get my mother out of a nursing home in late May. Observed flood conditions on the Ohio River below Cincinnati on the way down. Took sidetrip thru the Ozarks and visited areas of interest along the way. Went to Bedford, Ind. oolitic limestone quarry, stopped at Olney, Ill. where an hour was spent in the rain trying

to coax out at least one albino squirrel--no luck. Visited lead and zinc mines while in Miami, came home by thruways so was unable to make any side excursions. Spent actual vacation in August in Berkshires climbing Mt. Everett and visiting bird sanctuaries. This will be my first year without any teaching. We added Bob Thompson (Clark AM) and Bob Lingner (Clark AB) to the staff and with Bob Perry already here as dept. head there was obviously no room for somebody named Loren so I am strictly administrative now. This is a full-time job and with todays students I sometimes think it's more than a full-time job. I enjoy the variety and the challenge of this job and when I think back to last year's class of 131 students in one class I don't regret the switch at all."

ANDREAS GROTEWOLD (MA 1951) is Professor of Geography at the University of Missouri. He attended the International Geographical Congress in India. He will be a guest professor at the John F. Kennedy Institute for American Studies, Free University of Berlin, for the semester from 15 April to 15 July, 1969. Professor Grotewold published "Culture and Economic Development: South Africa versus Peru", Journal of Geography, Vol. 67 (November 1968), pp. 484-489, with Josef Batek.

SISTER MARY URSULA HAUKE, R.S.M. (PhD 1958) is the President of Mount Aloysius Junior College in Cresson, Pennsylvania. She attended conferences in Denver, Colorado, Portland, Maine, Hershey and Williamsport, Pennsylvania during the past year. She published a workbook to accompany Geography Gateways, Book 4 (Allyn and Bacon) and was appointed to Board of Directors for Pennsylvania Council of Geographic Education.

CHARLES HARDY (1963-1964) is a teacher of Geography in the Public School System of Millis, Massachusetts.

ALAN HARRIS (1951-52) is Reader in Geography at the University in Hull, Yorkshire, England. He was appointed Reader in October 1968; previously he had been Senior Lecturer (at Hull). He published papers on aspects of the historical geography of northern England during the past year.

DOROTHEA BURTON HAWLEY (MA 1947; PhD 1949) is an Intelligence Research Specialist (Supervisory) with the Defense Intelligence Agency in Washington, D.C.

RICHARD D. HECOCK (PhD 1966) is Associate Professor in the Department of Geography at Eastern Michigan University. He is continuing his research into Patterns of Urban Consumer Expenditures with John F. Rooney, Jr., and the relationship of water quality and recreation benefits.

DONALD HIGGINS (1962-1964) is a teacher of the Spanish Language at Webster Academy in Webster, Mass. He returned from the Peace Corps (Venezuela-Urban Community Development II) and has been teaching Spanish at Webster for the past two years. He spent last summer in the Soviet Union

studying the Russian Language for five weeks at the University of Leningrad and five weeks traveling through the Soviet Union. He hopes to return next summer.

CARL F. HOLZHAUER (MA 1928) is a teacher at Southeastern High in Detroit. He writes, "After years of summer travel through the west and northwest we broke away this summer and took a short cut through Canada to visit New England. Unfortunately it was on Sunday that we were in Worcester so that our visit of the campus was a brief one. Changes, changes! Really, if it had not changed in forty years we should have been disappointed. We are on the retirement homestretch so that we hope to do a bit more traveling. We have two pleasant encounters to report this year: one with President Jackson in our home, and one with Miss Shipman in hers."

G. H. HONES (MA 1953) is a Lecturer in Education, in the School of Education at Bath University of Technology. This involves training Geography graduates in their post-graduate Education Training Year. His research is centered on "The Geography of Education". He had a summer visit from Mildred Berman who stayed a while en route to Netherlands, Israel and New Delhi for the IGU. He also recently met Mr. Alan Baddeley who had been to Clark to work with the experienced teacher Fellows. Mr. Baddeley is Her Majesty's Inspector of Schools in Bristol.

GEORGE M. HOWE (PhD 1956) is Visiting Professor of Geography at Clark University. He writes, "I terminated my 13 year affiliation with Travelers Research Center in July 1968. My final project at Travelers was a new analysis of the character and distribution of the dry climates of the world, published in December 1968 by the sponsor, U.S. Army Natick Laboratories."

JOSEPH B. HOYT (PhD 1954) is Professor of Geography and Chairman - Division of The Social Sciences - Southern Connecticut State College. "Man and The Earth, my professional 'child' was reborn - in a second edition last year and is doing well - another child is in the research stage - a study of Man's modification of his environment".

BERT HUDGINS (PhD 1930) writes us, "Eighty years of age. Still drive my car. Have six grandchildren who live in Detroit. See them often and enjoy them. Bess (Mrs. H.) well and we are enjoying ourselves."

FREDERICK HUNG (Post-doctoral Scholar 1951-52) is Professor of Geography at the University of Guelph in Ontario. He lectured and taught at the School of Geography, University of Oxford for the Michaelmas Term, 1968. He attended the twenty-first International Geographical Congress, New Delhi, India, and presented a paper to the IGU Humid Tropics Commission on "Recent Trends in Plantation and Small Holding Tea Cultivation in Some Typical Areas" on December 2, 1968. Dr. Hung also visited Assam and Darjeeling in India and completed his second tour around the world following the Congress.

ESTHER KINCH HUNTER (MA 1940) is both homemaker and crew for her husband. As she writes, "We are spending the academic year in the Santa Clara Valley. My husband Lloyd is using his sabbatical leave from the University of Rochester to consult for I.B.M. at San Jose. The hobby of soaring seems to dominate our lives. My husband won a day's event in the 1968 National Soaring Championship Meet in Elmira, piloting a Swiss Diamant. I crew."

GILBERT J. HUNTER (MA 1958, a.b.d. 1964) is an appliance deliveryman for the Saratoga Corporation. He writes, "1968 was a crazy year. I courted and married Joanne Johnson, the best thing I've done in many years, left the knowledge industry and made a new career in water conditioning equipment servicing. A paper entitled "Syllabi, Significance and Theory in Geography" was read to the Geography section of the Pennsylvania Academy of Science meeting at Franklin and Marshall in April. I'm planted in what the Planning Commission calls the "wilderness area of Berk's County," where I seldom see geographers except at meetings of the Delaware Valley Geographers or the P.A.S."

PRESTON E. JAMES (PhD 1923) is Maxwell Professor of Geography at Syracuse University. He attended the IGU meetings in New Delhi as an official delegate. He is on leave for 1968-69. In addition to a trip around the world he also traveled extensively in Latin America. In March of this year the fourth edition of *Latin America* was published by the Odyssey Press. Dr. James retired as Chairman of the Department of Geography last July.

ALBERT H. JACKMAN (PhD 1953) is The Head of the Department of Geography at Western Michigan University. Last year he was working on an historical geographic study of the Alaskan-Canadian boundary.

JOHN L. JENNESS (PhD 1951) is the Senior Economist, Policy and Planning Branch, of the Department Energy, Mines and Resources, in Canada. He spent the summer of 1968 in Cape Breton Island on special assignment as consultant to the Cape Breton Development Corporation and published a field trip and two conference reports during the year. In September, Christine joined his family as adoptive sister for Rob, Dave and Bill.

JESSIE THORNTON JESSEMAN (MA 1941) is, besides being a homemaker, an active member of the New Hampshire Clark Alumni Association. She took a cruise to Nassau and Freeport and thinks that Bermuda is better.

LANE J. JOHNSON (MA 1954; PhD 1960) is Associate Professor and Chairman of the Department of Geography at Wayne State University. He published "Industry Combinations in the Central United States: An Application of Weaver's Method", (with Waltraud E. Teufner), *The Professional Geographer*, Vol. 20, No. 5, September 1968.

JAMES P. JONES (MA 1950) is Chairman of the Department of Geography and Geology at Boston State College. Last year (1967) he was host and program script writer for a

WHDH-TV classroom V series, "The Metropolitan Environment". Manual for Physical Geography, which he co-authored was published by Brown Co. in 1968. For the Municipal Police Science Institute he authored "A Community Service Officer Program" as well as working out a Boston Police Baccalaureate Program. He also served on a variety of committees in all levels of government concerning himself with education in general and police problems in particular.

STEPHEN B. JONES writes that, while he studied at Clark one summer long ago, he is not a Clark alumnus. Since he nevertheless notes that he enjoys reading the *Monadnock*, we thought that we would keep him with us. He is Professor of Geography at Yale University.

COEN KIEWIET DE JONGE (BA 1947; MA 1949; PhD 1951) is an Associate Professor of Geography at San Diego State College.

WILLIAM F. KANE, JR. (BA 1951; MA 1954) is General Manager of the Worcester Area Chamber of Commerce. He published an article "Industrial Development; Opportunities, Requirements and Available Academic Training", in January 1968 issue of *American Industrial Development Council Journal*, and completed a three year summer course in economic development at University of Oklahoma. He has spent part of last four summers touring National Parks with his family.

FRANK and MARILYN KELLAND (MA's 1954) have had a learning tape, co-authored by the two of them, for adult education, published by Universal Learning Corporation of New York City. The tape is entitled, "The Earth - It's Origins and Development." They also co-authored the second edition of "Exercises in Physical Geography" which was published by William C. Brown Book Company. Frank is Assistant Professor of Geography at Montclair State College while Marilyn is Associate Professor of Geography at Newark State College.

LOIS R. KELLER (MA 1929) is a retired geography teacher. She writes that she took a New England Color Tour this fall which reminded her of her Clark Field Trips. "However," she continues, "I did not ascend any look-out towers or descend ladders in granite quarries this trip!"

EDWARD S. KERSCH (MA 1958) is the Principal City Planner for Detroit City Planning Commission. He is working on Detroit's Model Cities Program and on a revision of the comprehensive, long-range Master Plan; not to mention the fact that he has three lovely children.

HARRY B. KIRCHER (PhD 1961) is an Associate Professor at Southern Illinois University, in Edwardsville. He is also the President of the Illinois Geographical Society as well as writing a series of booklets for elementary grades dealing with conservation. He plans on conducting class of European Travel Study, summer 1969.

MISS ESTHER L. KISTLER (MA 1938) is a retired teacher. She spent February and March in Aloha Trailer Park in Sarasota, Florida, traveling down and back in her own car.

CLARENCE E. KOEPPE (MA 1927; PhD 1929) spent the year completing a manuscript *Falling Chips*, sketches concerning the lives of certain individuals at the turn of the century.

MARY L. MACDONALD KRAMER (MRS. FRED S.) (MA 1941) is currently enrolled in graduate school in the Braniff MBA Program at the University of Dallas at Irving, Texas. She writes, "After lively years of business experience in New York City plus five years' public school teaching in Texas, I'm updating and "retooling", you might say, with certain special goals in mind."

LESLIE C. KREBS (1924) spent the six winters following retirement from Shippensburg State College in the Netherlands Antilles on the island of Aruba.

PIERCE C. LALOR (MA 1950) is a teacher of Earth Science at Wahconah Regional High School in Dalton, Mass.

JAMES STEWART LEE (1940-1941) is an Intelligence Research Specialist and Deputy Branch Chief with The Targets Office of the Defense Intelligence Agency of the Department of Defense, in Washington, D.C. He served on the Program Management Staff of the 64th Annual Meetings of the American Association of Geographers at the Shoreham Hotel in Washington in August 1968.

LOUIS E. LEIPOLD (MA 1946) is Chief, Editorial Branch, Scientific Information and Documentation Division, Environmental Science Services Administration in the Department of Commerce. He reports, "This year I shall complete the three-volume series put out by ESSA on the Prince William Sound, Alaska, Earthquake of 1964. I have edited all volumes but have the honor of being listed as editor-in-chief of Vol. II B-C (Seismology and Marine Geology) and Vol. III (Geodesy and Photogrammetry). All were published by the Government Printing Office. The first two volumes (I & IIA) should be in the Clark Library."

MINNIE E. LEMAIRE (MA 1932; PhD 1935) is chairman of the Department of Geology and Geography at Mount Holyoke College. Last year she spent her sabbatical leave as a faculty in residence at Clark University - which meant that she had an office and was able to attend lectures. In January she left for a three month trip into the Caribbean region. She also attended the National Council for Geographic Education meetings in Kansas City, where she found the Ozark field trip wet and chilly.

ROBERT E. LINGNER (BA 1954) is Assistant Professor of Geography at Worcester State College. He moved back to Worcester from Pennsylvania this summer, starting the above position in September 1968. He is also teaching an Introductory Geology course at Clark this year. His daughter, born on 13 October of last year, broke the string of

four sons completing (?) his family.

MIRIAM AND RICHARD LOCKHART (MA 1957) Miriam is a teacher of English to Spanish-speaking adults (part-time) in the Boston School System while Richard is the Project Director of the South Cove Urban Renewal Project of the Boston Redevelopment Authority. Miriam has been involved in setting up the English language course she has been teaching and in helping to expand to higher grades the nursery school (Cambridge Montessori School) their younger daughter attends with some emphasis on geography in each case. Richard has been in the midst of redevelopment in the South Cove part of Boston and has been involved in the establishment of a new elementary school in Cambridge (Fayerweather Street School) modeled in part after the system commonly followed in Leicestershire, England, and in part after Montessori - ungraded, pupils participate in teaching, programs geared to each pupil's interests and potential rather than to group standards. Our older daughters is enrolled at Fayerweather.

RICHARD F. LOGAN (BA 1936; MA 1937) is Professor of Geography at University of California at Los Angeles. He writes, "Left San Francisco in June, 1968, by freighter. Spent one month in Japan, and then by Dutch freighter through the Philippines and Sunda Strait to Durban. Four months of field work in Southwest Africa, in preparation for two more regional monographs on that country. In press: 'Bibliography of Southwest Africa'."

ROBERT and ALETA LOOKER (MA 1960; MA 1960). Robert Looker is deputy director of the City Planning Department of Hartford, Connecticut. Aleta is teaching part-time at Quinnipiac College this first semester, but plans to stay home with the family after January 20. They both enjoyed seeing some old CUGS friends at the New England - St. Lawrence Valley regional meeting in Bridgewater, Mass., October 18-19, 1968.

ARTHUR C. LORD (MA 1959) is Associate Professor of Geography at Millersville State College in Millersville, Pennsylvania. He is the President of the Faculty Association for 1968-69.

JOHN C. LOWE (PhD 1970?) is Assistant Professor of Geography at the George Washington University in Washington, D.C. Last year he oversaw the production of an Economic Atlas for the Upper Great Lakes Regional Commission. Besides camping through the Maritimes in August, he reports his first daughter, born on the second day of 1968.

NATALIE E. NASON (MA 1948) is Director of Education for the Saigon Education Center in Vietnam. She writes, "During 1968 I transferred from 7th Infantry Division in Korea to Long Binh and then Saigon, Vietnam. Visited Okinawa, Taiwan, Japan, then the island of Luzon during the year. Had a month's leave in New England in May and stopped for a week in Hawaii. On my return to Saigon a rocket struck my apartment building and exploded two stories above my head. While in the states I visited Dr. Dorothea Burton in Washington and Rep. Miller in Calif."

HERMAN L. NELSON (PhD 1954) is Professor of Geography at Wisconsin State University in La Crosse.

BOBBIE GUPTON NEWMAN (MA 1965) notes that of June 1968 she is Mrs. Jeffrey W. Neff. Meanwhile she is also working toward her PhD in geography at the University of Tennessee in Knoxville on an assistantship.

JAMES E. MCCORMICK (MA 1968) is Senior Planner of the Department of Planning and Inspection in Fresno, California. The above title is a recent promotion. During the summer he enjoyed an airline tour of the northern U.S. studying landuse pattern variation and airport development. Most recent assignment: develop methodology and organizational structure to coordinate capital improvement programs of the multi-level governmental structure of the Fresno-Clovis Metropolitan Area (300,000 plus population) to achieve an intermeshing of physical development proposals.

WALLACE E. MCINTYRE (MA 1947; PhD 1951) is an Administrative Assistant with the United States Government. His son, William, is now in first year of medical school, University of Chicago.

MICHAEL G. MENSIOAN (BA 1949) is Professor of Geography at the State College in Boston. His *The Arab World and New Africa*, co-authored with H. Brooks was published October 1968 by W.H. Sadlier.

HARLEY P. MILSTEAD (MA 1926; PhD 1933) is retired from teaching. He taught at Montclair State College in Montclair, New Jersey for thirty-one years. He has a text book on the *History and Geography of New Jersey*, but no recent publications. He has been spending his time traveling around the United States and notes that he has "visited every state of the 48 except North Dakota".

ALBERT R. MITCHELL (MA 1960) is Associate Professor of Geography at Farmington State College in Maine. Last year he published "Analysis of the Zoning Vote: Farmington, Maine 1968" in *The Maine Townsman*, September 1968.

ANDREW S. MORELAND (MA 1951) is the President of Ocean County College.

BENJAMIN MOULTON (BA 1939) is Chairman and Professor of the Department of Geography and Geology at Indiana State University in Terre Haute. Last summer he did field work in Alaska and last fall his department accepted its first PhD students.

W. G. MYATT (PhD 1958) is Professor of Geography at Oregon State University at Corvallis. He writes, "As of July 1, 1968 will be Professor Emeritus as retirement is planned for then. I expect to spend considerable time in travel. During the summer of 1968 travelled across U.S. and Canada by car. Revised chapter on population for 11th edition of *Pacific Northwest Atlas*".

M. W. MYERS (MA 1937; PhD 1948) is Professor of Geography at Mississippi State

University. He was rather busy last summer, having his daughter Beverly married in July, and conducting a tour through Europe. With his youngest daughter having been married in June of 1967, he has completed his "tour of duty as The Father of The Bride."

HOWARD L. OHMAN (BA 1947; MA 1949) is a Geographer (Physical) with the United States Army Natick Laboratories.

RALPH E. OLSON (PhD 1946) is Professor of Geography at University of Oklahoma in Norman, Oklahoma. He writes, "Visiting Fulbright Professor of Geography, Geografisch Instituut, University of Utrecht, Netherlands 1967-68. Accompanied by Mrs. Olson and three children, Karen, Susan, and Gordon. Karen and Susan participated in Experiment in International Living programs during summer of 1967; Karen, a senior at Macalester College, had her junior year at the University of Edinburgh; Susan is a freshman at Pomona College."

DANIEL F. PAWLING (BA 1951) is the Senior Planner for the Tri-State Transportation Commission in New York City. He writes, "Continuing research into land development patterns in 8000 square mile New York Metropolitan Area. The work includes study of interrelationships between land use categories, and land development dynamics and is directed towards preparation of mathematical land development models. Also participating in the creation of Urban Information Systems."

ROBERT F. PERRY, JR. (PhD 1957) is Chairman of the Department of Geography at Massachusetts State College at Worcester. During the summer of 1968 he took a short course in astrogeology at University of Northern Arizona. At the same time he received a National Science Foundation and local college grant to study lunar geography at the U.S.G.S. Astrogeology Center and Lowell Institute in Flagstaff. He also reports increasing numbers of geographers at Worcester.

RAPHAEL PICO (MA 1934; PhD 1938) is Vice Chairman, Board of Directors of Banco Popular de Puerto Rico. He finished his term as Senator at Large 2 January of this year and expects to devote his time in the future to the Banco Popular and to consulting work throughout Latin America. His new book on the geography of Puerto Rico, *Nueva Geografia de Puerto Rico* will be published by the University of Puerto Rico Press.

THEODORE S. PIKORA (MA 1964) is with the Department of Geography at Salem State College in Salem, Mass. He did field work in East Asia as part of an Asian Studies program conducted by Dr. Ying-Cheng Kiang of Northeastern Illinois State in Chicago during the summer of 1968.

JAMES BRADFORD POWERS (1965) is an Instructor at Dean Junior College in Franklin, Massachusetts. Last June he completed graduate study in regional planning at the University of Edinburgh in Scotland. He has completed his thesis and expects the degree this July. He feels certain that he will return for the Doctorate

to Edinburgh in 1971 with his wife.

RICHARD E. PRESTON (PhD 1964) is Professor in the Department of Geography at San Fernando Valley State College in Northridge, California. He was promoted to Full Professor in September 1968. An article with D.W. Griffin, "Land Use in the Central Commercial Area", appeared in September, 1968 *Journal of Geography*, and chapter, "Land Use and Zoning in the San Fernando Valley" will appear in Vol. II of the *San Fernando Valley Reference Book* early in 1969. He is continuing his work on urban development in the Pacific Northwest. Spring semester and summer session, 1969, will be spent teaching urban geography and introductory economics, as a visiting professor in the Department of Geography at the University of Hawaii. They are expecting a third child in April.

GEORGE PRIDDLE (MA 1964) is Assistant Professor of Geography at Waterloo Lutheran University. He is still working on his dissertation and has introduced a program of courses in Business Geography. He is chairing an active Geographical InterUniversity Resource Management Seminar.

MERLE C. PRUNTY, JR. (PhD 1944) is Professor and Head of the Department of Geography at the University of Georgia in Athens. He writes, "Currently engaged in research in Geographical Aspects of Fire Phenomena in Tropical Grasslands. A four or five year project, funded via U.S. Dept. of Interior and NASA, designed to assess the origins, distributions, seasonality, terrain/moisture/vegetative relationships of tropical savanna grassland fires, via remote sensors and satellites, to predict how these fires may influence population immigration and settlement on the Latin American savannas. Presently in second year, using sites on outer coastal plains in the South." His latest publication is "The Rise of the Pine Plywood Industry in the South", *The Southeastern Geographer*, VIII, 1968, pp. 11-23 - (with Carl F. Ojala).

ETHA M. PRUSER (MA 1954) is Professor and Head of Department of Geography at East Stroudsburg State College in Pennsylvania. She observes, "I will participate in a study tour to the Central Sahara - visiting the Haggar, Tassili, and M'Zab in December and January. July will find me in South America - touring the Andes, Pampas, and Campos."

PAUL L. RAWSON (1950-51) is Assistant Professor of Geography at State College in Monroe, Northeastern Louisiana. He spent the year building a child-proof new home on the bayou for the four children.

YVONNE REBEYROL (1952-53) is a journalist with the newspaper "Le Monde" in Paris. She visited, to report in "Le Monde", the French Antarctic base of Dumont d'Urville in Adelie Land in December of 1968 and also visited on this trip a little part of New Caledonia. Earlier, in September she traveled to Egypt to report about the move made of the Abu Simbel temples. Her main journalistic interests lie in scientific

areas, such as oceanography, geophysics (especially continental drift) and human paleontology.

AGNES C. REHNER (MA 1940) is with St. Ambrose College. She spent three weeks in Portugal, Spain, and Morocco.

EDWARD RISLEY (BA 1946) is Foreign Affairs Officer, Science and Technology Bureau of the U.S. Arms Control and Disarmament Agency (ACDA). He writes, "Recently returned to ACDA after two years leave of absence during which I served as Executive Secretary to the Committee on Remote Sensing of Environment of the National Research Council. Member of Editorial Board of the *Journal of Remote Sensing of Environment*; Gave paper on "Remote Sensing Activities of the National Research Council" at the Fifth Symposium on Remote Sensing of Environment, University of Michigan, in March 1968".

WALTER W. RISTOW (PhD 1937) is the Chief, Geography and Map Division, Library of Congress, Washington, D.C.

INA CULLOM ROBERTSON (MA 1924) was retired in 1958 after forty-seven years spent in the classroom. Thirty-seven of those years was spent as head of the Department of Geography in Valley City, N.Dakota. She reports, "Since retirement have few professional activities to report. My mobility was curtailed as a result of a car accident. Travel is out of the question. I live in Florida with a sister and enjoy the sunshine of the West Coast. Port Charlotte is a city of some 14,000, located on Charlotte Harbor. A pleasant place to live".

J. LEWIS ROBINSON (PhD 1946) is a Professor in the Department of Geography at the University of British Columbia in Vancouver. Dr. Robinson resigned in July, 1968, as Head of the Geography Department of the University of British Columbia after twenty-two years of service to the University. He was the first and only Head of the Department, which now ranks as the largest undergraduate geography department in Canada and the third largest graduate department. Dr. Robinson remains with the Department as Professor of Geography, and expects to spend more time on his writing, and once more to find more time for undergraduate students.

VIRGINIA M. ROBINSON (MA 1934) is with the Department of Geography at Shippensburg State College in Shippensburg, Pennsylvania. Her summer was full with an NDEA Institute for Advanced Geographic Study at the University of Florida, Gainesville, as well as travel in Finland and the USSR. She is now engaged in research on the use of the computer as a learning aid in the field of geography.

JUDITH RIDOER (BA 1962) is a housewife and mother. She reports, "Our third child, Daniel Robert, was born June 26. He has a sister, Nancy Katherine, who will be three in January, and a brother, David Brian, who was four in September. Consequently, my current academic pursuits do not extend

beyond teaching the children and reading whatever I can when they are all sleeping!"

JOHN KERR ROSE (1931-32) is Senior Specialist in Natural Resources and Conservation, Legislative Reference Service, with the Library of Congress, in Washington, D.C. He attended the International Geographical Congress in India.

EDWARD D. RUSSELL (BA 1921; MA 1922) reports nothing new this year.

RONALD R. ST. ONGE (study 1955-56) is Chairman of the Foreign Language Department in Smithfield High School in Smithfield, Rhode Island, and writes that he brings as much geography as possible into his language classes. Last year saw him studying and traveling in Europe and moving into a new house in September. He was made treasurer of the newly formed Rhode Island Foreign Language Association.

RICHARD D. SANDS (PhD 1960) is a Geographer with the U.S. Army Natick Labs in Natick, Mass.

I MADE SANDY (MA 1959; PhD 1960) is Director of the Direktorat Land Use with the Department of the Interior of the Republic of Indonesia. He has held the present position since October of 1968. In addition he is a Lt. Col. in the Indonesian Army and the President of the Indonesian Geographical Society. This year he is planning a systematic land use survey of Java. Dr. Sandy has two children - Anik (age 4) and Sari (age 2).

FREDERICK S. SANFORD (Graduate Student 1948-50) is Senior Systems Analyst with Sikorsky Aircraft in Stratford, Conn. He is working toward an M.S. in management at Rensselaer Polytechnic Institute (Hartford Graduate Center).

RICHARD M. SAUNDERS (BA 1924; MA 1925) is Professor of History at the University of Toronto. He is also past President, Canadian Historical Association.

MRS. EMELINE H. SCHEHL (BA 1946; MA 1946) is a teacher at Conard High School in West Hartford, Conn.

JOSEPH R. SCHWENDEMAN, SR. (MA 1927; PhD 1941) is Distinguished Professor of Geography and Co-Director, Geographical Studies and Research Center and Consultant with the Department of Geography at Eastern Kentucky University in Richmond. He is continuing to publish the Directory of College Geography from the Research Center at Eastern Kentucky University.

HARLEY E. SCOTT (MA 1963) is with the Institute of Geography at Chicago State College. He is still working to perfect his "Quantified Landforms Map of European Soviet Union" and has at the printers a book, "Tales of the Muskoka Steamboats" - a kind of popular (he hopes) historical economic geography of a resort area 100 miles north of Toronto. He notes that, "Travel by train better for slides. Went last summer to San Francisco-Seattle-

Chicago - got lots of great slides. Xmas train trip to Florida planned (to get pictures of orange groves)".

MARJORIE SHANK (1923) is retired and has been for five years. She says that our questions need no answering for that reason. Come now, Marjorie, you seem too full of good spirits not to have something to say. Try harder next year.

EARL B. SHAW (PhD 1933) is Professor of Geography at Assumption College, in Worcester, Mass. During the past year travel involved a 1968 summer sea voyage of a few weeks in the Mediterranean and a winter journey by ship of almost a month in Latin America (1968-69). Some time, but not much, was spent on research.

JOHN C. SHERMAN (MA 1943) is Professor and Chairman of the Department of Geography at the University of Washington in Seattle. He attended the twenty-first International Cartographic Congress and International Association meetings in New Delhi, India, December 1968, for which he was appointed a delegate by the National Academy of Sciences to the Congress and for which he received a travel grant from the Association of American Geographers. He presented a paper to the International Cartographic Association entitled, "Design of Maps for Partially Seeing Children" co-authored by himself and Dr. Gerald L. Greenberg of the Department of Geography, Sacramento State College, California. Dr. Greenberg carried out the research at the University while pursuing his doctorate in geography. Mrs. Sherman accompanied Dr. Sherman to New Delhi and they traveled "around the world" to return for Christmas.

ANGELIKA SIEVERS (MA 1936) is Professor and Head of the Geography Department at Pädagogische Hochschule in Vechta, West Germany. In 1964 Dr. Sievers published *Ceylon: Society and Environment in the Oriental Tropics* (Steiner, Wiesbaden). From 1964 to 1966 she was part of a UNESCO mission to Nigeria establishing and heading a new geography department at the Advanced Teachers' College in Zaria, Northern Nigeria. During these years she traveled all over tropical Africa. In August, 1967, she attended the first Ceylon Congress in Philadelphia and revisited Clark, "meeting Dr. Van Valkenburg and (on the phone at least) Guy Burnham and three of the 'Worcester girls' of 1933-34: Dr. Minnie Lemaire, Anne Kennedy and Kathleen Kennedy, both married." In August of 1968 she had a reunion with Dr. Agnes Allen of Flagstaff in Vechta, the first in 33 years. This July through September she will be taking her third research trip through Ceylon and other parts of Southeast Asia.

VICTOR W. SIM (MA 1957) is Chairman of the Department of Geography, at the University of Western Ontario in London, Ontario. He assumed chairmanship of the department on July 1, 1968 for a three year term. He was elected to membership in the university Senate for a two year term in October, 1968.

ROBERT B. SIMPSON (MA 1933; PhD 1941) is Associate Professor of Geography at Dartmouth College. He reports, "In addition to teaching began a grant under the NASA-funded Geographic Application Program of the Department of Interior, in February 1968. A multi-sensor NASA aircraft from the MSC, Houston, will make its second New England imaging flight during the week of 4 December, in connection with this grant. Main problem is WEATHER!"

HELEN BOYER SMITH (MRS. M.E.) (MA 1938) reports nothing new this year.

HELEN L. SMITH (PhD 1958) is a Lecturer in Geography at Chulalongkorn University in Bangkok, Thailand. She attended the IGU meetings in New Delhi where she gave a paper at the symposium on humid tropics entitled, "Suan Sema: Changes and Trends in Thai Vegetable Production."

SAMUEL W. SMITH (BA 1949) is Associate Professor of Geography at Indiana State University.

FRANK J. SPARICIO (MA 1963) is Assistant Secretary - Hartford Insurance Group in the Real Estate Department, regarding which he says, "The above is a change as of January 1, 1968. As an officer in the Real Estate Department I am concerned with the company's investments as they relate to Real Estate. The primary responsibility thus far has been in office and apartment house location and development. My family (wife Betty and three children) have taken up residence in Simsbury, Conn."

JOHN A. SOBOL (MA 1949) is Associate Professor of Geography at Memphis State University.

PAUL J. SORVO (BA 1953) is a cartographer on staff of Board on Geographic Names of the United States Geological Survey in Washington, D.C. He participated in the compilation of a Dictionary of Alaska Place Names in 1967, and gave a paper on place names in Alaska, "Pedro, Livengood, And Tanana, A Study of Place Names Near Fairbanks, Alaska", at the Seventh Names Institute of the American Names Society at Fairleigh Dickinson University in May of 1968. He attended AAG meetings in Washington, D.C. where he enjoyed seeing old friends; And, Oh yes, attended the Southeastern Division, AAG Meetings in Gainesville, Florida in November 1967; He hoped to attend this year also, but did not make it. Paul and his wife Alice enjoy their own home of two years.

KARL STACEY (PhD 1955) is Professor of Geography at Kansas State University. He writes, "Spent September 1967 to July 1968, as a Research Scholar, Geography Department, Australian National University, Canberra, Australia. Published "Consumption and Production of Petroleum from the Australian Mainland 1968-1990". No "new" children to report... but we took three old children to Australia, who profited greatly from the Canberra schools and the tremendous travel opportunities."

ROBERT G. STONE (1931-32) is Scientific and Technical Information Officer for Air Weather Service at Scott Air Force Base in Illinois. He is working with the Committee planning the celebrations of the 100th anniversary of the U.S. Weather Bureau and 50th anniversary of the American Meteorological Society.

VINCENT J. TALARICO, JR. (MA 1966) is a teacher with the Brewster Board of Education, Brewster, New York. He has a novel, co-authored with Dr. Rodolfo LaBourdette awaiting publication; a collection of short stories and poetry awaiting publication; and expects to spend this summer studying in Ecuador. He has introduced into the high school curriculum: 1. Geographic Basis, Latin American Problems; and 2. Geographic Basis, African Problems. Bravo!

R. PAUL TERRELL (PhD 1949) is the Jeffries Professor of Geography at Western Kentucky University. He writes, "During late August and early September, Beth (Mrs. Terrell) and I visited the Brazilian Highlands, centering our activities in and near Brasilia. We traveled as far south as Riberao Preto, and during bus trips to the east, southeast, and southwest we observed flora, soils, climatic conditions, terrain, land use, and cultural landscapes of towns and cities. Stops in route to and from Brasilia were made in Port of Spain, Medellin, Belem, Manaus, etc. The *Journal of Geography* was kind enough to publish a chapter of my recent study of the pulp and paper industry. The October, 1968 issue carries the article "Newsprint manufacturing in the Southeast". *Southern Pulp and Paper Manufacturer* published revised editions of my maps of pulp mills by capacity and type and paper mills by capacity and type for the Southeast. The maps appeared in April and October issues. During the recent convention of Southeastern Division of Association of American Geographers I presented a paper entitled "Shoe manufacturing and related industries in Tennessee and Kentucky". Current research interests center about a revision of world climatic map, with special emphases upon tropical highlands and North America".

JAMES E. and JEAN VANCE (PhD 1951; PhD 1958) James Vance, Professor of Geography at the University of California at Berkeley, spent the fall of 1968 in Europe looking at medieval cities. Jean Vance is Associate Professor of Geography at San Francisco State College.

CHARLES B. VARNEY (MA 1953; PhD 1963) is Senior Lecturer at United College of the Chinese University of Hong Kong, on leave for two years from his position of Professor with the Department of Geography-Geology at Wisconsin State University in Whitewater. He writes, "In spring of 1968 I accepted the invitation to lecture for two years in United College. Travel to Hong Kong with stops in San Francisco, Hawaii, Japan and Okinawa was stimulating and rewarding. Currently working under a research grant studying The Geography of Paper in Hong Kong. We were honored and delighted in having

Dr. Erwin Raisz give a demonstration-lecture at United College and had the pleasure of informal visits with Dr. and Mrs. Raisz just a few days before they left for Bangkok where Dr. Raisz was fatally stricken by a massive cerebral hemorrhage. We have pictures of Dr. Raisz taken here in December.

DAVID E. VINCENT (MA 1963) is Assistant Professor of Geography and Associate Director of Continuing Studies at Westfield State College in Westfield, Massachusetts. After teaching at colleges in New Hampshire and New York, the Vincent's are now residing at 24 Shannon Lane, Westfield, Mass. Douglas Edward Vincent was born October 13, 1967; and Deborah Lynn Vincent was born September 12, 1968. Since leaving Clark University Dave has taken graduate work in Geography at University of Washington and University of Minnesota during various summers.

SEYMORE WEST (MA 1941) is a Contact Specialist with the United States Government in Philadelphia. He visited Clark in August and was impressed with the changes he saw.

KATHERYN THOMAS WHITTEMORE (MA 1925; PhD 1936) is Professor Emeritus, State University College, Buffalo, New York, and a self-employed writer. She is active in local community affairs as evinced by her receipt of the Susan B. Anthony Award from the Buffalo Inter-Club Council for outstanding service to the community.

STEPHEN O. WILSON (MA 1963) is in the Department of Geography at State University of New York at Albany. He helped in the hosting of the New York-New Jersey Division Meeting of AAG there in October. He held an NSF Research Participation Grant for work on ecological problems in Lake George this past summer. He is also a member of the Columbia University Seminar in Ecological Systems and Cultural Evolution.

DAVID C. WINSLOW (PhD 1948) is Professor of Geography, Department of Geography at Indiana University of Pennsylvania in Indiana, Pennsylvania. His field research continued on container shipping in the Caribbean Region involving trips to Puerto Rico, Trinidad and Curacao. He edited the Pennsylvania Geographer and two publications in his Series of College workbooks-- Middle America and South America-- for Wm. C. Brown Company. Mrs. Josephine Winslow, his wife, delivered a Paper on team teaching at the Annual Meeting of the National Council for Geographic Education.

MARY VOGT WOODLAND (MA 1943) is a Research Geologist with U.S. Geological Survey. She notes, "Still using my physiography training: (1) as Steering Committee member of the 4-State Lake Michigan Inter-league Group (League of Women Voters); and (2) as Planning Committee member of the "Seminar on the Lake Michigan Basin", January 27-29, 1969, in Milwaukee. This is being given by the League of Women Voters Education Fund through a \$75,000 grant from the Federal Water Pollution Control Administration. Once again last summer I was my husband's field assistant on his

5-week geological field trip to the Bitterroot Mts. of Idaho and to the Northern Cascades of Washington. We were collection rock specimens for the lithology collection at the Field Museum of Natural History, where Dr. Woodland is Curator of Igneous and Metamorphic Petrology".

A. JOSEPH WRAIGHT (PhD 1951) is Chief Geographer for the U.S. Coast and Geodetic Survey of the Environmental Science Services Administration in Rockville, Maryland. He published his book: Our Dynamic World, (Chilton, 1966), and an article: "Peary and The Pole" (in ESSA World, July 1968). He traveled and did research on the human ecology aspects of sub-human beings in the rugged highlands of the Pacific Northwest. An article covering this appeared in this February's Argosy.

MARION I. WRIGHT (MA 1946) is Professor of Geography and Chairman, Department of Social Sciences at Rhode Island College. He writes us, "In May a chapter on Africa South of the Sahara appeared in the Guin Text, World Resources; A booklet on Providence for the Providence School Department is in the duplicating process. Last summer an extensive Latin America trip provided new insights in the gamut of geographical perspectives both physical and cultural".