

SURVEY OF HOUSING AND FAMILY CONDITIONS: ORLANDO TOWNSHIP.

(WITH SPECIAL REFERENCE TO HOUSING NEEDS).

**Thesis submitted for the degree of Master of Arts.
University of the Witwatersrand.**

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I am able to present this thesis as a result of information obtained whilst I was carrying out a Survey for the Non-European Affairs Department of the City Council of Johannesburg. In acknowledging my thanks for being allowed to use this information, I must make it clear that the opinions and conclusions expressed are entirely my own.

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ACKNOWLEDGEMENTS

ERRATA.

PERSPECTIVE

- Page 3 Footnote (4) to read See Appendix D
- Page 5 line 12 to read..."they too would come to the towns"
- Page 6 line 3 "rated" to read "rooted"

INTRODUCTION

- Page 5 line 7)
- Page 6 line 5) "A.W. Bowley" to read "A.L. Bowley"
- Page 10 line 9 "Prof. E. Batson" to read "Professor Burrows"
- Page 10 line 21 "Yule & Mendall" to read "Yule and Kendall"
- Page 18 line 16 "stop" to read "stay"
- Page 20 line 8 "on" to read "of"
- Page 20 line 2 erase "of"
- Page 22 line 2 "itself" to read "themselves"
- Page 22 line 11 "real" to read "rent"

PARTS I - V

- Page 1 line 15 "there" to read "their"
- Page 2 line 22 Footnote (2) to read "See Appendix C"
- Page 5 line 6 erase "appendix"
- Page 6 line 20 to read "the Municipality rents stands"
- Page 12 line 7 "admit" to read "submit"
- Page 21 line 1 "at" to read "of"

Page 143 Footnote (9) to read: "B. Spence: The Problem of the Location.

S.A. Architectural Record, Feb. 1943.

Page 145 line 5 "their" to read "there"

Footnote (1) "Prof. Barrows" to read "Prof. Burrows"

Page 146 "be Corbusier" to read "le Corbusier" line 9

Page 149 line 11 "wanted" to read "counted"

line 18 "asserted" to read "assured"

line 20 erase (8) to be inserted line 21 after "Survey of Merseyalde

Page 154 line 7 "three" to read "two"

Page 156 line 2 to read "Page 147"

Page 157 line 15 "the Native Housing" to read "of Native Housing"

Page 169 line 3 & 4 erase "being overcrowded"

Page 169 line 4 to read "we find that the shelters have the lowest..."

Page 175 line 4 "and" to read "when"

line 8 "reading" to read "reaching"

Page 195 line 13 to read "Applying the H.O.S. & L.R.O.S. requirements..."

Page 213 line 2 "are" to read "then"

Page 218 erase footnote (2)

APPENDIX II F

line 3 "I therefore include"

APPENDIX II

line 44 "incorrect" to read "correct"

BIBLIOGRAPHY

erase "J.N. Richards: An Introduction to Modern Architecture etc."

B I B L I O G R A P H Y

BIBLIOGRAPHY.

Archibald, A.J.,
Crosby, A.J.T. and
Professor Pathy:

Cheap Building by Pise de Terre Methods: S.A. Institute of Race
Relations, Johannesburg, 1948.

Bauer, C: Modern Housing: Houghton Mifflin Co., New York, 1935.

Batson, Professor: The Poverty Line in Cape Town: Social Survey of Cape Town Report No.
S.P.3.

Batson, Professor: Social Security and the Coloured People: S.A. Institute of Race
Relations, Johannesburg, 1946.

Block, Alexander: Estimating Housing Needs: The Architectural Press, London, 1946.

Bogardus: The Development of Social Thought: Longmans, Green and Co., 1940.

Bondfield, The Rt. Hon. M.: Our Towns, A close-up A study made during 1939-42: Oxford
University Press, 1943.

Bowley : The Nature and Purpose of the Measurement of Social Phenomena, 2nd Edition, :
King and Sons, Ltd., London, 1923.

Bowley, A : Elements of Statistics (6th Edition) : Staples Press Ltd., London, 1946.

Bowley, M. : Housing and the State 1919 - 1944 : Allen and Unwin Ltd., London, 1945.

Brookes, Edgar, H. : The Colour Problem of South Africa : Lovedale Press. C.P. 1934.

Burger, J. : The Black Man's Burden : Gollancz, London. 1943.

Burrows, R. : Social Security and the National Income : S.A. Institute of Race Relations,
Johannesburg, 1944.

Le Corbusier : The City of To-morrow : John Rodler, London, 1929.

Le Corbusier : The Four Routes : Dolson, London. 1947.

Le Corbusier : La Ville Radiante : Edition de l'Architecture d'aujourd'hui - 1935.

Le Corbusier : Propos d'Urbanisme : Pirellier. Paris. 1946.

Chapin, F.S. : Field Work and Social Research : The Century Co., N.Y. 1920.

Clark, F. Le G. : Feeding the Human Family : Sigma Books, 1947.

Clayhanger : Problem of Housing a Nation "A Roof over us" (i) S.A. Pams. No.10 (S.S.)(ii):
Society of the Friends of Africa, Johannesburg.

Colcord, Joanna : Community Planning in Unemployment Emergencies : Russel Sage Foundation,
1930.

Connell, P.)
 Ivine-Smith, C.)
 Jonas, K.) Native Housing, A Collective Thesis: Witwatersrand University
 Kantorovich, R.) Press: Johannesburg. 1959.
 Wepener, F.J.)

Davison, Ronald, Sir: Social Security, The Story of British Social Progress and the
 Beveridge Plan : G.G. Harrap and Co. Ltd., London. 1943.

Drew, Fry, Ford: Village Housing in the Tropics with Special Reference to West Africa:
 Lund Humphreys. London. 1947.

Elliot and Russell: Social Disorganisation : Harper and Bros. N.Y. 1934.

Fry, Maxwell : Fine Buildings : Faber and Faber, London. 1944.

Gale, B.G. : The Incidence and Control of Venereal Disease among the Natives of an
 Urban Area : S.A. Medical Journal. 1939.

Gillooly, T : Possibilities of Developing Second Industries: "Development of South
 African Industry, South African Affairs Pamphlets No. 7 (S.S.) :
 Society of the Friends of Africa.

Guenalt, P.H. and Reedman, J.N. : Problems of Urban Growth and Local Government, S.A.
 Affairs Pamphlets No. 6 : Society of the Friends of Africa.

Glass, E : The Social Background of a Plan : Routledge, 1948.

Goldenweiser: Anthropology - An Introduction to Primitive Culture.

Gries, J. and Ford J. (editors) : Negro Housing: Report of the Committee on Negro
 Housing: R.P. Lamont and E.L. Wilbur, 1932.

- Harwood, M. : Statistics for Sociologists : Reynal and Hitchcock. New York. 1941.
- Hailey, Lord : African Survey : Oxford University Press, 1938.
- Hailey, Lord : The Future of Colonial Peoples : Oxford University Press. 1943.
- Howard, Ebenezer : Garden Cities of To-morrow : Faber, London. 1946.
- Hellman, E. : Rooiyard : A Sociological Study of an Urban Slumyard : Oxford University Press. 1948.
- Hellman, E. : Problem of Urban Bantu Youth : S.A. Institute of Race Relations, 1940.
- Hellman, E. (editor) : Handbook of Race Relations : Oxford University Press. London, 1949.
- Hubback, E : The Population of Britain : Penguin Books. 1947.
- Hunter, M. : Reaction to Conquest : Oxford 1936.
- Janisch, M. : A survey of African Income and Expenditure in 987 Families in Johannesburg. December, 1941.
- Janisch, M. : Marriage in Urban Areas : City Council of Johannesburg, 1942.
- Jenning, H. and Madge, C. (editors) : May the Twelfth Mass Observation Day Surveys : Faber and Faber Ltd., London. 1937.

Jones, C. (editor) : The Social Survey of Merseyside: Hodder and Stoughter. London, 1934.

Jones, Rheinalt, J.D.: Social Security and Non-Europeans: Reprint from Race Relations
Vol.II No. L, 1944.

Junod, H. : The Life of S.A. Tribe (Vol. 1 and 2): McMillan and Co. Ltd., St. Martin
Street, London. 1927.

Kerrich, J.C. : An Experimental Introduction to the Theory of Probability: Einar
Muntesgaard, Copenhagen. 1946.

Krige, Ellen : Effect of Town Life on Native Community - Native Location, Pretoria.

Kuczunski, J. : A short History of Labour conditions in Great Britain under
Industrial Capitalism Vol. I G.B. and the Empire 1750 to present day:
Fredrick Miller Ltd., London, 1942.

Kuczunski : Hunger and Work : Lawrence and Marshall, London. 1938.

Kuper, H. : The Uniform of Colour : Witwatersrand University Press, Johannesburg,
1947.

Documents Economie et Humanisme "Methode D'Enquete La Personne et Le
Foyer avec diagrammes" - Document No. 3 : Ecully. Rhone. 1944.

Lehret, L.J. et Desroches:) Document No. 6 : Methode D'Enquete Introduction et
) Generalites : Ecully. Rhone. 1944.

))
Queneau, J. et Fantapie R.) D Guide de L'Enqueteur : Ecully. Rhone 1944.

- Lewin, J. : An Outline of Native Law. : [Publisher] Esson and Co. 1944.
- Lewin, J. : Studies in African Native Law : The African Bookman. Cape Town. 1947.
- Ling, A. : "Housing, " Physical Planning : The Architectural Press, London.
- Llewellyn, Sir H.L. and Smith: The New Survey of London Life and Labour. Vol. I.
P.S. King and Sons Ltd., I - VII. London. 1932.
- Lundberg, G. : Social Research : Longmans and Green. New York etc. 1942.
- Lynd, R. and H. : Middletown. A Study of American Culture : Harcourt, Brace and Co.
New York. 1929.
- Macvicar, Neil : Western Civilisation and the Bantu : South African Institute of
Race Relations.
- McIver : Society : A Text Book of Sociology : McMillan. London. 1937.
- MacMillan, W.M. : Africa Emergent : Faber. 1938.
- Mumford, L. : Technics and Civilisation : George Routledge and Sons Ltd., London.
1934
- Mumford, L. : The Culture of Cities : Harcourt, Brace and Co. New York. 1938.
- Mumford, L. : City Development : Seeger and Warburg. London. 1946.
- Mumford, L. : Planning for the Phases of Life. "The Town Planning Review" Quarterly
Vol. XX No. 1 April, 1949 : University of Liverpool
Press.

Nathan and Thornton : Public Health, Housing and Slums Acts of the Union : Central
News Agency, Ltd., Johannesburg. 1935.

Nelson, Dr. H. : A Challenge to Social Conscience. "Lives are Cheap among the Poor in
South Africa." : South African Affairs Pamphlets No. 15
(3rd Series) Society of the Friends of Africa.

Osborne, F.J. : Greenbelt Cities - The British Contribution : Faber, London. 1946.

Phillips, R.E. : The Bantu of the City. : The Lovedale Press. 1938.

Pearse, I.A. and Crocker, L.H.: The Peckham Experiment. "A Study of the Living Structure
of Society." George Allen and Unwin Ltd. London.
1943.

Rice, Stewart (editor) : Statistics in Social Studies : University of Pennsylvania,
Press. Philadelphia. 1930.

Richards, I. : An Introduction to Modern Architecture : Penguin Books Ltd. New York.
1940.

Richards, J.M. : An Introduction to Modern Architecture : Penguin Books Ltd., New
York. 1940.

Richmond, M : Social Diagnosis : Russel and Sage Foundation. New York. 1930.

Rowntree, B.S. : The Human Needs of Labour. : Longmans and Green. London. 1931.

Rowntree, S. : Poverty and Progress : Longman Green and Co. London. 1941.

Saarennin, Eliel : The City: Its Growth, Its Decay, Its Future : Reinhold. New York. 1943.

Schnapper : Public Housing in America : The Wilson Co. New York. 1940.

Schapera (editor) : Western Civilisation and the Natives of South Africa : P.S. King and Sons, Ltd. London. 1934.

Segal, Walter : Home and Environment : Leonard Hill. London. 1948.

Sharp, Thomas : Town and Countryside : Oxford University Press. 1937.

Simon, E.D. : Rebuilding Britain. "A Twenty-Year Plan." : Gollancz Ltd. London. 1945.

Smith, L.A. : No Social Security without Soil Security - "The Soil declares war on Man." : Society of the Friends of Africa. Johannesburg.

Smuts, J.C. : The basis of Trusteeship in African Native Policy." : South African Institute of Race Relations. 1942.

Tippet : Methods of Statistics (3rd edition) : Williams and Norgate. 1948.

Towndrew (editor) : Replanning Britain : Faber and Faber Ltd. London. 1941.

Walker, Oliver : Kaffirs are Lively : Gollancz Ltd. London. 1948.

Williamson, and Pearse, I. (editors) : Biologists in Search of Material on Interim Report on the Work of the Pioneer Health Centre. (2nd Edition) : Faber. London. 1947.

Wilson, G. : The Economics of Detribalisation in Northern Rhodesia : Rhodes-Livingstone Papers Nos. 5 and 6.

Yorke, F. and Gibberd : The Modern Flat (2nd Edition) : The Architectural Press, London. 1948.

Young, P.V. : Scientific and Social Surveys and Research: Prentice Hall. New York. 1944.

Young, P.V. : Interviewing in Social Work : McGraw-Hill. 1935.

Yule and Kendall : An Introduction to the Theory of Statistics : Griffin. London. 1948.

P.H. Cornell : Sub-Economic Housing Practice in South Africa : Building Research Institute, 1947.

Institut National: d'Etudes Démographiques : Desires des Français en Matière d'Habitation Urbaine : Presses Universitaires de France. 1947.

Legal Disabilities of African
"Reprint from Race Relations Vol. XI. Nos. 3 - 4. 1944. :South African Institute of Race Relations.

C.J. Clopper and E.S. Pearson : The use of Confidence or fiducial limits illustrated in the case of the binominal. Vol. XXVI. Biometrika: University Press, Cambridge. 1934.

ARTICLES

- Allison, J.S.:** (a) Urban Native Legislation.
(b) Some Aspects of Urban Native Administration.
Race Relations Vol VII No. 4.
- Archibald, A.J.:** Native Housing : RR/11/46 MP.
- Ashton, E.H. :** Democracy and Indirect Rule : Africa Vol. XVII No. 4. October, 1947.
- Batson, Professor :** The Poverty Line in Salisbury.
- Bertho, J. :** Le Probleme du Marriage Chretien en Afrique.
Occidentale Francaise Africa Vol. XVII No. 4 . October.,
1947.
- Brent, J.R. :** Training Depots and Labour Exchanges. Vol. XIII No. 2 1946.
- Bloom, L. :** Transitional Adjustment of Japanese - American Families to Relocation.
American Sociological Review. Vol. 12 No. 2 April, 1947.
- Brunsmann, H.G. :** Current Sources of Sociological Data in Housing .
American Sociological Review Vol. 12 No. 2 April, 1947.
- Butler, H. :** The Need for Registration of Customary Unions.
African Studies Vol. IV. No. 4 December, 1930.
- Chapin, F.S. :** New Methods of Sociological Research on Housing Problems.
American Sociological Review. Vol. 12 No. 2 April, 1947.
- Faris, R.:** Interaction of Generations and Family Stability:
American Sociological Review. Vol.12 No. 2 April, 1947.
- Floyd, T.E. :** A Study of Township Layout with particular reference to Costs of Services:
S.A. Architectural Record. December, 1944.

G.

- Glick, P. : The Family Cycle.
American Sociological Review. Vol. 12 No. 2 April, 1947.
- Guenalt, P.H. : The African in Local Government.
Race Relations Vol. XIII No. 2 1946.
- Guenalt and Randall : Urban Native Housing in South Africa.
RR. Vol. VII. No. 4.

H.

- Hanson, N. : The Problem of Housing Now and After the War.
S.A. Architectural Record. August, 1944.
- Hanson, N. and Tonkyns, W.G.: City of Johannesburg Competition for N.E. Houses
Assessor's Report.
S.A. Architectural Record. September, 1944.
- Hofmeyr, J. : The Approach to the Native Problem.
RR. Vol. III No. 2 and 3 May and August, 1936.
- Holland, E.M. : An Experiment in Slum Clearance :
RR. Vol VII. No. 4.
- Holford, W.G.: Civic Design : An Enquiry into the Scope and Nature of Town-Planning.
The Town Planning Review. Vol. XX. No. 1 April, 1949.

J.

- Janisch, M. : Health and Social Welfare Services for Natives in Urban Areas.
RR. Vol. VII No. 4.

K.

- Kiser, C.V. and R.K. Whelpton: Progress Report on the Study of Social and
Psychological Factors affecting fertility :
American Sociological Review. Vol. 12 No. 2. April,
1947.
- Kirkwood, K. : Review of Marriage in a Langa Location by R. Levin.
African Studies Vol. 7. Nos. 2 and 3 June and
September, 1948.

L.
Locke, H. : Predicting Marital Adjustment by Comparing a Divorced and a Happily Married Couple.
American Sociological Review. Vol. 12 No. 2 April, 1947.

M.
Mair, L.P. : Land Tenure : An Aspect of Culture Change.
Africa Vol. XVII No. 4 October, 1947.

Matthew, Z.K. : An African Policy for the Union.
Forum 12/2/49.

Mumford, L : Planning for the Phases of Life.
The Town Planning Review. Vol. XX. No. 1 April, 1949.

N.
Niebuhr and Pistorius: Planning and the Design of Layouts.
S.A. Architectural Record. February, 1947.

R.
Rheinalt Jones, J.D. : Education and Race Attitudes.
Vol. III Nos. 2 and 3. May and August, 1936.

Rheinalt Jones, J.D. : (a) Native Urban Administration:
The Functions of Native Advisory Boards.
(b) Social Welfare Aspects
Race Relations Vol. XIII No. 2 1946.

Riemer: Sociological Perspective in Home Planning.
American Sociological Review. Vol. 12 No. 2. April, 1947.

S.
Saffery, A.L. : Liquor Problems in Urban Areas.
RR. Vol. VII No. 4.

Silberman : Sociology in Town Planning.
S.A. Architectural Record. June, 1944.

- Simon and Aronson : The Non-European House Competition.
S.A. Architectural Record. February, 1945.
- Simons, H.J. : Some Aspects of Urban Native Administration. RR. Vol. VII No. 4.
- Simons, H.J. : The Claims of the African in Municipal Government. RR. Vol XIII No. 2
1946.
- Smith, H.A. : Cheap versus Economic Construction in Housing Schemes.
S.A. Architectural Record. August, 1945.
- Sonnabend, H. : Sociological Approach to Housing and Town Planning.
S.A. Architectural Record. February, 1947.
- Stent, G.E. : Migrancy and Urbanisation in the Union of South Africa.
Africa Vol. XVIII No. 3. July, 1948.
- Van der Horst, S.T. : The African Worker in Urban Areas.
Race Relations Vol XIII No. 2. 1946.
- Venables, W.I. : The Relations of a Municipality with its African People.
Race Relations Vol. XIII No. 2 1946.
- Wirth, L.: Housing as a field of Sociological Research.
American Sociological Review. Vol. 12. No. 2. April, 1947.
- Housing Digest. Art and Education Ltd. : Planning and Regional Reconstruction
Association.

OFFICIAL REPORTS AND PUBLICATIONS.

- (1) Union of South Africa. Report of the Native Economic Commission 1930-32. U.G. 22 - 1932.
- (2) Union of South Africa. Report of the Native Affairs Commission 1936. U.G. 48 - 1937.
- (3) Union of South Africa. Report of the Commission appointed to inquire into the operation of Bus Services for Non-Europeans. U.G. 31 - 1944.
- (4) Union of South Africa. Department of Native Affairs. Report of the Native Laws Commission 1946 - 48. U.G. No. 28 - 1948.
- (5) Official Year Book of the Union of South Africa and of Basutoland, Bechuanaland Protectorate and Swaziland. No. 22 - 1941.
- (6) Preprints from the Official Year Book of the Union of South Africa and of Basutoland, Bechuanaland Protectorate and Swaziland. No. 23 - 1946.
- (7) The Union of South Africa Urban Areas Act 21 - 1923.
- (8) Reports of the Cape Town Social Survey.
- (9) Reports of the Durban Housing Survey.
- (10) City of Johannesburg. Non-European Affairs Department Survey of Reef Locations. May, 1939.

- (11) City of Johannesburg. Non-European Affairs Department. Report of the Bantu Juvenile Delinquency Conference held in October, 1938. November, 1939.
- (12) Non-European Affairs Department. Some observations of Indigence and Malnutrition with particular reference to the incidence of T.B. among the Urban Bantu 1938, by M. Janisch.
- (13) Record of proceedings of Conference on Welfare Work - Orlando 10. 6.39.
- (14) Memorandum submitted to the Wage Board African Commercial and Distribution Workers' Union. Misc. 7/38 - 1938.
- (15) Report of the inter-departmental Committee appointed to investigate the Social, Health and Economic conditions of the Natives. 1942.
- (16) City of Johannesburg. Non-European Affairs Department. Survey of African Industries within the Municipal area of Johannesburg. June, 1939.
- (17) City of Johannesburg. Survey of Bantu Education in Johannesburg. 1938.
- (18) Report of the Christian Council of South Africa Conference in Pretoria, 1940. African Family Life.
- (19) Reports of the S.A.C.S.I.R. Building Research Institute, Pretoria. 1949.
 - (a) Interim Report of the Sub-committee on Social Trends.
 - (b) Interim Report of the Sub-committee to survey the attitudes of Occupants to Houses.
 - (c) Interim Report of the Sub-committee on Legislation.
 - (d) Interim Report of the Sub-committee on House Planning and Design.
 - (e) Interim Report of the Sub-committee on Heating, Cooling and ventilation.
 - (f) /

(f) Interim Report of the Sub-committee on Lighting.

- (20) Design of Dwellings: Report of the Design of dwellings Sub-committee of the Central Housing Advisory Committee appointed by the Minister of Health and Report of the Ministry of Town and Country Planning on Site Planning and layout in relation to Housing. His Majesty's Stationery Office, London. 1944.

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SURVEY OF HOUSING AND FAMILY CONDITIONS:

ORLANDO TOWNSHIP.

INTRODUCTION.

THE AIM OF THE SURVEY:

" Social planning is the concern of us all. We are manifestly not content that there should be a monopoly of planning. But our best contributions to the social plans of our age will come to nothing, or worse, just in that measure in which they are based upon ignorance; upon ignorance of the way other people are circumstanced; upon ignorance of other people's aims and purposes in life. And they will have a chance of success just in that measure in which they are based upon knowledge." (1)

This survey of housing and family conditions in Orlando Township seeks to throw some small light on the conditions in which the ever increasing population of urban Africans live, with special reference to their housing needs. Yet if it achieves nothing but to emphasise the need for larger, well planned and scientifically carried out social surveys - surveys into all aspects of urban African life, as an essential preliminary to planning for their

(1) Professor Batson - Social Survey Conference, 1942.

needs, it will have served a valuable purpose.

From all sides we hear of the shortage of Native housing. Where there are houses we hear of the shortage of amenities to serve their inhabitants.

The Urban Areas Act (1923) holds the local authorities responsible for the provision of houses for Natives ordinarily employed within their area for normal requirements. Yet Johannesburg alone is faced with the prospect of building five times as many houses in the next 10 years as have been built in the past 30 years. But -

"knowledge is the necessary step that goes before planning. Much of what has passed for planning in the past, much of what has been advocated as planning for the future, does not deserve the name of planning at all, but of speculating. Planning, as I understand it, means the rational ordering of our affairs upon a basis of knowledge." (2)

Much of our planning in the past has resulted in waste of money, waste of material, waste of energy. And is not this method of "trial and error" in planning much more costly in the long run than one based on investigation providing the necessary knowledge to plan with precision towards a well defined aim?

And thus, whilst this survey of Orlando does not claim to be able to indicate lines of social policy, it does claim to point a finger in the right direction - that of seeking knowledge before planning.

(2) Professor Batson - Social Survey Conference, 1942.

THE DEMARCACTION OF THE FIELD OF INVESTIGATION:

The TOWNSHIP of ORLANDO was decided upon as the field of investigation as it promised to give a good cross-section of African Native life for the following reasons :-

- (i) Orlando is the largest of the Johannesburg Municipal Native Townships established in 1932 as a "model township".
- (ii) It combines the most elements typifying modern Native urbanisation such as the growing tendency to build Native townships away from the City and far from the Native's place of work.
- (iii) It comprises the greatest number and most varied types of building schemes undertaken in Municipal Native townships as well as temporary dwellings.
- (iv) Orlando is still expanding. It thus includes families who have lived in the Municipal township for a number of years together with families who are only recent arrivals to the township.
- (v) Orlando gave birth to the first of a number of squatter settlements (March 1944) whose remains are now to be found in the four blocks of Temporary Shelters built by the Municipality and housing over a quarter of Orlando's population. These are proportionally represented in the survey sample and are considered to provide a valuable index of the housing needs.

AN OUTLINE OF THE METHODS OF INVESTIGATION:

The survey lasted from January, 1948, to July, 1949. In January, 1948, the subject of the survey and the field of investigation were chosen and planned. At this stage research into available literature and statistics (or lack of statistics) on the conditions of urban Africans, was undertaken.

In February, 1948, a preliminary survey was made of educational, religious, health, recreational and welfare facilities in the Municipal townships. This provided opportunity for contact with teachers, ministers and other prominent Africans, whose advice as to what conditions needed investigation proved most valuable. Investigators thus obtained an idea of the layout of Orlando township and of its resources of communal amenities.

It was decided that the survey should investigate the living conditions and the household composition of families in Orlando, with special reference to housing needs. The methods of investigation were to comprise a random sample, field investigation, case studies, the study of available records and documents and statistical analysis.

The Sample:

"Random sampling is defined by Kurtz and Edgerton as 'the process of selecting a limited number of individuals in such a manner that every individual in the population or universe that is to be represented by the sample has an equal and independent chance of being included in the sample'. Statistics calculated from such samples have special properties. They are not only approximations to the corresponding calculations that would have been yielded by examination of the entire parent universe but they are approximations with a calculable degree of accuracy. Absolute accuracy is never attained or sought in any science; the scientist is always satisfied

with the degree of accuracy that is warranted by his purpose and his resources. And, therefore, science is able to make universal use of the method of random sampling." (3)

Sampling in social surveying has been successfully used in a number of significant surveys in England, America and by Professor Batson in South Africa. Examples of what has been done and what can be done using the technique of the random sample are to be found in A.L. Bowley's "Livelihood and Poverty" (1915), D. Garodog Jones "The Social Survey of Merseyside" (1934), and "The New Survey of London, Life and Labour" (1928) undertaken by the London School of Economic and Political Science under the direction of Sir H. Llewellyn Smith, and in the Cape Town Social Survey.

Sampling provides an alternative to the method of complete enumeration, such as employed by B. S. Rowntree in his "Survey of York". It has the advantage of saving both time and money. But, because of its relative smallness it has the disadvantage of a large margin of approximation.

"The practical use of the theory of random sampling lies largely in the fact that it allows us to measure objectively in terms of probability, errors of estimation or the significance of a result obtained from a random sample" (4)

Random selection must be made by choosing a unit here and there avoiding all bias in choice. This may be done in the following ways :-

(3) Professor Batson S.S.9.

(4) Introduction to Statistics - Yule & Kendall.

- (i) By using Tippet's numbers.
- (ii) By extracting numbers from a hat when all the numbers are of the same size and weight. Each number is replaced after having been seen in order to ensure the same chance of selection for each number.
- (iii) By the method initiated by A.W. Bowley in his survey of Reading 1912/13. This is based on the extraction of every nth unit from a list of dwellings, directory, etc., taking the first unit at random.

The last method was the one employed in the survey of Orlando. A map denoting the stand numbers was used. Information was obtained from the Superintendents as to all stands occupied for purposes of shops, schools, churches, offices, vacant stands, or for purposes other than dwellings. These were eliminated. A number was taken at random and every fiftieth dwelling thereafter selected and included in the sample.

The sample was further stratified according to superintendencies, of which there are three, and the temporary shelters comprising a further stratum. This stratification was felt to be necessary as each superintendency represents different housing schemes built and occupied at different periods.

In this way a sample of 232 dwellings was obtained comprising 2% of the total number of dwellings in Orlando Township as at the 31/1/48.

In sampling, the margin of error decreases as the size of the sample increases. But the increase in accuracy is not proportional to the increase in the size of the sample. Thus after a certain limit the law of diminishing returns operates and it is no longer worth while (for the proposed purposes) to increase the sample.

In the present survey the sample was necessarily limited by the lack of

staff, facilities and time, and thus a relatively large margin of approximation is to be expected.

Field Investigation.

The field investigation began 24/2/48 and lasted till 10/11/48, both investigators working 5½ days and on some occasions 6 days a week. Thereafter a few visits were made to Orlando in order to check some points take photographs and discuss certain factors arising out of the survey, with independent persons such as ministers, teachers, Advisory Board Members.

Whereas there are standard techniques of social research which can be universally accepted, local conditions and different cultures necessitate certain modifications. The experience of a sub-committee of the Council for Scientific and Industrial Research was that in the field of Native housing :- (5)

"great difficulties stood in the way of the successful use of the questionnaire method - difficulties of language, psychology, complications arising from misunderstanding as to the purpose of the investigation and so on."

It was felt, in the survey of Orlando, that in the case of Africans a single interview for the purpose of filling in information on schedules, would not be an advisable method; suspicion as to the motive and purpose of the inquiry would inevitably lead to the giving of incorrect information. It was therefore decided, first to establish friendly contact with the family and to obtain a general picture of its structure through casual chatter and observation. Detailed case records of all visits to the families were kept including all data relevant to the family life, conditions and attitudes. No writing was to be

- (5) Sub-committee to survey the attitude of occupants to Housing.

done at the house of the family investigated before investigators felt confident that it would not antagonise the informant and effect the validity of the data.

The data was finally recorded on schedules consisting of seven coloured cards (6) dealing with census information (age, sex, relationship), marital history, migration, education, income, expenditure and housing. (7)

Card information and case records were subsequently carefully compared and where information did not correspond the families were visited and the information checked. More often than not this necessitated several subsequent visits.

Case records of investigations made by the Native Welfare Branch, Non-European Affairs Department, proved a valuable source of information and checking. A number of the sample households (53) had previously been contacted by this Branch.

The data was further checked with the information contained in the Tenant's Record Cards and file records at the Superintendent's office.

At the time the Public Health Department was engaged in an investigation to assess the number of persons living per dwelling and they kindly allowed us access to these results.

(6) As will be seen these cards supply several cross checks which prove most helpful in gaining accuracy. Again the colour variation which originally was planned for the convenience of the investigators proved psychologically valuable in regard to the informant. The average time necessary to fill in the seven cards was 1½ hours. When plain white cards were used (as was done in the beginning) the informant tended to get bored and lose interest. When coloured cards were used it was found that the informant's interest revived appreciably with each change of card.

(7) See Appendix I.

Wherever possible documents such as marriage certificates, baptismal certificates, passes, burial society cards, etc., were consulted. These were not, however, demanded as in many cases this would have aroused suspicion as to the motive underlying the survey.

Photographs often proved a valuable check.

In a few cases it was necessary to contact employers in order to obtain or to check the information regarding income.

The greater bulk of the information was derived from visits to the families at their houses. On a few occasions persons were contacted at their place of employment and on three occasions letters asking persons to call at the Investigator's Office were sent. (See Appendix II).

AN EVALUATION OF THE SOURCES OF INFORMATION.

The sources of information can be summarised as follows :-

- I. Literature.
- II. The Survey.
 - (a) Household visits with subsequent case records and information filled in on cards.
 - (b) Case records of the Native Welfare Branch, Non-European Affairs Department.
 - (c) Records and files at the Superintendent's Office.
 - (d) The enumeration of the Public Health Department.
 - (e) Where possible, documents and papers.
 - (f) In a few cases, employers.
 - (g) Occasionally neighbours' gossip provided a valuable clue to pursue.

Now let us examine each of these in turn -

I. Literature.

Of special value in the planning, executing and analysis of the survey have been the following works -

Prof. E. Batson - "The Cape Town Social Survey", in particular

SS 9 Methods of Survey.

SS 17 Definitions.

SS 11, 12, 19, 22, 24, 26 and 27 Overcrowding.

Prof. E. Batson - ^{Bureau} "The Durban Housing Survey".

Lundberg - "Social Research".

Rountree - "Poverty and Progress".

" - "A Survey of York".

Carodog Jones - "The Social Survey of Merseyside".

Director: Sir
Llewellyn
Smith - "New Survey of London - Life and Labour".

E. Hellman - "Rooiyard - A Sociological Survey".

M. Janisch - "Survey of Income and Expenditure, Johannesburg.

Chapin - "Field Work and Social Research".

Bowley - "The Measurement of Social Phenomena".

Kerridge - "An Experimental Introduction to the Theory of Probability".

Tippet - "The Method of Statistics".

Yule & Kendall - "An Introduction to Statistics".

Pauline V. Young - "Scientific Social Survey and Research".

Files of the Non-European Affairs Department.

Handbook of Race Relations 1949.

(For details of above references see Bibliography.)

II The Survey.

(a) Household Visits.

All first contacts with the families were made by both investigators together.

Subsequent visits were made by one or both investigators, depending on the type of information required, the re-action of the informant and the language to be spoken.

The main difficulties encountered with this part of the survey were -

- (1) Suspicion and fear due to persons' illegal activities.

Many householders are connected with illegal activities of one kind or another. Many women are beer brewers and indulge in this illicit activity in order to make money or simply to make beer for private consumption. As this activity is strictly prohibited, such women are in constant danger of being discovered and reported.

Many persons, despite the danger of heavy fines, trade illegally within their dwellings, often using an enclosed veranda as a shop. Again many persons harbour illegal tenants - relatives or friends, for whom no permits have been obtained.

Finally many persons are in illegal occupation of the dwelling and are not the registered tenants in whose name they are living.

It can thus be appreciated that these persons do not welcome the appearance of strange visitors.

(2) General Distrust of Europeans.

Quite apart from the specific reasons for fear (mentioned above) there is a widespread distrust of all Europeans and the phrase "Never trust a European" is repeatedly heard. Many also are opposed to the Municipality as such and to the Municipal Officials. There is therefore a general reluctance to give away information - "one never knows how it may be used" - the urban Native community has often been exploited by unscrupulous persons - (both European and Non-European) and so are wary of any stranger.

(3) Illiteracy.

The widespread illiteracy amongst Natives made it difficult to obtain accurate information as to dates and ages.

(4) The Mobility of the Urban Native Population.

This proved a serious difficulty in a survey of this kind where families were revisited at intervals. This will be more fully discussed in Section II.

(5) All Adults working.

In many households it was found that all responsible persons capable of giving information were working during the week.

(6) Lack of staff and facilities.

The fact that the survey was carried out by only two investigators made the period in the field lengthy in relation to the size of the sample. This fact was aggravated by the lack of transport facilities.

The more specific difficulties will be dealt with in their relevant chapters.

Means of overcoming difficulties.

As in all scientific work it is foolish to claim that complete accuracy is obtained. But one tries by all possible means to reduce the error to harmless proportions. The methods of the physical scientist are carried out in a laboratory under controlled and more accurate conditions. Those of the social scientist are modified to a large extent by the properties of the unit investigated, i.e., the type of person dealt with; his culture; his peculiarities - factors which cannot as easily be controlled and as accurately measured.

It will thus be seen that factors peculiar to urban Native society largely conditioned the methods used by the investigators in overcoming the difficulties encountered.

(1) Suspicion and fear due to persons' illegal activities.

The reasons for antagonism and fear were detected by the investigators who were on the look-out for such things, e.g., by the presence of drums of liquor, sieves, cases of merchandise in the case of brewing and illegal trading, and by general chatter about various children and persons in the house in the case of unregistered persons. It was found that a good manner of obtaining the correct names of the family investigated was for the investigator to introduce themselves by family name on arrival asking for a reciprocal response from the informant before the reasons for the visit etc., were discussed. Having obtained the names and information concerning the registered tenants from the office, it was then possible to ascertain whether the informant belonged to the registered tenant's family or not. (8)

(8) This however was not foolproof as it was soon discovered that personal names and clan names were easily interchanged.

Having ascertained the reason for antagonism, avoidance or fear of giving information, it was then possible to deal with it. Informants were assured that the fact that e.g., they brewed, did not concern the investigators; that the Superintendent was not allowed access to the information obtained which would be treated as strictly confidential, and that in the final report only figures would appear - no names or addresses. The need for accurate information in order that planning arising out of the survey should be according to the needs of the people, was stressed. Such re-assurances were repeated until such time as the informant felt willing to give information without feeling compelled to do so.

(11) Suspicion and fear of the Investigators.

This was overcome by gaining the confidence of the families often by the method of the indentifications of the investigators with the investigated. As Pauline Young (9) points out "on occasion it may be essential to give them (the informants) an opportunity to view their interrogators further and to become acquainted with his or her situations, beliefs, and ideas before they are asked to reveal theirs and to commit themselves". (10) Thus investigators often found themselves obliged to account for their ages, marital status, race, domicile, etc., before obtaining the required information from the householder (See Appendix vi).

(9) Pauline V. Young - "Scientific Social Surveys and Research".

(10) Care has to be taken, however, not to create a situation where the investigated answers questions in a manner estimated to please the investigator i.e., that the interrogated does not in turn seek identification with the interrogated.

Small points such as greeting in the African manner, all persons encountered, the acceptance of tea and food, listening to accounts of the day's happenings, their difficulties etc., went a long way to convince householders of the investigators sincerity.

The fact that one of the investigators is an African who is well acquainted with the customs of most South African tribes, proved invaluable throughout the survey. She was able to interpret many significant but puzzling factors, both to the other investigator and to the investigated. In other instances it was possible for the European investigator to obtain information by asking questions, which, coming from a fellow African, would have been considered as impertinent or mere inquisitiveness. (11)

An advantage in the gaining of the people's confidence and obtaining more accurate information was the fact that with the exception of the Rhodesias, Nyasaland and tribes further north, persons were addressed in their own language (9 in all).

(111) Illiteracy.

The difficulties arising out of illiteracy were more difficult to overcome. Ages and dates were estimated according to a list of historical events. (12) Further checks such as in the case of children asking mothers to estimate the intervals between births, were employed. A large part of that data, however, must remain only estimates.

(11) This was particularly true for questions concerning income, number of marriages, where persons sleep, etc.

(12) Compiled by Mrs. Henderson, Welfare Branch, Non-European Affairs Department.

(iv) The Mobility of the population.

In order to eliminate as far as possible inaccuracies arising out of this factor, it was found necessary to record information concerning all persons dependant on the head of the household, and all children of head and spouse whether married, dead, independent, living away from home or otherwise. It was then possible, in the light of this information, to see the household in its entire setting and to arrive at the true composition of the household. (See Section II).

(v) All adults working.

When all adult persons were working, information as to their days off was obtained from neighbours or children. Saturday thus proved a busy day. When this repeatedly failed, the head was visited at his place of employment.

(vi) Lack of Staff.

Lack of staff was not overcome. The sample was thus necessarily reduced to 2% returning the small number of 232 households.

(b) Case Records of the Native Welfare Branch, Non-European Affairs Department.

These provided a good spring-board, giving an insight into family conditions and enabling the investigators to decide on the best method of approach before contacting the family. Where assistance had been given by the Welfare Branch persons were usually well disposed towards Welfare investigators and usually proved co-operative.

(c) Records and Files at the Superintendent's Office.

These proved valuable from many points of view. In the case of tenants of long standing they provided an insight into their past history; they provided a check for many of the questions asked; they revealed the fact that a large proportion of the persons living in Orlando are not the registered tenants of these houses. As previously pointed out this enabled investigators to take the necessary steps to overcome antagonism arising out of this factor.

(d) The Public Health Department Enumeration.

A comparison of our results with theirs disclosed a great discrepancy in numbers, theirs often being smaller than ours. This could usually be traced to unwillingness on the part of the householders to reveal unregistered persons.

(e) Documents.

Where documents were seen they provided a check to this data, and assisted in the establishing of dates and ages. Photographs proved equally valuable, e.g., photographs of bridal couples in full regalia helped to establish the "type" of marriage.

(f) Employers.

In the few cases when it was necessary to contact employers they proved most obliging. It was usually in connection with wages. Wages for Africans are on the whole standardised. The usual wage rates were known to the investigators and where unusual information was given, there were, where possible, checked.

(g) Neighbours.

Although neighbours' gossip on several occasions provided a clue to pursue e.g., on the family relationship, it was never taken as final without further investigation.

The original data was by these methods checked until investigators felt confident of its validity, when the family card and file were closed. There was one complete refusal (See Appendix VII).

THE ADVANTAGES AND DISADVANTAGES OF THE METHOD EMPLOYED.

The main disadvantages lay in the limitation of the sample to include only 232 households, and in the relatively long periods spent on field investigation. To the social surveyor who seeks to describe a society or certain elements within that society as they exist at a specific point in time, the shorter the period of investigation the better. On the other hand, for those who seek to see and to understand that society as a complex whole, the interactions of the various factors within it, their origin and function, the longer the period of investigation, the longer the investigator can stop in the field absorbing its atmosphere and participating in its activities, the more likely is he to arrive at a deep understanding of it. (13)

The "Survey of Orlando" will thus be criticised from both points of view, for -

- (a) Eight and a half months in the field, investigating so small a sample is long for the Social Surveyor, short for the Anthropologist.

(13) A good example of the latter will be found in "Middletown" by Lynd.

- (b) Case records are cumbersome to the Social Surveyor, yet invaluable to the Anthropologist.

The advantages of the method are that antagonism and suspicion were with time, abated, and the confidence of the people gained ensuring a greater validity of the data. Discussion of the same topic several times, with different members of the household and on different occasions helped to eliminate inaccuracies due to spontaneous response of individuals conditioned by their momentary disposition.

The method employed further gave the investigators the opportunity of achieving a greater understanding of the living conditions of families in Orlando, and a deeper insight into their needs by viewing the family in its entire context. "We want to have not only a precise account of events, but we want to know why they occurred, what their specific relations are to the social and cultural contact in which they had their birth". (14)

The fact that there were only two investigators whilst having serious disadvantages on the one hand, on the other had the advantage of ensuring a greater uniformity both in the approach to the families and in the technique of investigation. Each family was discussed by the investigators in order to check whether all relevant data had been collected to assess its validity, and to decide what further contact was necessary. Both investigators thus knew all the families in the sample and employed the same technique and terminology.

(14) Pauline V. Young - Scientific Social Surveys and Research.

THE CLASSIFICATION AND ORGANISATION OF DATA AND ITS PRESENTATION.

The field of investigation ended on 11/11/48. The data was thereafter coded and put through the Hollerith machines. The task of statistical analysis, tabulation and the presentation of the data began.

The main aim of statistical analysis is to give a clear precise description of a mass of figures. A further aim of statistical methods is to describe the variations between samples and a corresponding populations so that inferences regarding the population may be made from observations on the sample. As Professor Batson has put it, "the sample projects, as it were, its shadow over the entire population. The edges of the shadow are blurred, but its general shape is unmistakably a magnified version of that sample". (15)

Thus, in presenting the results of the investigation, observations made from the sample describe the entire population of Orlando Township, figures being given for the 95% confidence range and the 99% confidence range. The tables are presented in the manner used in the Cape Town Social Survey which is based on the following conventions :-

- " (a) the statistics recorded as "probable" (P). are those drawn direct from the sample. They represent the best single estimates that the data permits.

(15) See Report of Cape Town Social Survey No. SS 22.

(16) For large samples the factors 1.96 ~~sigma~~ and 2.58 ~~sigma~~ have been used in the computation of LL and CL. Since small samples behave in a somewhat irregular manner, the margins of approximation for those have been derived from the graphs of the Confidence Belts for Confidence Coefficients .95 and .99 of C. Clopper and E. S. Pearson.

- (b) the "Likely limits" (LL) define the range corresponding to statistical odds of 20 to 1 which are adequate for many practical purposes.
- (c) the "Cautious Limits (CL) recorded correspond to odds of 100 to 1 and may be taken as establishing virtual certainty." (17)

In some cases the analysis returned figures that were too small to be of any significant value when reflected onto the entire population. These are not presented in the bulk of the report but will be found together with all the original figures describing the sample in Appendices.

Method of Presentation.

Part I deals with a brief description of the field of investigation and should be studied together with the map of Orlando. Since the map was drawn in July, 1949, it includes certain buildings which were not as yet erected at the time of the survey - These have been marked.

It is becoming an accepted fact, as demonstrated by the British Town Planning Act of 1947, that housing people adequately does not depend only on the buildings but primarily on the type of persons to be housed; the composition, habits and attitudes of the population. Part II thus attempts to describe the inhabitants of Orlando touching briefly on some of the demographic, economic and social /

social conditions of the Orlando population. It is realised however that each of these sections constitutes a vast field of research in itself and many most essential aspects of this Part have had to remain undeveloped.

In Part III we come to the actual housing provided for this population; some of the adaptations made by persons to these houses and some of their attitudes towards them.

Part IV constitutes the crux of the Survey. Arising out of the personnel data collected we are in a position to measure to what degree the houses fulfil their functions defined by a specified standard of minimum requirements.

In Part V estimates of the type of house required by such a population, and the amount of real persons of Orlando can afford to pay for these houses, are arrived at.

Presented in the Appendices are the original figures used in the computation of the tables together with some further notes considered to be of additional value.

DESCRIPTION OF ORLANDO TOWNSHIP.

"The Natives have come to town, and in many cases they have come to stay it must be accepted as a fact that the Native population of our urban areas consists not only of Native migrants, but also of a settled population" (1) In terms of the Natives Urban Areas Act (1923) the accommodation of this population is primarily the responsibility of the local authority, within whose area such people are living and working. The bulk of them are housed in Native locations as defined in Section 2 of the Act. Orlando Township is typical of these locations.

A. THE HISTORY OF ORLANDO.

By 1930 the problem of housing Johannesburg's Native employees who were living under family conditions, became an urgent issue. A large proportion of them were living in slums such as Prospect Township, situated in the eastern area of the City, veritable dens of vice, harbouring within their congested, ramshackle dwellings, and intricate underground passages, criminals of all kinds. Their existence was also in conflict with the Government policy of residential separation, embodied in the first urban area Act of 1923.

So the City Council investigated possible sites where a suitable Native

(1) Fagan Report.

township could be established, which would, it was said, provide all necessary facilities for the Natives within their own separate area, yet allowing them to come into the City to work. The farm Klipspruit 49 of 1400 morgen was considered to have the requisite features and was purchased for the following reasons :-

- (1) It was eleven miles from the centre of the City, fulfilling the primary consideration of segregation of habitation yet not of work.
- (2) The railway line to Pinville already passed through the proposed site and only a little further development, which would not cost over much was necessary.
- (3) From the administrative point of view, Orlando was happily situated, as Pinville, a Native township controlled by the Municipality, lay only 2 miles away.
- (4) The power station was situated nearby and water would be easily accessible.
- (5) Road access would be easy as the Main Reef Road lay to the north and the main Potchefstroom Road to the south.

The City Council wished this to be a "Model Township" and so instituted a competition for its lay-out, open to the whole of South Africa. A prize of £500 was offered for the best layout, £300 for the second best and £200 for the third. The basic stipulation of the competition, however, made it practically impossible for a model township to emerge. (2)

(2) For stipulations of the competition see Appendix C

The first prize plan became the possession of the Council and the township was laid out accordingly with a few minor modifications. It was named Orlando after the Councillor Edwin Orlando Leake, Mayor in 1925/26, who had played a great part in bringing it into being.

Building started in 1932 on the first batch of 500 houses and the first inhabitants moved in. By the beginning of the war in 1939, one section of the township, Orlando East, was nearly completely built up. The war encouraged a considerable influx into Johannesburg, and at the same time checked the building of further houses. Consequently the need for accommodation rapidly increased. To alleviate this, work was started on Orlando West, and in 1941/2, 750 houses were built there. In 1944 the first squatters movement took place, which resulted in the building of 4,034 shelters in the valley between the two sections, intended as temporary accommodation for the squatters until they were housed elsewhere. The following year further housing construction was started, and contracts were signed in 1945 and 1946 for the building of four different types of houses, one being in conventional brick, one using refiles concrete, one a special form 7 panel construction and the fourth the Roberts' precast method. By the end of January, 1948, when the survey started, 462 houses had been built in Orlando West. Building continued throughout the period covered by the survey.

Meanwhile, the continued increase in population lead the Council to make provision for expansion elsewhere. In 1945 a further 1,400 morgen of land adjoining Orlando West was surveyed and laid out into four townships, designed originally to house 9,000 families, and to provide amply for schools, churches

and a university.

The next large scale squatter movement took place in 1946 (after several minor intermediate ones) and occupied the flank of a hill next to Orlando West. An emergency camp was then established on one of these townships named Moroka, where 10,000 sites were provided on which natives were permitted to erect their own dwellings. In 1947 a contract for the erection of 5,100 dwellings on the neighbouring township of Jabavu was signed and by the end of June, 1949, these dwellings had been completed and occupied. The density in this housing scheme is three times that originally planned, so that this whole area will probably house between twenty and thirty thousand families. In addition a further 900 morgen of land have been purchased by the Council immediately to the west of this area, which will provide for well over 10,000 more families. Early in 1949, the Manager estimated that 57,000 houses were required within the next 10 years to provide adequate accommodation for families at present living in slums, shanty town, the Emergency Camp at Moroka, and subtenants in the various Municipal locations, and to provide for natural increase. It will be seen from this brief sketch that Orlando is both a town in itself and a part of what will be a still greater Native town, a town of over 200,000 people.

B. TYPOGRAPHY OF THE SITE

Orlando is built on the slopes on either side of the valley of the Klipriver, Orlando East having in general a slope to the North-west and Orlando West a slope to the South-east.

The lower slopes, largely occupied by the temporary shelters, are marshy whereas the upper slopes, particularly in Orlando West, are rocky.

Orlando East is improved by the retention of well-developed gum trees and supplementary avenue planting.

C. THE LAYOUT OF ORLANDO
(Refer to Map of Orlando: Appendix)

"That Town Councillors' dream.
That Town Planners' nightmare -
Orlando Location."

The general impression one gets of Orlando is that of row on row of red-brick houses relentlessly continuing with no focal point on which the eye can rest. The few existing public buildings, instead of occupying a prominent position, recede into insignificance amid the vast agglomeration of dwellings. The bulk of the population work in Johannesburg, because Orlando has no industrial or large business zone. Yet it fails even as a neighbourhood of dwellings, being reduced to function more as a "dormitory" than as an organic community. There are few communal facilities and the individual houses themselves fall away, disintegrate, remain a collection of separate stands and dwellings, with no strong form to co-ordinate them.

In the new section of Orlando, the rows of red-brick houses give place to the glare of white concrete houses, lacking relief, and which again are not grouped in any consistent fashion.

At the time of survey Orlando was divided into three superintendencies, which also denote the stages in its development.

(1) Orlando East.

This comprises of 5,391 houses and is the oldest part of Orlando, built

in 1932, 1945 and 1947. It consists of 4,088 two-roomed houses and 1,801 three-roomed houses built on plots 50' by 72'. When Orlando was first established it did not prove popular, largely because of its distance from the City and the resultant cost of transport. In 1937, however, Prospect Township, a slum within Johannesburg, was demolished by the Municipal authorities and the inhabitants were transferred "en masse" to Orlando. Shortly thereafter the population of the Malay quarter in Vrededorp was dealt with in like manner. A portion of Orlando thus consists predominantly of Prospect Township ex-citizens and another of persons from Vrededorp.

Interspersed amongst the houses in Orlando East are the eighteen legal trading shops built by the Municipality. These are usually grocery/soft-goods with an occasional butcher shop or tearoom/fruitshop. There are no dairies, hair-dressers, greengrocers, chemists, banks, ladies' and men's outfitters, etc. Neither is there any area one could call the shopping centre. Persons, therefore, have to rely on provisions bought in the City for many of their most essential items. For persons who, because of their limited income, necessarily have to purchase in small quantities and therefore frequently, this becomes very difficult especially in view of the fact that most of them work long hours corresponding to the opening and closing of the shops. (3)

The Municipality^{ten 16} stands at a nominal rental of £1 per annum, to religious bodies for the establishment of schools and churches. All primary schools have been built by the missions with the exception of the Itivela Primary School, run privately by a group of Orlando parents, which has been allowed the free use of the Orlando Communal Hall. There is one Secondary School run by the Government

(3) One consequently finds a large number of illegal shops within the dwellings of Orlando which thrive by virtue of the fact that they are open day and night and within easy reach of the houses.

which goes up to Matric. Other public buildings are the administration offices, a Municipal Recreation Centre housed in an army hutment, a clinic, the post office, the police station, the lad's hostel, a child Welfare Refuge Home, a large Crèche, Day Nursery, a Nursery School, Training Institution, Mtutuzele a home for unmarried mothers, and a small building of the Animal Welfare Trust. There is a Municipal Communal Hall with subsidiary halls and rooms, which is used for meetings, concerts and other public activities, besides the High School. At the end of 1948 the Donaldson Community Centre, which had previously been using the Leake Hall, moved into new premises (See Photographs)

(2) Orlando West I.

On the opposite side of the Klip River, facing Orlando East, lies Orlando West I. At the time of survey (31/1/48) it consisted of 666 three-roomed houses and 734 four-roomed houses together with two blocks of temporary breezeblock shelters.

This section is supplied with only two trading stores and a block of 24 market stalls, situated between the shelters and the houses. These 24 stalls are all grocer shops and general dealers with the consequence that most of them eke out a poor existence. Competition is strong and illegal shops within the shelters are plentiful.

Orlando West I. has four churches, two schools and three crèches. It has its own administration offices and a small zinc hutment used as a club house (See Photograph) by the recreational section of the N.E.A.D. A Sheltered Employment Scheme, started in February, 1948, makes use of two three-roomed houses

in Orlando West I. There are no other public amenities in the Superintendency and the same facilities of Orlando East have still largely to serve this section as well.

(3) Orlando West II.

This is the most recent section of Orlando, still largely under construction at the time the sample was chosen. It lies directly north of Orlando West I, facing the other section of Orlando East (Mlanlankunzi) (Refer to Map). It is in this section that experiments in pre-fabricated concrete houses have been made.

At the time the survey was commenced (31/1/48) there were 462 complete and occupied houses. They have since increased.

Orlando West II further has the supervision of two blocks of temporary breezeblock shelters.

At the time of the survey one church, one school and one clinic, together with two shops and 21 market stalls (situated between the two blocks of shelters) comprised the public buildings of Orlando West II. Space has, however, been left for a few more schools and churches. The clinic is situated at the edge of one of the blocks of shelters.

4. The Shelters.

The shelters by virtue of their vice merit a special note. They are situated on ground near the Klip River which is in many parts very marshy and makes the shelters damp and unhealthy.

These shelters are built in rows of eight to ten shelters facing each other with 12 ft. passage space between them. They are built of breeze blocks and roofed with corrugated asbestos sheeting. Each shelter has an area of 144 square feet, with a small opening for a window and a hole in lieu of door (windows and doors are not provided). As the shelters are allocated one per family (irrespective of the size or composition of the family) most of the tenants have built on a front room of brick or more commonly mud and poles to provide them with an additional room and slightly more indoor privacy. This further reduces the space between the facing blocks of shelters. Thus what is most striking about these shelters is the lack of privacy.

Sanitary services are totally inadequate. Taps are situated at the end of each block. These are usually leaking and left open and water is constantly trickling down the passageways. Blocks of communal pail latrines are situated on the outskirts of the shelters. Garbage bins are provided at the back of the shelters but are often left open, overflowing or are entirely ignored. The garbage and the sewage is collected during the day which proves a most unpleasant and unsatisfactory arrangement, but necessitated by the fear of approaching that "den of crime", the shelters, during the night.

The demoralising effect of the shelters is felt throughout the Township - persons are afraid to pass them when travelling from Orlando West to Orlando East at night, for lurking around them are always gangs of "Ntotsis" ready to attack, stab or rob one; children run away and are to be found in the shelters absorbing its culte of vice, drinking, gambling and smoking; for many an illegal activity the shelters are ideal; should it be necessary for one to disappear, the shelters are conveniently there.

They are a warning against unplanned emergency measures.

D. Transport.

The bulk of the population of Orlando work in Johannesburg. There is no bus service operating between Johannesburg and Orlando. Only a few persons cycle to work as the distance and hilly nature of the country make this too difficult. Practically everyone travels by train, Orlando has two railway lines. The largest one continues through to Pinville and runs on the lower edge of Orlando East parallel to the Klip River, through two stations, namely Mlamlanakanzi and Orlando. Both stations are used by persons from Orlando West and the Shelters as well as from Orlando East. The second line serves Orlando West I and 2, through two stations Phofeni and Phomolong. The terminus at present is Phofeni but in course of time the line will be extended to serve the adjoining areas that are being developed as native townships.

Within the township the most common and efficient means of transport is by foot. There are infrequent railway buses linking the eastern sections of Orlando East to Orlando station as well as Orlando West I and Orlando station. A few taxis ply from Orlando station.

E. The Administration of the Township.

Orlando is administered by the Non-European Affairs Department of the City Council, in terms of the Native Urban Areas and of the Council's Native Location Regulations. A superintendent is appointed to be in charge of each location. In order to simplify the administration of Orlando, which is by far the largest Native township of the Johannesburg Municipality, it has been divided into three superintendencias; Orlando East, Orlando West I and Orlando West II.

Each has its own Superintendent, administration offices and staff. A Senior Superintendent is responsible to the Manager of the Department for the overall supervision of the whole Township. He shares an office with the Superintendent of Orlando East. The latter area has recently (June 1949) been subdivided into three divisions, each with its own Superintendent, office and staff. Each Superintendent is

responsible for the collection of rents, for keeping records of location activities and tenants, and for maintaining law and order in the location. He also has to act as mediator between the people and the Council, and as mediator and peacemaker in cases of domestic disputes and of disputes between tenants. The Department is responsible for sanitary services and for minor repairs and maintenance of dwellings.

Through its welfare section it is concerned with the general welfare of location inhabitants. The casework branch is responsible for investigating all cases of need, for the administration of pensions, the granting of poor relief, etc., the housecraft branch organises women's sewing and knitting clubs, cookery demonstrations, vegetable clubs, and the sheltered employment scheme in Orlando and the recreation branch is responsible for running boys' and girls' clubs in the townships.

The City Engineers Department is responsible for all technical services such as major repairs to buildings, roads as well as the layout of the township and design of houses. The Public Health Department is responsible for medical services, for the organisation of clinics such as ante and prenatal clinics, T.B. and V.D. clinics, ambulance services, nursing and midwifery services and a small cottage hospital.

The University Dental School has a dental clinic associated with the main Orlando Clinic. The Library Department runs two small library depots and plans to organise a main library.

Various private welfare agencies operate in the Township, such as the Child Welfare Society, Transvaal Association of Girls' and Boys' Clubs, Donaldson Orlando Community Centre, Pathfinder Boy Scouts Association, Wayfarer Guides. The Anglican Church, in addition to their ordinary mission and educational work, runs three creches and a Nursery School Teachers' Training Institute. The Moral Welfare Society organises Mtutuzelo, a home for unmarried mothers and a private committee - the Lads' Hostel, for committed boys.

PART II.

THE INHABITANTS OF ORLANDO.

1. DEMOGRAPHIC STRUCTURE.

The Population of Orlando.

"South Africa, more perhaps than any other country, requires powerful searchlights to illuminate the national scene. Statistical facts concerning the bulk of our population are however utterly inadequate. The scanty numerical data pertaining to non-Europeans render the analysis of the present situation exceptionally difficult and make the forecasting of future trends impossible." (1)

The true population of Orlando, the largest Native location in South Africa, is unknown. The Location Regulations provide that superintendents should admit a monthly return of the population, but this provision is not observed as the requisite information under the present system is practically impossible to obtain. The Regulations require the occupant of any dwelling in which a birth or death occurs to report it to the superintendent. Death registrations are probably fairly accurate as the body cannot be buried without both a doctor's certificate and a burial ground allocation/...

(1) Doctor H. Sonnabend - Handbook of Race Relations in South Africa - Chapter 2 Population (P4).

allocation card issued by the superintendent. It is possible, however, that some stillbirths are not registered and the baby secretly buried according to tribal rites. But registration figures are less accurate as the Regulations are often not observed, although the attendance at many births of a Public Health midwife, who subsequently registers them, helps to reduce the incidence of such non-observance. Again the movement of persons in and out of the locations is unknown. The Regulations require that every person over the age of 18 years, wishing to reside in the location, should apply to the superintendent for a permit to do so, but this rule more often than not remains unobserved. There is thus no measure to gauge these population movements.

The preliminary results of the 1946 Government Census gave the population of Orlando as 52,066. The actual population, however, was officially considered by the Department to be much higher as many persons may have avoided enumeration. Shortly after the Municipality carried out its own census, which returned a population of 65,670.

The estimated population of Orlando at the 30th June, 1948, as given in the Manager, Non-European Affairs Department's Report, was 97,155. This figure was based on the assumption that 70% of the households contained families other than the tenant and that all families, both tenant and other families, had an average of five persons per family. On the basis 70% of the households of Orlando are assumed to have a density of 10 persons per household.

The/...

The Survey revealed the average density per household to be $5.38 \pm .44$ (1% level) and further that only 34% (P) of the households of Orlando contain "other" families and that certainly not more than 43% (CL) (or less than 27%) did so. It would thus appear that this estimate is on the high side and relates rather to the potential population of Orlando, were all persons presently living in Orlando to have their dependants living with them.

The sample investigation revealed the total number of persons who were permanently domiciled in Orlando at the time of investigation to be as follows:-

P.	...	...	63,400
LL.	...	...	52,600 - 74,200
CL.	...	...	48,500 - 77,300

Since the estimated figures given in the Manager's Report relate to the date 30th June, 1948, when 294 additional houses had been occupied in Orlando, it is interesting to compute, on the Survey results, what the population of Orlando was at that date.

The average number of persons per household was found to be $5.38 \pm .33$ (taking a 5% risk of error). Working on this figure the population of Orlando at 30th June, 1948, including the 294 houses can be estimated to be :-

P	...	...	65,000
LL.	...	...	53,950 - 76,050
CL	...	...	50,700 - 79,300

It/...

It is found that a considerable number of households have fluctuating members who considered Orlando as their home but who were temporarily away. These consisted of children away at Boarding School and persons in domestic service in Johannesburg. The domestic servant population is known to be of a very mobile nature and most domestic servants, although sleeping on their employers premises find it essential to have a "pied a terre" in one of the townships.

It was further found that a significant number of persons who, being the tenants immediate dependants, had a direct claim to the house in Orlando, were living away from Orlando. The probable population of Orlando, were these persons to avail themselves of their right to reside in Orlando, has thus been computed.

Finally an estimate of what the population of Orlando would be should all the dependants of persons residing in Orlando join them has been arrived at.

The following table gives these three additional estimates, but it must be noted that no margins of approximation have been computed for them and that they must be regarded only as very rough approximations of potential, if theoretical situations.

TABLE/...

TABLE II (1)

ESTIMATED POPULATION OF ORLANDO.

<u>Persons Included.</u>	<u>Probable Av. No. of Persons per Household.</u>	<u>Probable Pop. 31.1.48.</u>	<u>Probable Pop. 30.6.48.</u>
D.S. + children at Boarding School	5.6	67,750	69,400
Tenants Dependants	6.8	80,700	82,700
All dependants	7.2	85,300	87,450

The Tribal Structure of the Population of Orlando.

Before going into the more strictly demographic aspects of the Orlando population, its tribal structure will be examined.

TABLE II/...

TABLE II (2)

TRIBAL STRUCTURE OF ORLANDO.

Tribe	Number of persons in percentages		
	P.	LL.	C.L.
S. Sotho	28	25 - 30	24 - 31
N. Sotho	4	3 - 5	3 - 6
Tswana	8	6 - 9	7 - 10
Zulu	33	30 - 36	29 - 37
Xosa	14	12 - 16	11 - 16
Swazi	5	4 - 6	3 - 7
Venda and Shangaan	5	4 - 6	3 - 7
Foreigners and Coloureds	4	3 - 5	3 - 6
ALL TRIBES	100	100	100

It thus appears that the Zulu tribe predominates in Orlando, there being no less than 29% of the entire population Zulu and a possible percentage of as high as 37% (taking 1% risk of error), the most probable figure being 33%.

The/...

The Sotho group are next in number comprising 28% (P) of the Orlando population, the true figure lying between 24% and 31% (1% risk of error).

Few foreigners are found in Orlando as is also the case with Coloureds and Northern Sothos.

TABLE III (3)

AGE DISTRIBUTION OF THE TRIBES IN ORLANDO.

Tribe	No. of Persons in Percentages.								
	Under 15.			15 - 59			60 plus		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
S. Sotho	35	30-40	28-42	61	56-66	54-68	4	2-6	1-7
N. Sotho	40	26-54	22-58	50	36-64	32-58	10	2-18	0-21
Tswana	37	27-47	24-50	57	47-67	47-70	5	1-10	0-11
Zulu	34	29-38	28-40	60	55-65	54-66	5	3-7	2-8
Xosa	36	29-43	24-46	60	53-67	50-70	4	1-7	0-8
Swazi	24	14-34	10-38	68	57-80	53-83	8	1-15	0-17
Venda and Shangani	36	24-48	21-51	63	53-73	49-77	0	0-8	0-10
Foreigners and Coloureds	42	28-56	23-60	54	40-68	36-72	4	0-10	0-11
ALL TRIBES	35	21-40	29-41	60	57-63	56-64	5	0-10	0-12

From/...

From the above table we can conclude that the ages amongst the various tribes in Orlando show very similar distributions.

It is often stated that with the mingling of tribal groups in the urban areas leads to the abandonment of the tribal language. Investigations were made as to the language spoken in the home and it has been related to the tribe of the head of the household.

TABLE II (4).

THE DISTRIBUTION OF LANGUAGE AMONGST PERSONS IN ORLANDO ACCORDING TO TRIBE.

LANGUAGE	Tribe.											
	Sotho			Nguni			Other			All Tribes		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
Sotho	90	86-93	85-94	5	4-7	3-8	15	9-23	7-26	39	36-42	35-43
Nguni	4	3-7	2-8	88	86-90	85-93	23	16-32	13-35	49	46-52	45-53
Bantu (Mixed)	6	4-8	3-9	4	3-7	2-8	22	14-32	12-34	7	6-8	5-10
Other	0	0-1	0-2	2	1-3	1-3	40	30-50	28-53	5	4-6	4-7
All Languages	100	100	100	100	100	100	100	100	100	100	100	100

This table seems to indicate that slightly more Sothos retain their home language than Ngunis. The "width" of the margins make any conclusive evidence however impossible.

Of the "other" tribes, i.e., Shangaan, Venda, Foreigners and Coloureds, less than half speak other languages 40% (P) 22% (P) speak mixed Bantu and 23% (P) and 15% (P) speak Nguni and Sotho respectively. It thus appears that persons of "other" tribes more often speak Zulu than Sotho.

It would further appear that slightly more Sotho speak mixed Bantu languages than Zulus, but again the width of the margins of approximation make it impossible to state this as a fact.

The Sex and Age Composition of the Population of Orlando.

The urban areas are notorious for their preponderance of Bantu males over females.

"The totally abnormal sex distribution of Africans living in certain areas is of tremendous social and demographic significance. The Bantu rate of masculinity was 218.2 in towns and only 86.4 in the rural areas. In other words to each two Bantu women living in urban areas there were not less than 218.2 males

"Needless to say this preponderance of males in urban areas does not augur well for the family life of the Bantu. Ultimately it must also affect the demographic situation directly by lowering fertility and indirectly, by disintegrating the Bantu family". (2)

(2) Dr.H. Sonnabend - Race Relations Handbook Chapter I: Population (P.15).

The establishment at the locations where a man could live with his wife and family sought to reduce this evil factor. To what extent the locations are achieving this by housing families or failing to do so by merely providing more accommodation to be let out to single males, is still a matter of contention.

The following was the sex ratio of males and females in Orlando as revealed in the sample investigations:-

				<u>Males.</u>	<u>Females.</u>
P	...	...	...	52%	47%
L.L.	...	...	...	50 - 54	45 - 49
G.L.	...	...	...	48 - 56	43 - 51

There seems to be only a slight probable preponderance of males over females in Orlando.

The age composition of the population is of further importance. It gives an indication of past and future population trends; of birth rate and death rate, and of the available labour resources. The age distribution of a normal population takes the form of a triangle with the lower ages forming the base and the older age groups the peak. Such as population exhibits a normal demographic equilibrium.

The following table gives the age distribution of Orlando together with the age distribution of the entire Native population according to the 1946 census.

TABLE II/...

TABLE II (5)

AGE COMPOSITION (a) OF ORLANDO POPULATION, 1948.
(b) NATIVE POPULATION OF SOUTH AFRICA - 1936 CENSUS.

Number of Persons in Percentages.				
Age.	Orlando			South Africa
	P.	L.L.	C.L.	1936 Census
0 - 4	13	12 - 15	11 - 16	14.44
5 - 9	11	10 - 13	9 - 14	13.89
10 - 14	10	9 - 12	8 - 13	12.22
15 - 19	8	6 - 9	6 - 10	10.06
20 - 24	9	7 - 11	9 - 11	8.39
25 - 29	8	7 - 10	6 - 10	8.27
30 - 34	8	7 - 10	6 - 11	7.19
35 - 39	8	7 - 10	6 - 10	6.18
40 - 44	8	7 - 10	6 - 10	5.01
45 - 49	6	4 - 7	4 - 8	3.65
50 - 59	5	4 - 7	4 - 7	3.07
60 plus	5	4 - 6	3 - 6	7.63
All ages	100	100	100	100

A comparison of the Orlando population with that of the Native population of South Africa in 1936, indicates that the Orlando age pyramid is narrower at the base and broader in the middle than that of the 1936 Native population.

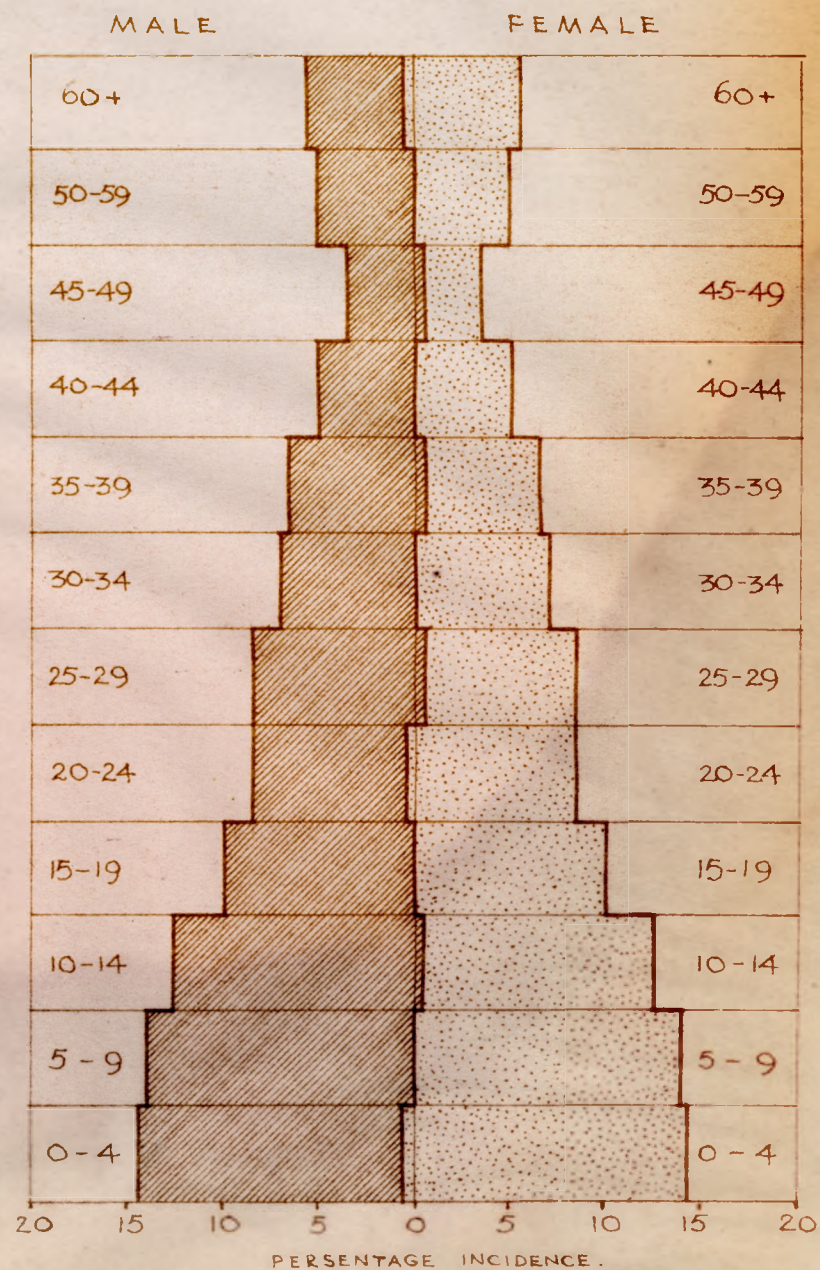
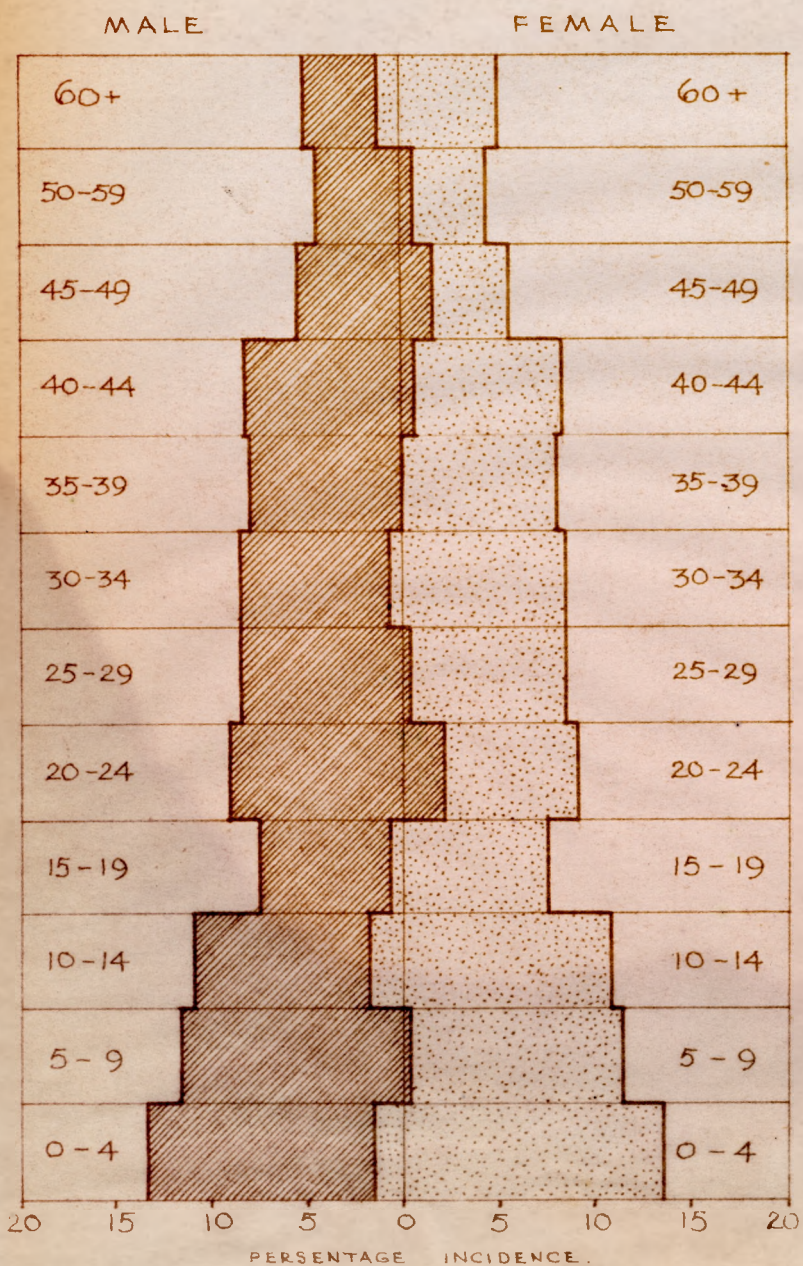
There are, therefore, proportionately less young children and more adults in Orlando than in the entire Native population (1936). The whole population returns approximately 40% of its persons as being under 15 years of age, whilst in Orlando we find only 34% (P) under 15 years of age. This is, however, still higher than the percentage in the European population, which was 31.15% in 1936.

The age group 15-19 seems to show a slight fall in number and the age group immediately above 20-24, a slightly abnormal increase.

Again the age group 60 plus is higher for the entire population (1936) than that for Orlando (1948).

Let us further examine the sex and age composition of Orlando as compared with the 1936 Native population in South Africa.

THE/...



THE AGE AND SEX COMPOSITION
OF THE ORLANDO POPULATION
1948

THE AGE AND SEX COMPOSITION OF
THE NATIVE POPULATION OF S.AFRICA
1936 CENSUS.

TABLE II (6)

THE AGE COMPOSITION OF MALES : (a) IN ORLANDO (1948)
(b) OF THE NATIVE POPULATION OF
SOUTH AFRICA (1936) - CENSUS).

Age	Orlando			S.A. 1936 Census
	No. of Males in Percentages			
	P.	LL.	CL.	
0- 4	12-	9-14	9-15	13.75
5- 9	12	9-14	9-15	13.87
10-14	9	6-11	6-11	12.69
15-19	7	5- 9	5-10	10.38
20-24	11	8-13	8-14	8.16
25-29	9	6-11	6-11	8.81
30-34	8	6-10	5-11	7.15
35-39	8	6-10	5-11	6.59
40-44	9	7-12	6-12	4.99
45-49	7	5-10	5-10	3.89
50-59	5	3- 6	2- 7	4.81
60 plus	4	2- 5	2- 5	4.91
All ages	100	100	100	100

TABLE II (7)

THE AGE COMPOSITION OF FEMALES (a) IN ORLANDO
(b) OR IN SOUTH AFRICA (1936 CENSUS).

Age	Orlando			S. A. 1936 Census
	No. of females in Percentages.			
	P.	LL.	CL	
0 - 4	15	12 - 18	11 - 19	15.15
5 - 9	11	8 - 13	7 - 14	13.92
10 - 14	13	10 - 15	9 - 16	11.74
15 - 19	8	6 - 11	5 - 11	9.75
20 - 24	7	5 - 9	4 - 9	8.64
25 - 29	8	5 - 8	4 - 10	7.73
30 - 34	9	7 - 12	6 - 12	7.23
35 - 39	8	6 - 11	6 - 11	5.77
40 - 44	7	5 - 9	4 - 10	5.04
45 - 49	4	2 - 5	2 - 6	3.43
50 - 59	4	3 - 6	2 - 7	5.38
60 plus	6	4 - 8	3 - 9	6.22
All ages	100	100	100	100

Whereas/...

Whereas, the age distribution of the South African female population decreases steadily from 15% in the age group 0-4 to plus-minus 3% in the age group 45-49, then increases again to 6% in group 60 plus, the female age distribution of Orlando behaves in an irregular fashion in the middle age groups. Falling more rapidly than the 1936 population from 15% in the age group 0-4 to the low figure of 7% (P) in the age group 20-24, it then rises in the next two groups and falls again in the age group 35-39 then decreases rapidly to 4% (P) for both groups 45-49 and 50-59. The age group 60 plus displays the same percentage as that for the whole population.

Comparing the male and female population of Orlando we find that:-

- (1) Whereas 39% of the females were below 15 years of age, only 33% of the males were under 15 years of age.
- (2) Whereas 57% (P) of the males fell in the ages 20-59 only 47% (P) of the females were in these age groups.
- (3) Whereas only 4% (P) of the males were in the ages 60 plus, 6% (P) of the females were over 60 years of age.

It thus appears that the female population is on the one hand younger and on the other hand, older than the male population, whilst the male population is comprised mainly of persons within the earning age group.

Of demographic value is the distribution of females in the pre-reproductive ages, the reproductive ages and the post-reproductive ages.

This/...

This analysis for the Orlando population is given in the following table:

TABLE II (8).

AGE ANALYSIS OF THE FEMALE POPULATION

(a) ORLANDO, ACCORDING TO REPRODUCTIVE CAPACITY.

(b) NATIVE POPULATION OF SOUTH AFRICA, ACCORDING TO REPRODUCTIVE CAPACITY.

Age	No. of females in percentages.			
	Orlando			1936 Census
	P.	WW.	CW.	
0-14 (Ante-reproductive)	38	36-42	35-43	40.83
15-44 (Reproductive)	47	43-49	42-50	44.18
45 plus (Post-reproductive)	14	12-16	11-17	14.99

This indicates that a large proportion of the women in Orlando are in the reproductive age groups, this figure probably exceeding the proportion for the whole population (1936). This may possibly support the contention that women in the urban areas are largely wives who had come to join their husbands.

The/...

The Marital Status of the Population of Orlando.

Of direct bearing on the growth of the population is the marital status of its components.

TABLE II (9)

MARITAL STATUS BY AGE OF THE MALE POPULATION OF ORLANDO.

Age	MALES AS PERCENTAGES OF AGE GROUP											
	NEVER MARRIED			MARRIED			WIDOWED	DESERTED	DIVORCED	UNKNOWN		
	P.	LL.	CL.	P.	LL.	CL.	P	LL.	CL.	P.	LL.	CL.
Under 15	100	-	-	-	-	-	-	-	-	-	-	-
16 - 19	97	92-100	90-100	3	0- 8	0-10	-	-	-	-	-	-
20-24	90	83-97	81-99	10	3-17	1-19	-	-	-	-	-	-
25-29	58	45-71	41-75	38	36-40	21-55	4	0- 8	0-10	-	-	-
30-34	29	16-41	13-44	69	58-81	51-85	3	0- 6	0- 7	-	-	-
35-39	8	0-15	0-17	74	62-86	58-80	19	8-29	5-33	-	-	-
40-44	3	0- 8	0- 9	78	68-89	65-92	17	7-26	4-29	2	0- 5	0- 6
45-49	2	0- 6	0- 7	79	60-86	56-90	25	13-37	9-41	-	-	-
50-59	3	0-10	0-12	67	50-84	45-89	30	14-46	8-52	-	-	-
60 +	-	-	-	65	46-85	40-91	9	0-20	0-24	26	8-44	3-20
TOTAL	58	55-62	53-63	34	30-37	29-38	8	6-10	6-11	0	0- 1	0- 1

TABLE II (10)/...

TABLE II (10).

MARITAL STATUS BY AGE OF THE FEMALE POPULATION OF ORLANDO.

	FEMALES			IN			PERCENTAGES					
	NEVER MARRIED			MARRIED			WIDOWED			DESERTED DIVORCED UNKNOWN		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
15 and under	100	-	-	-	-	-	-	-	-	-	-	-
16-19	74	61-88	56-92	26	12-49	8-44	-	-	-	-	-	-
20-24	28	14-41	10-46	70	56-84	51-89	3	0-7	0-9	-	-	-
25-29	16	5-26	3-30	78	66-90	62-94	7	0-14	0-16	-	-	-
30-34	6	0-12	0-14	82	71-92	68-95	13	4-22	1-25	-	-	-
35-39	6	0-13	0-15	72	60-85	56-88	22	9-37	7-37	-	-	-
40-44	2	0-7	0-9	71	57-85	52-89	27	13-40	9-45	-	-	-
45-49	5	0-13	0-16	59	39-80	32-86	36	16-57	10-62	-	-	-
50-59	15	2-19	0-34	15	2-19	0-34	65	47-84	41-90	3	0-11	0-14
60+	-	-	-	-	-	-	17	5-29	1-32	83	71-96	67-99
ALL AGES	54	50-58	48-59	35	31-39	30-40	12	9-14	8-15	0	0-0	0-3

Comparing Table II (8) with the above Table, we find that:-

- (1) Females marry earlier than males there being a probable figure of 26% of the females 15-19 marry whilst only 3% (P) of the males in this age group are married. Again whilst 70% (P) or from 51-89% (1% level) of the females 20-24 years old are married, only 10% (P) or 1-19% (1% level) of the males 20-24 appear to be married.
- (11) As can be expected the incidence of marriage rises with age, then drops again in the higher age groups due to the deaths or disappearance of one of the spouses. The incidence of marriage amongst the male population rises steadily with age reaching a

a/...

a maximum incidence of 78% (P) and 79% (P) in the age group 40-44 and 45-49 respectively. (1) then probably drop in the next two age groups. (2)

The incidence of marriage amongst the female population displays a different trend.

Rising rapidly in the lower age groups to a maximum incidence of 82% (P) in the age groups 30-34 (68-98% at the 1% level), it displays a probable decline as early as the age group 35-39. This decline steadily continues until it reaches the group 50-59 when it displays a probable incidence of married persons of only 15% (0-34% 1% level). This is considerably different to the incidence amongst males 50-59 which is still 67% (P) or 45-89% (LL.). We can thus conclude that the bulk of the married women in Orlando are to be found in the lower age groups, whilst the bulk of married men in Orlando are found in the higher age groups.

(111) Comparing the males and females in the categories) widowed, deserted, divorced, we find that:-

- (a) There is a greater proportion of widowed, deserted and divorced in the female population than in the male population of Orlando.
- (b) In both cases, the trend rises with age but drops again in the age group 60 plus.
- (c) Whilst the female age group 50-59 displayed an incidence of 65% (P) widowed, deserted, divorced the male age group 50-59 only displays an incidence of 30% (P).

The distribution of single, married, widowed, deserted, divorced, persons for all ages is fairly similar. The males have a higher incidence in the "single" category than the females, and a lower incidence of widowed, deserted, divorced, than the females. The incidence of married persons is similar, being not less than 30% and not more than 40% for the females and not less than 29% and not more than 38% for the males (taking a 1% risk of error).

It thus appears that roughly a third of the Orlando population has a marital status which would ensure reproduction and population growth.

-
- (1) Whilst the age group 45-49 shows the highest probable incidence of marriage of any age group, its limits are wider than those of the age group 40-44 and it is quite possible that the maximum incidence occurs in this age group.
 - (2) The width of the limits for these two age groups again make it impossible to state that in fact this is the case.

Migration.

One of the most immediate factors influencing the population of Orlando are the migrations in and out of the township. These effect their degree of urbanisation, their habits and the whole structure of their community.

In the following tables we will try to sketch briefly the migrations of members of the Orlando households from the observations of the sample households; where they came from originally; how long they have been in Johannesburg; the date they entered their present abode; where they lived prior to coming to it; how many households have fluctuating members. We will then examine how these fluctuating members are distributed amongst the types of households and types of families and size of household. Finally we will see where the fluctuating members are domiciled and try to postulate the probable reason for the observed trends.

The information on which the following tables are based is derived only from the head and wife of the tenant family and from all other adult persons within the household not belonging to the tenant family. Dependants, including those dependent by Native custom have not been included.

TABLE /

TABLE II (11)

Geographical Distribution of Birth-Places.

Birthplace	Percentage Incidence.		
	P.	LL.	CL.
Johannesburg	3	2 - 5	2 - 5
Transvaal other than Johannesburg	21	17 - 24	18 - 25
Natal	22	19 - 26	18 - 27
Orange Free State	22	19 - 26	18 - 27
Cape Province	14	12 - 17	11 - 18
Protectorates (1)	14	12 - 17	11 - 18
Outside Union of South Africa	3	2 - 5	2 - 5
<u>TOTAL:</u>	100	100	100

It appears from the above table that the Transvaal, Natal and Orange Free State make an equal contribution to the population of Orlando, which together comprises approximately two-thirds of the population.

Relatively few seem to have come from the Protectorates (14% (P)), the same proportion having probably come from the Cape Province. Not more than 5% and not less than 2% (LL.) have come from outside the Union and equally few have been born in Johannesburg. It must be borne in mind that these figures do not apply to the entire population but only to adults who are heads or wives of families and to independent sub-tenants. Were the tenants dependants and children to be included the number of persons born in Johannesburg would no doubt increase considerably.

(1) Protectorates include Basutoland,
Bechuanaland and Swaziland.

TABLE II (12)
Geographical Distribution of Birthplace
by Sex.

Birthplace	Percentage Incidence.					
	Males			Females		
	P.	II.	CL.	P.	II.	CL.
Johannesburg.	3	2 - 6	1 - 6	5	2 - 7	1 - 8
Transvaal, other than Johannesburg.	20	15 - 26	14 - 27	21	16 - 25	14 - 27
Natal	24	19 - 28	18 - 30	20	15 - 25	14 - 27
Orange Free State	21	16 - 25	15 - 27	24	19 - 29	17 - 31
Cape Province	14	10 - 18	9 - 19	15	11 - 19	10 - 20
Protectorates	14	10 - 18	9 - 19	14	10 - 19	9 - 20
Outside the Union of South Africa	5	3 - 7	2 - 9	1	0 - 3	0 - 4
TOTAL:	100	100	100	100	100	100

From the above table we gather that :

- (1) The geographical distribution of birthplaces amongst males and females is very similar there being no outstanding differences.
- (2) There are more males born outside the Union than females. Both are a small proportion of the population.
- (3) The proportion of males from Natal slightly exceeds that of females; the percentage being 19 - 28% for the males and 16 - 25% for the females (taking a 5% risk of error).
- (4) The incidence of males and females from the Protectorates, Transvaal and the Cape Province is similar.

TABLE /

TABLE II (13)

Geographical Distribution of Birthplace by Age.

Birthplace	Percentage Incidence Amongst Age Groups.														
	15 - 24			25 - 34			35 - 44			45 - 59			60 +		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
Johannesburg	9	4-11	3-19	4	4-9	2-10	3	2-7	1-7	0	0-4	0-5	0	0-10	0-15
Transvaal other than Johannes- burg.	25	17-35	15-37	17	12-23	10-27	20	15-26	14-27	22	14-31	12-34	21	10-37	7-43
Natal.	20	13-30	10-32	29	22-38	20-40	20	15-26	14-27	19	11-28	10-30	18	7-34	5-40
Orange Free State.	20	13-30	10-32	21	15-29	13-31	23	18-30	16-31	27	19-36	16-40	18	7-34	5-40
Cape Province	10	5-17	3-19	14	9-20	7-22	13	9-18	8-19	19	11-28	10-30	21	10-37	7-43
Protectorates	12	7-20	5-22	14	9-20	7-22	17	12-22	11-24	10	5-17	3-19	18	7-34	5-40
Outside Union of South Africa.	4	1-10	1-11	2	1-6	0-7	4	2-7	2-8	3	0-9	1-11	5	0-18	0-22
TOTAL:	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Taking into consideration age as well as birthplace, it appears that in the lower age group 15 - 24 the majority of persons come from the Transvaal, i.e. 1 in 4. About 1 in 5 of the persons in this age group come from the Natal and the Orange Free State and only 12% (P) from the Protectorates.

Of the persons 25 - 34, a good majority 29% (P) come from Natal whilst in the age groups 35 - 44 and 45 - 59 the majority seem to come from the Orange Free State. In the age group 60 + we find a fairly even geographical distribution of birthplaces, with the

the Transvaal and Orange Free State showing a slight predominance. As many as 5% (P) of the persons 60 plus were born outside the Union. This age group also shows a comparatively high percentage of persons from the Protectorates. Since information from the dependant parents over 60 was not obtained for this table this cannot be attributed to the fact that old persons come to the towns to be protected by their children but would rather indicate either that in past years the influx of persons from the Protectorates was higher than in latter years, or, that old persons from the Protectorates come to Orlando more readily than the young persons. The first contention is possibly a more probable one.

Of interest is the fact that whilst probably more than 1 in 5 of the persons 60 + came from the Cape, only 1 in 10 of the persons aged 15 - 24 came from the Cape.*

In order to determine whether the trends observed in table 3 are due to influences taking place from specific areas at different times or to the fact that persons from certain areas of a certain age are attracted to the City, it is necessary to consider the date of entry into Johannesburg. This unfortunately has not been done according to place of birth but Table II (14) indicates the number of years in Johannesburg of adult persons in Orlando according to the age groups to which they belong.

* This decrease suggests that the influx from this area is falling off possibly as a result of the increasing industrial and urban development of places such as Cape Town and Port Elizabeth which are drawing labour from their nearest native area.

TABLE II (14)

Length of Residence in Johannesburg of Adults in Orlando
according to Age.

No. of Years in Johannes- burg.	Percentage Incidence in the Age Groups														
	<u>15-29</u>			<u>30-39</u>			<u>40-49</u>			<u>50-59</u>			<u>60+</u>		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
1 and under	21	14-29	12-32	7	4-11	3-12	3	1-6	0-8	2	0-7	0-10	7	2-19	1-23
2 - 4	19	13-27	10-29	2	1-4	1-5	5	2-10	1-12	4	1-13	0-16	2	0-7	0-10
5 - 9	26	19-34	17-37	20	15-26	14-27	8	4-14	3-17	9	3-20	2-24	7	2-19	1-23
10 - 14	14	9-21	8-23	33	28-39	25-41	28	19-38	17-40	9	3-20	2-24	14	6-26	4-31
15 - 19	4	2-9	2-11	16	12-21	11-23	13	7-21	6-23	11	4-22	3-27	14	6-26	4-31
20 - 24	5	2-10	1-12	10	7-14	6-16	22	14-32	12-34	20	10-34	7-38	7	2-19	1-23
25 - 29	4	2-9	2-11	2	1-5	1-6	8	4-14	3-17	11	4-22	3-27	2	0-7	0-10
30 - 39	0	0-3	0-4	3	2-6	2-6	5	2-10	1-12	27	15-31	13-46	22	12-36	9-41
40 +	0	0-3	0-4	0	0-2	0-3	3	1-6	0-8	2	0-7	0-10	19	9-33	7-36
Unknown	6	3-11	2-12	7	4-11	3-12	5	2-10	1-12	4	1-13	0-16	5	1-15	0-18
<u>TOTAL:</u>	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

From the above table it would appear that :-

- (1) Of the total population nearly 1 in 4 of the persons have been in Johannesburg from 10 - 24 years.
- (2) Only 33% (P) of the total number of persons in Orlando have been in Johannesburg less than 10 yrs; 49% (P) have been in Johannesburg from 10 - 24 years and only 13% have been in Johannesburg 25 years and more. Since the age composition of the population is likely to have a direct bearing on the length of their residence in Johannesburg we shall examine each age group.

In the age group 15 - 29 we find that the bulk of the persons have been in Johannesburg from 5 to 9 years and by far the majority have been in Johannesburg less than 10 years. This would /

would seem to indicate that persons come to Johannesburg during the age period when they can begin to be gainfully employed. Only 9% (P) have been in Johannesburg more than 20 years which would indicate that a very small number have been born in Johannesburg - it must again be remembered that children have not been dealt with.

In the age group 30 - 39 probably 1 in 3 persons have been in Johannesburg 10 to 14 years, which would seem to indicate the same tendency as in the previous age group.

Of interest is the fact that in the age groups 40 - 49 the bulk occurs in the period 10 - 14

Since the margins of approximation are wide and a good number appear to have been in Johannesburg 20 to 24 years it is not wise to speculate on this point.

The age groups 50 to 59 and 60 + both reveal the bulk of persons to have been in Johannesburg 30 - 39 years. 60% (P) of the persons 50 - 59 have been in Johannesburg 20 years and over and 50% (P) of the persons 60 + appear to have been in Johannesburg over 20 years. This may indicate a slight tendency for the older generation (60 +) to have come to Johannesburg at a later age than their immediate successors. Similarly, there seems to be an indication that the older generation (50 +) came to Johannesburg at a later age than the younger generation (15 - 19).

If only tenant heads are taken and not the whole adult population, the following results are obtained :

TABLE II (15).

LENGTH OF RESIDENCE IN JOHANNESBURG OF ALL TENANT HEADS
ACCORDING TO AGE.

No. of Years in Johannes- burg.	Age of Person											
	15 - 34			35 - 49			50+			Total		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
0 - 3	0	0 -12	0 -16	0	0- 4	0-5	0 0	0-8	0-10	0	0-12	0- 2
3 - 9	36	19 -56	16-61	4	2-10	1-12	10	3-22	2-25	10	7-15	6-16
10 - 14	39	22-59	18-64	31	21-41	20-44	10	3-22	2-25	26	21-32	20-34
15 - 24	12	3-30	2-35	50	40-60	37-63	27	15-41	9-46	38	32-44	30-46
25-34	10	2-27	1-32	10	5-17	4-20	33	21-47	17-52	17	13-22	11-24
35-50	0	0-12	0-16	2	0-6	0- 8	19	9-33	7-36	7	4-12	3-12
Unknown	3	0-16	0-22	3	1-8	1-11	2	0-10	0-15	3	1-6	1-7
Total:	100	100	100	100	100	100	100	100	100	100	100	100

From the above table it appears that 38% (P) of the tenant heads have been in Johannesburg from 15 - 24 years. Only 38% (P) have been in Johannesburg less than 15 years whilst 62% (P) have been in Johannesburg more than 15 years.

Of the total population it was seen that only 25% (P) have been in Johannesburg 15 - 24 years . 57% (P) have been in Johannesburg less than 15 years and 38% (P) have been in Johannesburg more than 15 years.

One could then conclude that the tenant heads are urbanised persons of longer standing than generally, other persons in Orlando.

TABLE II (16)

Date of Entry into Present dwelling of Adults in Orlando.

<u>Date of Entry</u>	<u>Percentage Incidence</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
1932 - 1936	5	5 - 6	5 - 6
1937	9	6 - 11	6 - 12
1938	6	4 - 8	4 - 9
1939	3	2 - 4	2 - 5
1940	2	0 - 3	0 - 3
1941	5	3 - 7	3 - 7
1942	4	3 - 6	2 - 6
1943	1	0 - 2	0 - 2
1944	1	0 - 2	0 - 2
1945	23	20 - 26	19 - 27
1946	10	8 - 12	7 - 15
1947	14	11 - 17	10 - 18
1948	14	11 - 17	10 - 18
Unknown	5	2 - 4	2 - 5
<u>ALL YEARS :</u>	100	100	100

Orlando was opened in 1932. Yet we find that of the present persons in Orlando only 5% (P) and not more than 6% (LL) came to Orlando between 1932 and 1936. This may be due to two factors :-

(1) That persons who obtained houses in the period 1932 - 1936 have left their original house in Orlando and the houses have been re-allocated since, or -

(2) That not many persons came to Orlando in the period 1932 - 1936.

Since the table information was obtained not only from the tenants but from all married or independent persons (excluding the tenant's own children) the first reason would not cover the whole question. It would seem to be more probable that the second reason

is probably the correct or more important one, for persons themselves recount that in the beginning Orlando was not popular - chiefly because of its distance from the City. This cannot, however, be established without more knowledge and further investigation.

1937 shows a relatively high incidence of entries. This can be chiefly attributed to the abolishment in 1937 of Prospect Township and the Malay quarter in Vrededorp.

The war years exhibit a low incidence of entries especially marked in 1943 and 1944. This would correspond with a hold-up in building operations due to shortage of building material.

The years 1945 and 1946 show a very marked increase, nearly a third of the persons entering their present abode in Orlando during those two years. These dates correspond both to the period when building operations were resumed and the establishment of the temporary breeze block shelters in 1945.

1947 and 1948 each contribute 14% (P) of the entries - during this period Orlando West II was being developed and persons were moving into the new houses.

In considering this table it must be remembered that it not only refers to persons who have obtained houses but also to persons living with others in the township. The entries into the present dwellings therefore, do not correspond directly with the influx into the township but also include internal movements.

The following tables dealing with the same group of persons show us the previous

residence /

residence of these persons, according to the three main sections of Orlando in which they live.

TABLE II (17)

Previous Residence of Persons living in the Shelters.

<u>Area.</u>	<u>Percentage Incidence</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
Shanty-Town and previously Orlando	41	34 - 47	33 - 50
Shanty-Town and previously other areas Johannesburg.	34	28 - 41	26 - 43
Shanty-Town and previously areas outside Johannesburg	20	15 - 26	14 - 27
Unknown	5	3 - 8	2 - 10
<u>TOTAL:</u>	100	100	100

We therefore conclude that :-

- (1) Almost all persons in the shelters are persons who previously were in Shanty-Town.
- (2) That 41% (P) and as many as 50% and not less than 30% (CL) of the persons in the shelters lived in Orlando before going to Shanty-Town. The main reason given for the 1944 squatter movement was the large number of families living in Orlando who did not have houses but lived with other families - the so-called "sub-tenants." The proportion obtained from the sample investigation would indeed support the truth of this allocation.
- (3) We find that as many as 34% (P) of the persons in the Shelters had come to Shanty-Town from the areas in Johannesburg other than Orlando. This would again verify the suspicion that the squatter movement was joined by other persons in Johannesburg who had no houses of their own and who were led to believe that they would in this manner obtain a house more readily.
- (4) We find that 22% (P) and not less than 14% (LL) of the persons in the Shelters came to Shanty-Town from areas outside Johannesburg. At the time of the squatter movement the numbers that were infiltrating from outside areas were a matter of contention. This would seem to indicate

that /

that a certain number who had not previously lived in Johannesburg, did come to Shanty-Town and then obtained shelters, but that this number is probably not overwhelmingly large.

TABLE II (18)

Previous Residence of Persons Living in Orlando East.

<u>Area</u>	<u>Percentage Incidence</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
Johannesburg	62	54 - 68	55 - 70
Areas outside Johannesburg	28	23 - 35	21 - 37
Orlando Shelters	7	5 - 16	3 - 17
Unknown	3	2 - 5	1 - 8
<u>TOTAL:</u>	100	100	100

Nearly two-thirds of the persons living in Orlando East came from other areas in Johannesburg whilst only 28% (P) came directly to Orlando East from areas outside Johannesburg. This would seem to indicate that in Orlando East we are dealing with a population which has attained a fairly high degree of urbanisation. We find that 7% (P) of the persons in Orlando East have come from the shelters. These may have been persons who were on the waiting list for a house and whose turn it was to obtain a house, but more often than not, they are persons who have taken over the houses of friends or relatives who have left the township, died, etc. They often go on paying rent in the ex-tenant's name whilst becoming for our purposes the tenants of the house. There are also a number, who finding the conditions in the shelters intolerable, have returned to live with relatives or as sub-tenants in friends' houses.

TABLE II (19)

Previous Residence of Persons Living in Orlando West.

<u>Area</u>	<u>Percentage Incidence.</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
Orlando East	31	22 - 41	19 - 44
Other areas Johannesburg	23	15 - 32	12 - 38
Areas outside Johannesburg	29	21 - 39	18 - 42
Shelters	15	8 - 24	7 - 26
Unknown	3	2 - 6	1 - 9
<u>TOTAL:</u>	100	100	100

The width of the margins of approximation warn us to be wary in considering these persons. It would appear, however, that a good proportion in Orlando West previously lived in Orlando East. When the houses in Orlando West were first built many tenants of Orlando East who had been asking for bigger houses or more amenities were moved across. This is no longer however extensively done.

Approximately the same proportion came to Orlando West from areas outside Johannesburg as came to Orlando East.

Orlando West would appear to have more persons from the Shelters than Orlando East. This is feasible since apart from persons illicitly taking over houses as in Orlando East, Orlando West has been expanding and of every 50 completed houses 10 are given to families from the shelters.

Considering the whole of Orlando, it is apparent that Orlando consists mainly of

persons /

persons who have lived in the urban areas of Johannesburg before coming to Orlando and thus the majority have had a fairly long period of contact with Western civilization.

One of the factors which complicated investigation was the mobility of the Orlando population, especially of the children, and to a lesser degree of wives.

Of all the dependant children aged 20 and under of tenants in Orlando it was found that:-

31% P were living away from home.

25-38% LL. -do-

24-39% CL. -do-

Their domiciles are analysed in the following table:-

TABLE II (20)/...

Dependant children of all ages except 0-4 seem to be sent most often to their paternal relatives. Children below 5 are probably most often found at home on plots of ground, farms or Reserved areas. The incidence of children domiciled there decreases with age.

On the other hand the incidence of children domiciled with maternal relatives increases with age up to the age group 15-20 when it drops considerably.

In the age group 15-20 probably one in five of the children under 20 are in employment where they reside, but still come home at times.

From the last table it appears that the tribal custom of sending the children to their paternal relatives is still adhered to, though the large proportion of children are sent to their maternal relatives. This seems to indicate that tribal custom is not the sole reason for sending children away from home but that other reasons make it compulsory to do so.

Reasons given by parents are that their houses are too small; that other persons who must earn take up the room and that they cannot bring their children up in the location environment, where they learn all kinds of vices, become uncontrollable and turn out to be "Ntsotsies". This last reason was the one most commonly given. Furthermore we find that where the family own a plot of land, or has still allegiance to the reserves or the farms, the wife goes home to plough, to confine and/or to show her new baby to the grandparents. On such occasions the

younger/...

younger children go with her and this explains the large number of children 0-4 years of age found in this category.

Considering the number of tenants' children sent away according to the size of the household, it is found that of the households containing five or less persons)

61% (P) had children living away from Orlando.

53 - 67% (LL) -do-

50 - 70% (CL) -do-

and that of the households containing more than five -

12% (P) had children living away from Orlando.

7 - 17% (LL) -do-

6 - 18% (CL) -do-

From these figures it would thus appear that small households are often small because they have sent away children and that large households are often large because they have not sent away their children.

Of particular interest is the number of children sent away according to the composition of the household to which they belong.

TABLE II (21).

PERCENTAGE OF HOUSEHOLDS WITH CHILDREN AWAY WITHIN THE TYPES OF HOUSEHOLD.

<u>Type of Household.</u>	<u>Percentage of Households with Children Away.</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
T.N.P.	52	41 - 53	37 - 58
Ext. Fam.	43	34 - 52	30 - 57
T.N.P. & Rel. Fam.	62	46 - 74	41 - 78
T.N.P. and S/T.	59	44 - 73	36 - 76
All households	50	44 - 56	42 - 58

We therefore find that probably one in every two of all households in Orlando has dependant children who live away from home.

The households containing Relative Families have the largest probable incidence of children away from home whilst the extended family show the lowest probable incidence of such children.

The table thus seems to indicate that:-

- (1) Persons are sending children away in order to make room for relatives who come to the urban areas to seek work.
- (2) Persons who take in sub-tenants either send children away in order to do so or, finding that there is no room for the children or that sub-tenants are a bad influence on their children, they send them away. There is of course the third possibility, that the children are sent away for other reasons, i.e., tribal custom, etc., and that finding that there is room in the house sub-tenants or relatives are taken in.

(3)/...

- (3) The fact that so many households containing the Tenants' Natural Family send away children indicates that the above reasons are not the only ones.
- (4) The comparatively low incidence of children sent away from home in the Extended family may well be attributed to the fact that in households where there are old dependant parents to look after the children these are not sent away. It was found that 53% (2) of the women in Orlando are gainfully employed (see section on "Employment of Women") and since persons were continuously complaining of the fact that they could not bring up their children decently in the locations, especially as they were not often at home to keep an eye on them, this seems to be a further possible reason.

The subject of the mobility of the urban Native population is one which needs much more detailed study and an understanding of the reasons for it are likely to be of great assistance in understanding this population's needs.

(2) Many of the households which are "Extended Family" are so because of the presence of an old dependant parent.

B. - ECONOMIC CONDITIONS.

(1) Occupation and Income.

It is an indisputable fact that the dire poverty of the African is the root cause of many of our problems in South Africa.

The Bantu have come to the towns in order to earn money, so that they may survive in Western Civilisation which is based on a money economy, and which in turn demands from them money. Yet at the same time restrictive legislation (The Industrial Conciliation Act, the Pass Laws, the Wage Act) and even more effectively, the attitude and behaviour of the European population, restrict the spheres of activity in which they can participate, restrict both their earning capacity and their earnings. For a long time the attitude was that of considering the urban Native as a temporary migrant labourer -

"It should be a recognised principle of agreement that Natives - men, women and children - should only be permitted within Municipal areas in so far and for so long as their presence is demanded by the wants of the white population, and should depart therefrom when they cease to minister to the needs of the white man." (1)

As such their home was on the farms or in the reserves and since they could derive livelihood from the land, there was no need for them to earn a living wage in the urban areas. But that this was not the position sooner or later had to be

(1) Transvaal Local Government Commission 1922.

realised. Establishment of Native townships such as Orlando, within the urban areas which seek to provide for the family as a whole, tacitly acknowledged that there was an urban Native population and indeed encouraged its formation.

Out of such townships are rising a generation of young Africans who know no other life but that of the City, who have no other connections but those in the towns. They comprise a generation whose attitude and aspirations are completely different to those of their fathers and grandfathers. They have seen, since childhood, the achievements of western civilization, and they are eager to learn of them and to participate in them.

To the South African economy these persons are indispensable and it is only in so far as they are allowed to enter occupations in which their full potential powers can be utilised - it is only in so far as they are earning wages sufficiently high to ensure expenditure and the turning of the economic wheels - that South Africa is likely to develop.

Of primary importance when considering the capacity of any population to work and earn is its age and to a certain extent its sex composition.

TABLE II (22). /...

TABLE II (22).

THE AGE AND SEX COMPOSITION OF PERSONS IN ORLANDO ACCORDING TO
THEIR ECONOMIC CAPACITY.

AGE	<u>PERCENTAGE INCIDENCE.</u>								
	<u>Males</u>			<u>Females</u>			<u>Total</u>		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
0 - 14	32	29-35	28-36	38	33-44	31-46	35	32-38	31-39
15 - 29	64	61-67	60-68	56	51-61	49-64	60	57-63	56-64
60 +	4	3- 6	3- 6	6	4- 9	3-10	5	4- 6	3- 7
Total	100	100	100	100	100	100	100	100	100

The above table analyses the Orlando population according to the age group related to economic capacity. The first is the pre-earner group; the second covers the persons capable of working and earning and the third comprises the aged, no longer able to pull their weight economically.

The table shows that^{of} the males, in Orlando, a larger number fall into the economically potent group than of the females.

TABLE II (23)/...

TABLE II (23).

OCCUPATIONS OF PERSONS IN ORLANDO.

<u>OCCUPATION</u>	<u>P</u>	<u>PERCENTAGE INCIDENCE</u>	
		<u>L.L.</u>	<u>C.L.</u>
Labourers	23	21 - 26	20 - 27
Factory Workers	8	6 - 10	6 - 11
Domestic Service	6	4 - 7	3 - 8
Professional & Clerical	2	1 - 3	0 - 3
Police & Night Watchmen	2	1 - 3	0 - 3
Drivers and Transport	3	2 - 4	2 - 5
Washerwomen	11	9 - 13	8 - 14
Brewers	4	3 - 5	2 - 6
Traders (legal, illegal, venders and hawkers)	5	5 - 7	4 - 8
Craftsmen	3	2 - 4	2 - 4
Housewives	11	9 - 13	8 - 14
Not employed	17	15 - 20	14 - 21
Others	4	3 - 5	2 - 6
Unknown	0	0 - 1	0 - 1
TOTAL.	100	100	100

The figures relate to all persons 15 and over and not attending school.

Housewives and persons not employed have been kept separate. (The term "housewife" refers to any woman who is or has been married and who is not working or looking for employment.)

TABLE II (24)/...

TABLE II (2A).

OCCUPATIONS OF PERSONS IN ORLANDO ACCORDING TO AGE.

OCCUPATION	PERCENTAGE INCIDENCE IN AGE GROUPS											
	Under 29			30 - 39			40 - 49			50 - 60 +		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
Labourers ...	24	19-30	16-31	22	18-27	15-30	26	21-31	19-34	17	11-26	9-21
Factory ...	11	7-16	6-17	7	4-13	3-14	11	7-16	6-17	3	1-7	0-10
Domestic Service	6	3-10	3-11	8	5-13	4-14	3	2-6	1-7	5	2-10	2-12
Professional & Clerical	2	1-4	1-5	3	2-6	1-7	1	0-3	0-4	3	1-7	0-10
Police & Night Watchmen	0	0-2	0-2	1	0-3	0-4	5	3-8	2-10	3	1-7	0-10
Drivers - Transport	2	1-4	1-5	4	2-8	2-9	3	2-6	1-7	3	1-7	0-10
Washerwomen ...	6	3-10	3-11	14	10-19	9-20	16	12-21	11-22	7	3-13	2-16
Brewers ...	1	0-3	0-4	7	4-13	3-14	7	4-13	3-14	5	2-10	2-12
Traders & Hawkers	3	2-6	1-7	8	5-13	4-14	8	5-13	4-14	4	2-10	1-12
Craftsmen ...	1	0-3	0-4	3	2-6	1-7	4	2-8	2-9	3	1-7	0-10
Housewives ...	18	14-23	12-25	12	8-17	7-18	6	3-10	3-11	3	1-7	0-10
Not employed ...	21	16-27	15-29	9	6-14	5-15	6	3-10	3-11	40	30-50	28-53
Others	5	3-8	2-10	3	2-6	1-7	3	2-6	1-7	5	2-10	2-12
Unknown ...	0	0-2	0-2	0	0-2	0-2	0	0-2	0-2	0	0-4	0-5
TOTAL ...	100	100	100	100	100	100	100	100	100	100	100	100

From the above table we see that :-

- (1) of those employed, labourers predominate in all age groups. In the age group 50 - 60 + the actual majority of persons are "not working"; this is because many are unemployable.
- (2) Washerwomen are found mainly amongst persons aged 30-49, and the same would seem to be true of brewers, traders and hawkers.
- (3) There is a greater proportion of housewives in the lower age groups than in the higher age groups.

(14)/...

- (4) A significantly higher proportion of persons "not employed" are to be found in the age group under 30 than in the ages 30 - 39. This would seem to support the repeated references, made by persons in contact with urban Africans to the high incidence of unemployment amongst urban African youths.(2)

The next table shows occupations according to educational qualifications of persons in Orlando.

TABLE II (25).

OCCUPATION ACCORDING TO EDUCATIONAL QUALIFICATIONS.

OCCUPATION	PERCENTAGE INCIDENCE IN EDUCATIONAL GROUPS.											
	<u>Nil</u>			<u>Primary</u>			<u>Higher Education</u>			<u>(3) Unknown</u>		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
Labourers	23	18-29	16-31	20	15-26	14-27	18	8-32	6-36	38	24-53	21-57
Factory Workers	7	4-11	3-12	8	5-13	4-14	13	5-26	3-30	21	11-35	8-40
Domestic Servants	4	2- 8	2- 9	7	4-11	3-12	3	0-13	0-16	15	6-28	4-32
Professional & Clerical	0	0- 2	0- 2	1	0- 3	0- 4	18	8-32	6-36	3	0-13	0-16
Police & Nightwatchmen	-			2	1- 4	1- 5	4	1-14	0-17	0	0- 8	0-10
Drivers & Transport	2	1- 4	1- 5	4	2- 8	2- 9	4	1-14	0-17	3	0-13	0-16
Washerwomen ...	10	7-15	6-16	12	8-17	7-18	7	2-18	1-22	3	0-13	0-16
Brewers ...	8	5-13	4-14	4	2- 8	2- 9	2	0-11	0-14	0	0- 8	0-10
Traders ...	7	4-11	3-12	5	3- 8	2-10	3	0-13	0-16	3	0-13	0-16
Craftsmen ...	3	2- 7	2- 7	3	2- 7	2- 7	6	1-16	0-20	0	0- 8	0-10
Housewives ...	8	5-13	4-14	13	9-19	8-20	10	3-22	3-26	6	1-16	0-20
Not employed ...	23	18-29	16-31	16	11-21	10-22	13	5-26	3-30	9	3-21	2-25
Others ...	4	2- 8	2- 9	5	3- 8	2-10	2	0-11	0-14	0	0- 8	0-10
Unknown ...	0	0- 2	0- 2	0	0- 2	0- 2	0	0- 8	0-10	0	0- 8	0-10
TOTAL ...	100	100	100	100	100	100	100	100	100	100	100	100

We find that:-

- (1) The labourers constitute the highest number amongst all

educational/...

(2) See E. Hellman: Commission on Juvenile Delinquency.

(3) Higher education includes secondary school training and vocational training.

educational groups and this number decreases probably only slightly as education improves. Of interest is the point that the higher educational group the highest incidence occurs in the labourer class and the professional class, numbers in these classes probably being equal.

- (2) Brewers constitute 8% (P) of the persons with no education and only 2% (P) of the persons with education. One can therefore conclude that education is likely to influence persons against such illicit activity.
- (3) Of interest is the fact that the largest proportion of traders are to be found in the group of persons with no education and the lowest number in the group with higher education. Since most persons under "traders" are illegal traders, it would seem to indicate again that higher education discourages such activity. On the other hand the highest probable incidence of craftsmen is to be found amongst persons with higher education.
- (4) Persons with no education and those with higher education seem to be less often housewives than persons with primary school education.
- (5) It is significant that the highest number of persons not employed falls into the group with no education and therefore with the least capacity for employment, and that the incidence of such persons decreases as education improves. This suggests that employability improves with education. This is interesting for although the educated person may have the highest potential capacity for employment openings for them are fewer and far between. An examination of the table, however, seems to indicate that the educated person does not necessarily find employment in the more skilled occupations but when offering his services as e.g., a labourer, he is presumably more easily accepted than the unskilled person. So this would indicate not that he is correctly employed, but that he is on the whole employed.

The proportion of persons not working amongst the persons with no education is alarmingly high (23%). This figure, however, may be weighted, as the majority of persons falling into the age group 60 +, and therefore unemployable, would have no education.

TABLE II (26).

THE INCOME OF THE ORLANDO POPULATION.

<u>MONTHLY INCOME IN £.</u>	<u>PERCENTAGE INCIDENCE.</u>		
	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>
Below 1	2	1 - 4	1 - 4
1	10	7 - 12	7 - 13
2 - 4	19	16 - 23	15 - 23
5 - 9	31	27 - 35	26 - 36
10 - 14	26	22 - 29	21 - 30
15 - 19	5	3 - 6	2 - 7
20 - 24	3	2 - 5	1 - 5
25 - 29	1	0 - 2	0 - 2
30 - 39	1	0 - 2	0 - 3
40 - 99	0	0 - 1	0 - 1
100 +	0	0 - 1	0 - 1
Unknown	2	1 - 4	1 - 4
TOTAL	100	100	100

This table refers to the earnings of all persons in receipt of some form of income. In the case of persons in casual employment such as beer-brewers and street vendors, an estimate of the monthly income was arrived at based on the available information. Where information was not sufficient the income was recorded as unknown.

We find therefore that probably about three of every four persons in Orlando earn £2 - £14. Only 6% (P) earn above £20 per month and as many as 12% (P) are earning/...

earning £1 or less.

We further find a larger probable number earning from £5 - £9 than £10 - £14.

The average income of persons in Orlando was £14.16.0. (P). Taking a 5% risk of error we can say that the average income lay between £12.14.0. and £17.12.0.

But since many women are only in part-time or casual employment a clearer picture is obtained if the incomes are analysed according to sex.

TABLE II (27).

THE INCOME OF PERSONS IN ORLANDO ACCORDING TO SEX.

<u>MONTHLY</u> <u>INCOME IN £.</u>	<u>PERCENTAGE INCIDENCE</u>					
	<u>Male:</u>			<u>Female:</u>		
	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>
Below 1	2	1 - 4	1 - 5	3	2 - 6	1 - 7
1	3	2 - 6	1 - 7	22	18 - 27	15 - 30
2 - 4	5	3 - 8	2 - 10	46	40 - 52	38 - 55
5 - 9	36	30 - 42	29 - 44	22	18 - 27	15 - 30
10 - 14	37	31 - 43	29 - 46	3	2 - 6	1 - 7
15 - 19	7	4 - 13	4 - 14	1	0 - 3	0 - 4
20 - 24	4	2 - 8	2 - 9	2	1 - 4	1 - 5
25 - 29	1	0 - 3	0 - 4	0	0 - 2	0 - 2
30 - 39	2	1 - 4	1 - 5	0	0 - 2	0 - 2
40 - 49	0	0 - 2	0 - 2	0	0 - 2	0 - 2
100	0	0 - 2	0 - 2	0	0 - 2	0 - 2
Unknown	2	1 - 4	1 - 5	0	0 - 2	0 - 2
TOTAL	100	100	100	100	100	100

It thus appears that on the whole the men earn more than the women. A good majority of the men fall into the income category £5 - £14, whilst the bulk of the females are earning £2 - £4 per month.

Of the men only 14% (P) earn more than £14 per month and of the women only 3% (P). Age is a further factor which, under normal circumstances, affects the income.

TABLE II (28).

THE INCOME OF THE POPULATION ACCORDING TO AGE.

MONTHLY INCOME £	PERCENTAGE INCIDENCE IN AGE GROUPS.														
	10 - 19		20 - 29		30 - 39		40 - 49		50 - 59						
	P. L.L.	C.L.	P. L.L.	C.L.	P. L.L.	C.L.	P. L.L.	C.L.	P. L.L.	C.L.	P. L.L.	C.L.			
Below 1	00-11	0-16	1	0-2	0-3	1	0-3	0-3	2	0-4	0-5	10	2-19	0-21	
1	00-11	0-16	4	1-7	0-8	7	3-11	2-13	4	8-8	0-8	12	3-21	0-24	
2 - 4	52	34-69	28-75	18	11-24	9-27	22	16-28	14-30	17	11-23	9-25	14	5-24	1-27
5 - 9	42	25-59	19-65	40	31-48	28-51	27	20-34	18-35	31	24-39	22-41	35	21-48	17-52
10 -14	7	0-15	0-18	29	21-36	18-39	25	19-32	16-34	33	26-41	23-43	16	6-27	3-30
15-19	0	0-11	0-16	4	1-7	0-8	6	2-10	1-11	7	3-11	2-12	2	0-6	0-7
20-24	0	0-11	0-16	2	0-4	0-5	6	2-9	1-10	3	4-6	0-7	2	0-6	0-7
30-39	0	0-11	0-16	2	0-4	0-5	2	0-5	0-6	1	0-2	0-2	0	0-4	0-5
40 +	0	0-11	0-16	0	0-3	0-5	1	0-2	0-2	0	0-3	0-5	0	0-4	0-5
100 +	0	0-11	0-16	1	0-2	0-3	0	0-3	0-5	1	0-2	0-2	0	0-4	0-5
Unknown	0	0-11	0-16	2	0-4	0-5	2	0-4	0-5	1	0-2	0-2	4	0-10	0-11
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Table II (28) contd.-

	P	MONTHLY INCOME £.		60 +	P.	L.L.	C.L.
		L.L.	C.L.				
Below 1	6	0-13	0-15	20-24	2	0-6	0-7
1	54	40-68	36-72	30-39	2	0-6	0-7
2 - 4	8	1-16	0-18	40 +	0	0-4	0-5
5 - 9	12	3-21	1-26	100 +	0	0-4	0-5
10 -14	16	6-26	3-29	Unknown	0	0-4	0-5
15 -19	0	0-4	0-5				
TOTAL					100	100	100

When considering the income of the population by age it appears that:-

- (1) The younger persons earn the lowest income.
- (2) Persons aged 40 - 49 more often earn above £10 than other persons. One in three in this age group are earning £10 - £14 per month.
- (3) Persons 50 - 59 years old seem to earn considerably less than persons 20 to 30 years old.
- (4) Over half the persons in the age group over 60 are earning £1 per month, i.e., are probably in receipt of only an Old Age Pension.

We can therefore conclude that incomes are highest among persons who have reached what might be termed "economic maturity" whilst the young and the aged are in receipt of smaller sums. The age of decline in earnings (50 - 59) seems to be earlier than amongst Europeans. This factor may be attributed to two factors:

(1)/...

- (1) that since most Africans are unskilled labourers their physical capacity for work naturally declines earlier than one engaged in mental work;
- (2) that persons falling into the category 50 - 59 years old have received less education and training than younger persons and therefore earn less. In view however of the small range of openings available to educated Africans, the latter reason seems improbable and the first one has probably a greater influence in creating this position.

TABLE II (29).

THE INCOME OF THE POPULATION ACCORDING TO EDUCATION QUALIFICATIONS.

<u>INCOME IN £.</u>	<u>PERCENTAGE INCIDENCE IN EDUCATIONAL QUALIFICATIONS.</u>								
	<u>Nil.</u>			<u>Primary</u>			<u>Higher Education</u>		
	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>	<u>P.</u>	<u>L.L.</u>	<u>C.L.</u>
1 and below	18	14-23	12-25	10	7-15	6-16	11	4-23	3-27
2 - 4	21	16-27	15-29	21	16-27	15-29	12	4-24	3-28
5 - 9	32	26-38	24-40	32	26-38	24-40	26	15-40	11-45
10 - 14	21	16-27	15-27	25	20-31	18-33	30	18-45	15-49
15 - 19	1	0- 3	0- 4	6	3-10	3-11	6	2-16	1-20
20 +	5	3- 8	2-10	4	2- 8	2- 9	11	4-23	3-27
Unknown	2	1- 4	1- 5	1	0- 3	0- 4	4	1-14	0-17
TOTAL	100	100	100	100	100	100	100	100	100

There seems to be very little difference between the earnings of persons who have had no education and those who have had primary school education. There is a slight probable tendency for persons who have had a higher education to earn a higher wage,

but/...

but this cannot be taken as conclusive evidence as the margins of approximation for this group are broad.

TABLE II (30).

INCOME OF HOUSEHOLDS IN ORLANDO.

INCOME	<u>PERCENTAGE INCIDENCE</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
0 - 9	11	7-16	6-17
10 - 19	40	34-46	32-48
20 - 29	30	24-36	23-37
30 - 39	10	7-15	6-16
40 - 49	5	3- 8	2-10
50 +	2	1- 4	1- 5
Unknown	3	2- 6	1- 7
TOTAL	100	100	100

About one in two of every household in Orlando earns below £20 per month. This figure shows the household income on the whole to be amazingly low when one considers that in by far the majority of households do we have more than one earner, and that 34% of the households have the earnings of more than one family.

The average income of the households lies between £18.12.0. and £22.14.0. (taking a 1% risk of error the most probable figure being £21.3.0.). As has previously been shown the average number of persons per household was 5.38. ($\pm .44$

at/...

at the 1% level). This would indicate that the average income available per person per month roughly lies between £3 and £4 (£3.18.0. (P)).

Since the household income is probably related to the size of the family and the type of household (for a household containing two families has a possibility of at least four potential earners - two husbands and two wives) the next table will indicate the distribution of households of income group amongst the types of households.

TABLE II (31).

THE DISTRIBUTION OF TYPES OF HOUSEHOLDS AMONGST HOUSEHOLD
INCOME GROUPS.

<u>TYPE OF HOUSEHOLD</u>	<u>PERCENTAGE INCIDENCE AMONGST INCOME GROUPS.</u>											
	<u>Below £20</u>			<u>£20-£29</u>			<u>£30 +</u>			<u>All Incomes</u>		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
T.N.F.	54	44-64	40-67	29	20-39	18-42	11	3-28	2-34	37	31-43	29-46
Extended Family	29	20-39	18-42	30	22-40	19-42	30	15-50	11-55	30	24-36	23-37
T.N.F. + Relative Family	8	4-15	3-18	13	8-32	6-34	27	13-47	10-54	12	8-17	7-18
Extended Family + Relative Family	5	2-10	1-12	16	8-25	7-27	5	0-20	0-25	9	6-14	5-15
T.N.F. + S/T Family	3	1- 7	0-10	10	5-17	4-20	8	2-25	1-30	8	5-13	4-14
Extended Family + S/T Family	0	0- 4	0- 5	2	0- 6	0- 8	16	5-35	3-40	4	2- 8	2- 9
T.N.F. + Relative Family + S/T Family	1	0- 5	0- 6	0	0- 4	0- 5	0	0-12	0-16	0	0- 2	0- 2
Extended Family + Relative Family + S/T Family	1	0- 5	0- 6	0	0- 4	0- 5	3	0-17	0-23	1	0- 3	0- 4
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

The width of the margins of approximation for the income group £30 + make any decisive conclusions about this group dangerous.

The above table seems to indicate however a definite trend for the households in lower income group to consist mainly of Tenant Natural Family and Extended Families whilst there are probably only a small proportion of Tenant Natural Families amongst the highest income group and a higher probable incidence of households with relative families and sub-tenants.

Whilst of the whole population 34% (P) are found to have more than one family in the household, of the households earning below £20 only 18% (P) were found to do so, the probable figure for the households earning £20-£29 and £30 + being 41% (P) and 59% (P) respectively.

The assumption that households showing a high income probably contained more than one family appears to be supported by the evidence in this table.

TABLE II (32)/...

TABLE II (32).

INCOME OF HOUSEHOLD ACCORDING TO THE SIZE OF THE HOUSEHOLD.

INCOME	<u>PERCENTAGE INCIDENCE IN HOUSEHOLDS.</u>					
	<u>5 and under Persons:</u>			<u>Over 5 Persons.</u>		
	<u>P.</u>	<u>LL.</u>	<u>CL.</u>	<u>P.</u>	<u>LL.</u>	<u>CL.</u>
0 - 9	13	8 - 32	6 - 34	9	4 -16	3 - 19
10 - 19	46	37 - 56	35 - 58	32	24 -42	22 - 44
20 - 29	28	19 - 38	17 - 41	33	24-43	21 - 45
30 - 39	9	4 - 16	3 - 19	9	4 -16	3 - 19
40 - 49	2	0 - 6	0 - 8	9	4 -16	3 - 19
50 +	1	0 - 5	0 - 6	3	1 - 7	0 - 10
Unknown	1	0 - 5	0 - 6	6	3 -11	2 - 13
TOTAL	100	100	100	100	100	100

The above table indicates a connection between the income of the household and the size of the household - the smaller households being more often in the lower income groups and the larger households more often in the higher income groups.

2) The Employment of Women.

Persons (1) who have studied urban African life have repeatedly pointed out that the urban African family relies to a large extent on the earnings of the wife and mother of the family in order to supplement her husband's wage income. This factor, in a community which has but scant facilities in creches, schools and nursery schools, is likely to have important repercussions on the education and development of the children and on family life in general.

In considering the economic conditions of the urban African it is thus not untoward to devote a specific section to the employment of women.

The survey of Orlando Township reveals the fact that :-

55% (P) of the women (2) in Orlando are gainfully employed.

47 - 60% (LL) " " " " " " " "

45 - 62% (CL) " " " " " " " "

This finding corresponds fairly closely to that of other findings e.g. M. Janisch found that excluding the women that make money by unadmitted means 45% of the women in her survey went out to work. E. Hellmann found that close on two-thirds of the mothers in the sample area and school teachers' families and one-half of the economic ally better group were engaged in some wage earning occupation.

(1) See R. Phillips: The Bantu in the City.
E. Hellmann: Urban Bantu Youth - Page 19-21
M. Janisch : A Survey of Income and Expenditure - Page 2

(2) The term 'women' is defined as "all females over 15 years of age who are not attend

TABLE II. (33)

The Occupational Distribution of Women in Orlando. (3)

Occupation.	Percentage Incidence.		
	P.	LL.	CL.
Washing:	23	18 - 28	16 - 30
Domestic Service:	12	-	-
Brewer:	10	6 - 15	5 - 16
Vendor:	5	3 - 8	2 - 16
Other Work:	6	-	-
Housewife:	24	-	-
Unemployed:	20	15 - 26	14 - 27
ALL OCCUPATIONS:	100	100	100

'Housewife' is defined as a married women not gainfully employed and not looking for such employment.

Of the unemployed group in the sample 32% were looking for employment, 60% were unemployable (i.e. old age pensioners, mothers with young babies, invalids, etc.) and 8% were idle, i.e. unattached (therefore not housewives) yet not willing to work.

The group 'other work' consisted of 12 factory workers, 2 teachers, 1 nurse, 1 witchdoctor, 5 dressmakers and 2 miscellaneous labourers.

Amongst the vendors were found both legal and illegal shopkeepers, a seller of second-hand clothing and a majority of street vendors.

- (3) Eighteen of the women in the sample had two occupations e.g. domestic service and washing, factory worker and dressmaker (see appendix). For the purposes of this table they have been counted twice. Thus according to this table, 56% (P) of the women would be gainfully employed. The discrepancy of this figure with the previous one quoted (53%) is due to this repetition.

The table indicates that the majority of women take one part-time and casual employment, such as, washing, brewing, street-selling, etc. This finding coincides with that of E. Hellman (1).

The low incidence of domestic servants is largely attributed to the fact that such employees are usually required to sleep on the premises of the European employer. So persons living in a residential area such as Orlando are not commonly found in this group. Most of the domestic servants in Orlando work in flats where the hours are shorter so that they can return home at night.

TABLE II (34)

The Employment of Women according to Marital Status.

Employment	Married			Deserted, widowed, divorced			Never Married.		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
Employed	52	45-58	44-59	70	59-80	55-84	39	27-51	23-55
Housewives	38	33-45	30-47	12	4-19	2-22	-	-	-
Unemployed	10	6-14	4-15	19	9-28	7-31	61	49-73	45-77
<u>ALL WOMEN:</u>	100	100	100	100	100	100	100	100	100

It thus appears that :-

- (1) Of the married women probably over half are in employment. Of the unmarried women in the sample, over half were found to be looking for employment.

(1) See E. Hellman - Urban Bantu Youth - Page 20.

- (2) The rate of employment amongst married women who no longer have a husband to support them i.e. the deserted, widowed, divorced, shows a higher incidence than that amongst the other women. This could be expected as they then become mainly responsible for the family income. A few are housewives. Most of which are supported by children's or relatives' earnings. Nineteen per cent (P) are unemployed. Of those unemployed 83% in the sample were unemployable and in receipt of old age or invalidity grants.

Of interest is the fact that single women show the lowest rate of employment and the highest incidence of unemployment. Of the unemployed single women in the sample, 61% were found to be unemployable, 31% looking for employment and 8% were idle. A considerable number of the unemployable are young girls with illegitimate children - when these are still young they cannot work and fall into the 'unemployable' category. This factor may also indicate a higher degree of instability amongst the women 'never married' than amongst the other women.

Place of Work.

The two main places where women in Orlando work are Johannesburg and at home in Orlando. A few go to places such as Maraisburg, Florida and Roodepoort. Of sociological importance is the incidence of women working at home, where they still have contact with their children and household duties and the incidence of those working away from home.

Of the total number of employed women in Orlando :-

57% (P) worked away from home

52 - 61% (LL) worked away from home
 50 - 65% (CL) " " " "
 and 45% (P) worked at home
 38 - 48% (LL) " " "
 37 - 49% (CL) " " "

TABLE II (35)

The employment of women according to length of residence in Johannesburg.

Period in Johannes- burg.	Working at home			Working away			Housewife			Unemployed			Total
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	
0 - 4	10	1 - 20	0 - 21	25	11-38	7-42	51	37-65	33-69	14	5-24	1-27	100
5 - 9	27	21 - 34	19-35	34	28-41	26-43	26	20-32	18-34	12	8-17	6-18	100
10- 14	40	21 - 59	15-65	16	5-27	0-35	20	4-36	0-41	24	7-41	2-46	100
15 -19	12	4 - 20	2-22	27	17-38	15-41	8	1-14	0-16	55	41-65	37-69	100
<u>TOTAL:</u>	23	18 - 27	17-29	30	25-35	24-37	26	21-30	20-32	21	17-26	16-27	100

It would thus appear that the women who most often work are those who have been resident in Johannesburg 5 - 9 years and 10 - 14 years.

Of the women who have only recently come to Johannesburg, probably about one-half are housewives. Should they work, they more easily work away from home than at home.

The /

The women who have been in Johannesburg 15 - 19 years show a higher incidence of unemployment. Of the unemployed women resident in Johannesburg, 15 - 19 years, the sample showed 46% to be unemployable, 46% unemployed, and 8% to be idle. The unemployable consist largely of old age pensioners. A good proportion - 27% (P) - are working away from home.

The women who have been in Johannesburg 10 - 14 years show the highest incidence of those working at home.

It would appear that the shorter the length of residence of the women in Johannesburg, the more likely they are to be housewives, the chances decreasing as the years in Johannesburg increase.

Having examined the employment of women according to their marital status, we now come to their employment according to the head of the household. In the category 'other' are placed all relatives who are a spouse or child of the head and sub-tenants.

TABLE II (36)

The Employment of Women According to Relationship to Head.

Relation- ship	PERCENTAGE						INCIDENCE		
	Working at Home			Working Away.			Not working		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
Head	27	12 - 4	7 - 47	45	28 - 62	13 - 67	27	12 - 43	7 - 47
Spouse	30	23 - 37	21 - 39	31	24 - 38	22 - 40	39	32 - 46	30 - 49
Children	15	4 - 27	5 - 30	36	21 - 51	16 - 56	49	32 - 66	27 - 71
Others	10	4 - 17	2 - 19	21	11 - 30	8 - 33	69	60 - 79	57 - 82
<u>TOTAL:</u>	23	19 - 28	18 - 29	30	26 - 34	25 - 35	47	42 - 52	41 - 53

The table indicates that the women who are heads of households more often work than those who are not. Furthermore, it would seem that probably a larger proportion work away from home than the average for the whole population.

Of the women who are wives of the head of the household 61% (P) are found to be in employment.

Of all the categories 'spouses' show the most tendency to work at home, showing a probable percentage well above the average of 23% (P).

Of the women in Orlando who are children of the head, 51% (P) are found to be in employment and 49% (P) not working. The width of the limits in this category, however, warn us of the danger of conclusions based on these figures.

Of interest is the finding that not less than 57% and as many as 82% (taking a 1% rate of error) of the persons not directly related to the head are not working; whilst only 31% (P) are found to be in employment. The sample revealed, however, that of these women in the group 'other' 29% were dependent parents and grandparents of the head.

Discussion.

We have seen that the probable incidence of employment amongst women exceeds one-half; that the majority of women are in part-time or unstable employment, such as washing, brewing, street-selling, etc; that the highest incidence of employment occurs amongst women who no longer have a husband to support them, i.e. in the group widowed, deserted,

divorced /

divorced, but that probably well on half the women having husbands to support them are also in employment; that correspondingly, women who are heads of households are the most often in employment, spouses coming next, whilst other relatives and sub-tenant women show the least incidence of employment; that the wives of heads show the most tendency to work at home; and finally, that women who most often work are those who have been in Johannesburg 5 - 9 years and 10 - 14 years.

Although the incidence of employment amongst women is high, the casual and unstable nature of such employment is a striking feature of urban African life. There are few openings for regular employment apart from domestic service which is unpopular with those living under family conditions and a limited number of factory jobs. As the family cannot live on the head's income the women resort to casual employment of which washing for Europeans is most common - this may be done either on the employer's premises, or preferably, at home. This type of work has the advantage of taking up only from two to four days a week, and when done at home, enables the housewife to supervise the household - at the same time. Furthermore, the help of children is often enlisted when doing the washing at home, and children are commonly sent to fetch and return the washing - getting up early in order to be back in Orlando in time to attend school. Brewing is probably the most lucrative trade, but also the most dangerous. There are two kinds of brewers - the ones who brew on a small scale for a limited number of customers - perhaps brewing only over week-ends - the ordinary beer - and there are the more daring large-scale brewers, who brew concoctions, such as "skokiaan" and "barberton" which are sold at double the rate of the other, but who also when caught receive double the amount of punishment in fine or imprisonment. Such persons often trade in European liquor as well (4).

Another fairly popular manner of supplementing the head's income is selling odds and ends in foodstuffs. Women go to the markets and buy fruit, tomatoes, sweet potatoes, which they go selling from house to house or more commonly set out on a box or larger and ready stall at crossroads, near the station, or at the schools, and sell to passers-by and children. The schools are said to be the best concerns, as children, having wiggled pennies from their parents, readily come and buy the foodstuffs offered - here items such as fish-crums, sweet drops from the sweet factories, and 'vet cookies' are commonly found. During the mealie season, children are often sent to the neighbouring farms to buy mealies which are then sold - roasted or otherwise - in the location at a much higher price.

But these occupations are easily interrupted - by pregnancies, ill-health, the arrival of visitors - and easily interchanged. One might try brewing to tide the family over a difficult period; get caught, so decide to try a safer job such as washing; then finding that it is the mealie season, one will give up the washing job in order to make money by selling mealies - after which one might try and get a job as a domestic servant for a while, or go back to brewing or washing.

Even domestic service jobs are unstable - the domestic servant population being a very mobile one - factory jobs are lucrative while they last, but much retrenching goes on and it may last for only a few days.

In a study of the employment of women of further interest would be the incidence of employment amongst women according to their husband's income; according to the size of the household; and further a study of the proportion they contribute to the household income.

(3) Unemployment.

"The lot of man is ceaseless labour or ceaseless idleness - which is still harder "
(T.S. Eliot).

In the past sections we found that 17% of all persons who are over 15 and not at school, are not employed. In order to view the problem of unemployment in its true context it is necessary to differentiate between the three main types of unemployed persons :-

Firstly we get the persons who are willing and able to work, but who are unable to find employment. These constitute a purely economic problem, and will hereafter be referred to as "unemployed."

Secondly there are persons who due to physical state are unable to work, i.e. the old and the invalid. These constitute a social problem which has nothing to do with the demand and supply of labour - they are hereafter referred to as the "unemployables."

Thirdly, we find the "idle" i.e. persons who are able to work but unwilling to work. These constitute the most complex problem, as, in order for them to be incorporated in the smooth flow of the society, a psychological and social adjustment as well as an economic adjustment has to be made.

Of the total number of persons in Orlando over 15 and not in school, the following percentages were found in each of these three categories :-

	P.	LL.	CL.
Unemployed	8	7 - 10	6 - 11
Unemployable	8	7 - 10	6 - 11
Idle	1	0 - 2	0 - 2

Persons not employed were distributed amongst the three categories as follows :-

	P.	LL.	CL.
Unemployed	44	34 - 54	32 - 57
Unemployable	47	37 - 57	34 - 60
Idle	8	4 - 15	3 - 17

The following table gives the distribution of the persons not working amongst males and females.

TABLE II (37)

The Sex Distribution of Persons not Employed.

Percentage incidence amongst persons not working						
	Males.			Females.		
	P.	LL.	CL.	P.	LL.	CL.
Unemployed	63	48 - 72	44 - 78	37	23 - 52	21 - 56
Unemployable	32	18 - 47	16 - 51	68	53 - 81	48 - 83
Idle	45	14 - 78	9 - 85	55	22 - 86	15 - 92
ALL PERSONS NOT WORKING:	47	37 - 57	34 - 61	53	43 - 63	39 - 65

Of all persons not working in Orlando there are more women than men. Notwithstanding this fact we find that the incidence of men who are unemployed well exceeds that of women.

On the other hand there are more women not working because they are physically unable to do so than there are men; thus roughly 2 of every 3 unemployable persons are women.

The persons who are not working or seeking employment show a comparatively even distribution though there are probably more women than men in this category. This cannot be attributed to the fact that married women do not work or do not wish to work, as these have not been counted for this purpose, but fall under the category "housewife."

TABLE II (38)

Percentage of persons in the total Population not employed according to age.

Age.	Unemployed.			Unemployable.			Idle.			Total.		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
Under 20	16	7-29	5-32	0	0-8	0-10	11	4-22	3-26	27	16-41	12-46
20-29	15	11-16	9-18	2	1-4	1-5	1	0-3	0-4	19	14-15	13-26
30-39	6	3-10	3-11	3	2-7	2-7	1	0-3	0-4	10	7-15	6-16
40-49	3	2-7	2-7	3	2-7	2-7	0	0-2	0-2	6	3-10	3-11
50-59	0	0-8	0-10	17	8-31	6-35	2	0-6	0-7	19	9-31	7-36
60 +	3	0-13	0-16	57	42-71	38-75	0	0-8	0-10	16	45-74	41-77
ALL AGES:	8	5-13	4-14	8	5-13	4-14	1	0-3	0-4	17	15-19	14-21

Young persons under 20 show the highest incidence of persons not employed. Of all persons under 20 not in school we find that 27% (P) are not employed and that 16% (P) are idle.

The incidence of unemployment decreases with age and shows a probable rise in the age group 60 + - this 3% represents persons seeking employment despite their age yet unable to find it.

As would be expected the incidence of unemployable persons rises with age and 57% of the persons aged 60 + are unemployable.

Idle persons appear mostly in the younger aged groups under 20 the incidence being negligible in the other age groups. This, together with the high rate of unemployment amongst youths, indicates the need for vocational guidance and employment/bureaux attached to the schools under easy access of both youths and parents.

Since unemployment is likely to have more frequent evil effects when a person is married than single let us consider persons not employed according to their marital status.

TABLE II (39)

Percentage of Total Population not Employed
according to marital status.

Marital Status	Unemployed.			Unemployable.			Idle			All persons not employed.		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
Married	5	3-8	2-10	5	3-8	2-10	0	0-2	0-2	10	8-12	8-13
Single	14	10-18	8-20	12	8-17	7-18	3	2-6	1-7	29	24-35	22-36
Widowed) Deserted) Divorced)	4	3-10	1-12	11	6-16	4-17	3	1-8	0-10	18	11-27	9-28
All PERSONS:	8	7-10	6-11	8	7-10	6-11	1	0-2	0-2	17	15-20	14-21

Single persons show the greatest incidence of persons not employed, the highest number being Unemployment. Married persons show the lowest incidence of persons not working and of all married persons not more than 2% (CL) are idle.

Persons widowed and divorced, deserted show a fairly large rate of unemployable persons. A small number appear both as unemployed and idle.

Table II 2 reveals that persons with no education were more often unemployed than persons with higher educational qualifications. Of interest therefore is the consideration of the persons not employed.

TABLE II (40)

Education of Persons not Employed.

Education	Percentage Incidence.			Total Population.		
	P.	IL.	CL.	P.	IL.	CL.
Nil	40	30 - 50	28 - 54	31	29 - 34	27 - 35
Primary	51	41 - 61	37 - 64	56	53 - 59	52 - 60
Higher	7	4 - 13	2 - 16	8	7 - 10	6 - 11
Unknown	2	1 - 4	0 - 5	4	3 - 6	3 - 6
<u>TOTAL :</u>	100	100	100	100	100	100

We find that roughly 1 in 2 of the persons not employed has had primary education. 7% (P) have had higher education. A higher probable percentage of persons unemployed have had no education than in the whole population.

Discussion.

From the foregoing tables we find that unemployment is not restricted to any group. It is found amongst men and women; amongst married and unmarried; amongst educated and uneducated; amongst young and old. It was found however that men are more often unemployed than women; that single persons are more often unemployed than married persons; that uneducated persons are more often unemployed than educated persons, and that unemployment amongst youths is very much more prevalent than amongst adults.

There is no doubt that unemployment and all its retinue of evils is a strong disintegrative force in Orlando Township. Youths are found in gangs gambling and dagga smoking around shops or corners of Shelters. These activities often lead to quarrels and at the slightest provocation knives are produced - much stabbing goes on. After a while, such youths who at first may have been keen to find employment, loose all wish to do so and become satisfied with their indulgent idle lives.

Of the incidence of unemployment amongst male juveniles Ellen Hellman says (1) "As my review of various industries showed, there is little scope for them. Such occupations as caddying and newspaper selling which do offer employment to them are blind alley jobs, and caddying with its insistence on compound existence and rigorous discipline is highly distasteful to urban juveniles. The low level of Native wages as a whole offers no economic inducement to the employer to take on juvenile workers.

(1) E. Hellman: "Problems of Urban Bantu Youth". (P.141)

There is no inducement in the form of more attractive and better paid work for higher educational qualifications to inspire the juvenile to continue his schooling. There is no social agency whatever to step in at this time of aimless drifting in the adolescent's life to direct him and assist him into employment. The low wages of the adult and the unskilled nature of his work are a perpetual guarantee to the juvenile that he too can start at that low grade, there to remain when he so wishes. There is no healthy outlet for his energy. There are on the other hand diversions such as gambling and drinking, to which these juveniles turn in the absence of other distractions: there are ways of earning a living by part-time work, both legal and illegal, which may unfit them later for the discipline of regular employment. They are not deterred by the ineffective sanctions of their own society floundering in a chaotic transition period. The laws of the European they fear but by no means respect. Unless energetic and sympathetic action is rapidly taken, I believe that this rising generation will, in the years to come, constitute an evergrowing problem to the whole community both white and black."

The pass laws also effect such persons adversely. On several occasions during the investigation it was found that persons who had been going to register for unemployment at the Employment Bureau were arrested and imprisoned. This often happens to persons on their way to the Pass Office, and so many unemployed persons prefer to shelter in safety in the townships rather than to risk being arrested.

Much retrenching in factories takes place and even persons in employment often live in economic insecurity.

4). Expenditure on Rent, Fuel and Transport.

Miriam Janisch in her Survey of African Income and Expenditure, in 987 families in Johannesburg undertaken in 1944 found that "expenditure on the bare necessities of living, food, rent, transport, fuel and light, amount to more than 90% of the income. This bears out the evidence of the smaller survey made by this Department in 1938 and that of studies by others carried out in Johannesburg and Pretoria during the last few years". (P.21).

The Survey of Orlando sought to determine what proportion of both the household and the tenant heads' income was spent on items directly related to housing, i.e. rent, fuel and transport. The importance of the first is obvious as it relates directly to building costs and subsidies. The second, though often overlooked, is also important and with the present policy of building Native Townships at a distance from the place of work, the cost of transport becomes an integral part of the cost the Native has to pay for his housing. The third, fuel, is relevant since the installation of gas or electricity is a factor to be considered in planning any housing scheme. An equally important item was, however, regrettably omitted from the survey - i.e. expenditure on light. In Orlando no electric lighting is provided in the houses and persons rely mainly on candles, paraffin lamps or often on wicks, soaked in paraffin, to provide the necessary lighting. The figures given in the following tables were computed in the following manner.

(1) All the incomes of the households and heads were added within certain categories, e.g. 0 - 4, 5 - 9, the expenditure on each of the above items was taken as a percentage of the total incomes for each group. The percentage of households falling into each income group is given together with its limits of approximation. An average for all households is given in each case. But since no standard errors have been computed for these averages, they must remain only rough approximations of the truth.

1. EXPENDITURE ON RENT.

TABLE II (41).

Expenditure of Households on Rent.

Rental in shillings and pence	PERCENTAGE OF HOUSEHOLDS.		
	P.	L.-L.	G.-L.
5/-	31	25 - 37	23 - 33
10/-	3	1 - 5	0 - 5
17/4	36	30 - 42	28 - 44
21/8	17	13 - 23	11 - 24
28/2	2	0 - 4	4 - 5
32/6	3	1 - 5	0 - 6
35/-	4	1 - 6	0 - 7
50/-	4	1 - 6	0 - 7
TOTAL	100	100	100

We find that probably one in three of the households in Orlando is paying a rental of 10/- or less, but that such rentals are for temporary structures, which play no role in the actual planning of housing schemes. Thus, were all persons to be housed according to plan, in houses, the percentage of households paying higher rentals would rise considerably. This factor must be remembered in the following table.

TABLE II (42).

Percentage of Household Income spent on Rent, According to Income of Household.

Household Income in £.	Expenditure as a % of Househ.	Nos. of Households in %.		
		P.	L.L.	G.L.
0 - 4	34	6	3 - 10	3 - 11
5 - 9	11	5	3 - 8	2 - 10
10 - 14	6	20	15 - 26	14 - 27
15 - 19	4	20	15 - 26	14 - 27
20 - 24	4	20	15 - 26	14 - 27
25 - 29	3	10	7 - 15	6 - 16
30 - 34	1	6	3 - 10	3 - 11
35 - 39	3	3	2 - 6	1 - 7
40 - 44	3	4	2 - 8	2 - 9
45 - 49	1	1	0 - 3	0 - 4
50 - 74	3	1	0 - 3	0 - 4
75 - 109	1	0	0 - 2	0 - 2
100 - 114	1	0	0 - 2	0 - 2
Unknown	Unknown	3	2 - 6	1 - 7
TOTAL		100	100	100

An average of 4% (P.) of all household incomes is spent on rent.

We find that 6% (P.) of the Orlando households are spending about one third of their income on rent. This shows that an appreciable proportion are in serious straits. Their plight is aggravated by the fact that so little remains from their income £5 - £4, for food, clothing etc.. and other essential items of expenditure. The bulk of the households, 60% (P.) are spending 4 - 6% of their income on rent.

It must be remembered that a large number of temporary shelters comprising 31% of the Orlando dwellings whose rentals are only 5/- per month are included in these figures and will therefore affect the proportions. Were only the houses to be considered it would be found that the proportions spent on rentals would then rise considerably.

The rent is still traditionally the responsibility of the head and he often prides himself on providing this for his family. It is found therefore that in many households no money other than his will be used for the rent. Moreover, rent is an item which officially is the heads' responsibility and which has to be paid irrespective of the composition of the household, its size or of the number of earners it has. It is thus in many ways wiser and more accurate to consider it as a proportion of the heads' income, than as a proportion of the household total income. This is done in the following table.

TABLE II (43).

Percentage of Heads' Income spent on rent.

Heads' Income.	Expenditure as % of Income.	% Incidence of Households.		
		P.	L.L.	G.L.
0 - 4	74	16	12 - 21	10 - 22
5 - 9	11	26	21 - 32	19 - 34
10 - 14	7	37	32 - 43	29 - 46
15 - 19	5	8	5 - 13	4 - 14
20 - 24	5	7	4 - 11	3 - 12
25 - 29	3	2	1 - 4	1 - 5
30 - 34	2	2	1 - 4	1 - 5
35 - 39	0	0	0 - 2	0 - 2
40 - 99	0	0	0 - 2	0 - 2
£100 +	1	0	0 - 2	0 - 2
Unknown	Unknown	1	0 - 3	0 - 4
TOTAL		100	100	100

Taking all the heads' of households in Orlando we find that they spend an average of 7.5% (P.) of their income on rent.

Considering rent as a percentage of the Heads' income we find that for not less than 10% and as many as 22% (L.L.) rent drains them of nearly $\frac{1}{2}$ of their income. For the bulk of heads (62% (P.)) rent takes up from 7% to 11% of their income.

For only a few does rent constitute less than 5% of their income.

2. EXPENDITURE ON FUEL.

TABLE II (44).

Expenditure of Households on Fuel.

Expenditure in shillings.	Percentage of Households.		
	P.	L.L.	C.L.
0 - 4	1	0 - 3	0 - 4
5 - 9	2	1 - 4	1 - 5
10 -14	17	13 -22	11 -23
15 -19	45	39- 51	37 -53
20 -24	16	12 -21	10 -22
25 -29	11	7 -16	6 -17
30 -35	7	4 -11	3 -12
Unknown	1	0 - 3	0 - 4
TOTALS	100	100	100

Few households spend less than 10/- per month on fuel. The majority of households spend 15 - 19/- per month on fuel, whilst about 1 in 3 of the households spend more than £1.0.0. per month on fuel.

Let us examine what proportion of the household and heads' income goes into this item of expenditure.

TABLE II (45).

Percentage of Households' Income Spent on Fuel.

Household Income.	Expenditure as % of Income.	Percentage of Households.		
		P.	L.L.	C.L.
0 - 4	31	6	3 - 10	3 - 11
5 - 9	13	5	3 - 8	2 - 10
10 -14	7	20	15 - 26	14 - 27
15 -19	6	20	15 - 26	14 - 27
20 -24	5	20	15 - 26	14 - 27
25 -29	4	10	7 - 15	6 - 16
30 -34	3	6	3 - 10	3 - 11
35 -39	2	3	2 - 6	1 - 7
40 -44	3	4	2 - 8	2 - 9
45 -49	3	1	0 - 3	0 - 4
50 -74	2	1	0 - 2	0 - 2
75 -109	1	0	0 - 2	0 - 2
110 -114	1	3	2 - 6	1 - 7
ALL INCOMES	5	100	100	100

The average expenditure of households on fuel is 4.6% (P.) of the income.

For 6% (P.) of the poorest households 31% of their total household income is spent on fuel. For 70% of the households of Orlando it takes up 4% to 7% of the household income, and very few spend less than 3% of the income.

Fuel is another item which has to be provided, mainly out of the heads' income or often from his wife's earnings - she is the one that uses it and therefore often has to provide it herself. There is no pride attached to this as in the provision of rent by the head. Under tribal conditions it is the wife who collects the fuel and this factor may well be a remnant of tribal influence. On only rare occasions, however, was it found that any other earners in the household would assist in the provision of fuel. The following table therefore shows fuel as a percentage of the heads' income.

TABLE II (46).

Percentage of Heads' Income spent on Fuel.

Heads' Income.	Expenditure on Fuel as % of Income.	Percentage of Households.		
		P.	L.L.	G.L.
0 - 4	77	16	12 - 21	10 - 22
5 - 9	13	26	21 - 32	19 - 34
10 - 14	8	37	32 - 43	29 - 46
15 - 19	6	8	5 - 13	4 - 14
20 - 24	4	9	4 - 11	3 - 12
25 - 29	4	2	1 - 4	1 - 5
30 - 34	3	2	1 - 4	1 - 5
35 - 39	3	0	0 - 2	0 - 2
40 - 99	0	0	0 - 2	0 - 2
£100 +	1	0	0 - 2	0 - 2
Unknown	Unknown	1	0 - 3	0 - 4
ALL INCOMES		100	100	100

The average amount spent on fuel is 3.7% (P.) of the heads' income.

Fuel appears to be a greater item of expenditure than transport and 16% (P.) spend 77% of the heads' income. The bulk of persons spend 8% to 13% of the heads' income, whereas for households it took up 5% to 7% of the income for 60% (P.) of the households.

Because of their low earnings and the fact that the majority of Natives are paid weekly, most households find it difficult to buy in bulk and have to rely on day to day purchases. This is particularly apparent in their expenditure on fuel. By far the majority buy wood in small bundles, spending 3d or sometimes 6d a day. In only a few cases was wood bought in any large quantity. Coal is usually bought in bags at 2/6d or 2/9d a bag. This bag was generally said to last one week in summer and half a week in winter; most of this fuel is bought from Native wood or coal merchants.

3. EXPENDITURE ON TRANSPORT.

TABLE II (47).

Individual expenditure on Transport.

Amount Spent.	Percentage Incidence.		
	P.	L.L.	G.L.
1d- 4/11	12.9	10 - 17	8 - 19
5/- 9/11	70.5	67 - 76	65 - 78
10/- 14/-	10.9	6 - 14	7 - 16
15/- 19/11	1.3	0 - 2	0 - 4
Over £1.	4.0	3 - 6	2 - 7
Unknown.	.2	0 - 24	0 - 3

This table deals with individual, not household expenditure.

Since a monthly railway ticket to Johannesburg costs 9/5d the great majority of persons are found in the 5/- to 9/11 expenditure group. As many as 4% (P.) however are spending over £1. per month on transport. These sums at first may not appear very high but when compared to the earnings of the average African it can be appreciated that transport is a considerable item of expenditure. This fact is often mentioned by the Orlando residents and contributes to their sense of grievance at the Municipal policy of building the Native townships far from their place of work.

TABLE II (48).

Percentage of Household Income spent on Transport.

Household Income.	Expenditure as % of Income.	Percentage of Households.		
		P.	L.L.	C.L.
0 - 4	9	6	3 - 10	3 - 11
5 - 9	5	5	3 - 8	2 - 10
10 -14	6	20	15 - 26	14 - 27
15 -19	5	20	15 - 26	14 - 27
20 -24	4	20	15 - 26	14 - 27
25 -29	5	10	7 - 15	6 - 16
30 -34	4	6	3 - 10	3 - 11
35 -39	4	3	2 - 6	1 - 7
40 -44	3	4	2 - 8	2 - 9
45 -49	3	1	0 - 3	0 - 4
50 -74	3	1	0 - 3	0 - 4
75 -109	1	0	0 - 2	0 - 2
110 -114	0	0	0 - 2	0 - 2
Unknown	Unknown	3	2 - 6	1 - 6
TOTALS		100	100	100

Transport constitutes as important an item of expenditure as fuel and rent and averages 4.4% of all household income as compared with 4.6% spent on fuel and 4% on rent, the latter however being unduly low at present in Orlando owing to the inclusion of shelters.

For the majority of households transport constitutes an item of expenditure comprising 4 to 6% of their income. This is the case even of households earning as much as \$35 to \$39 per month. In only 6% (p.) of the households do transport expenses constitute less than 4% of the income and in 6% (P.) of the households transport expenses constitute as much as 9% of the household income.

Since the head of the household can be considered as the most stable wage earner it is of interest to consider the expenditure on his transport to work as a percentage of his income.

TABLE II (49).

Percentage of Heads' Income Spent on Transport.

Heads' Income.	Transport as a % of Income.	Percentage of Heads'.		
		P.	L.L.	G.L.
0 - 4	9	16	12 - 21	10 - 22
5 - 9	5	26	21 - 32	19 - 34
10 - 14	4	37	32 - 43	29 - 46
15 - 19	3	8	5 - 13	4 - 14
20 - 24	2	7	4 - 11	3 - 12
25 - 29	2	2	1 - 4	1 - 5
30 - 34	2	2	1 - 4	1 - 5
35 - 39	0	0	0 - 2	0 - 2
40 - 49	0	0	0 - 2	0 - 2
£100 +	0	0	0 - 2	0 - 2
Unknown	Unknown	1	0 - 3	0 - 4
ALL INCOMES		100	100	100

For 63% (P.) of the Heads' transport constitutes 4 - 6% of their income. For as many as 16% transport takes up 9% of their income.

The average amount spent on transport by the heads is 3.4% of their income (1). M. Janisch found that 6% of the income is spent on transport (2). This was the average for all the townships, from one of which at least it is possible to walk to the city. It is not clear however whether the wife's transport expenses are included or not and whether this percentage relates to the heads' income, the heads' plus spouses' income, or the gross household or family income.

(1) This is less than the average percentage of the household income which may suggest that some earners do not go to town and furthermore that persons other than the head spend a comparatively greater proportion of their income on transport. This is feasible since women in casual employment do not take monthly concession tickets.
 (2) M. Janisch in "A Survey of African Income and Expenditure" (Page 23.)

Transport is together with rent an item which must be paid for and cannot be saved upon. It is an inevitable recurrent expense. The railway fares at the time of survey were:-

9/5d monthly ticket (exceeded Sunday travelling).

2/9d week ticket -do-

7d daily ticket.

(Since the 1st April 1949, these have been increased to 10/1d. 2/11 and 8d respectively)

Persons permanently employed usually took the 9/5d monthly ticket. Some were found however to resort to the weekly ticket as they were earning weekly wages and found it impossible in any one week to save sufficient for a monthly ticket.

TABLE II (50)

Percentage of Household Income Spent on Rent, Fuel and Transport.

Household Income.	Expenditure as % of Income.		Percentage of Households.	
		P.	L.L.	C.L.
0 - 4	74	6	3 - 10	3 - 11
5 - 9	28	5	3 - 8	2 - 10
10 - 14	19	20	15 - 26	14 - 27
15 - 19	15	20	15 - 26	14 - 27
20 - 24	13	20	15 - 26	14 - 27
25 - 29	12	10	7 - 15	6 - 16
30 - 34	3	6	3 - 10	3 - 11
35 - 39	9	3	2 - 6	1 - 7
40 - 44	9	4	2 - 8	2 - 9
45 - 49	6	1	0 - 3	0 - 4
50 - 74	7	1	0 - 3	0 - 4
75 - 100	3	0	0 - 2	0 - 2
100 +	2	0	0 - 2	0 - 2
Unknown	Unknown	3	2 - 6	1 - 7
ALL INCOMES		100	100	100

Taking all the households of Orlando we find that average

of 12.8% (p.) is spent on the three items - rent, fuel and transport. About half the households of Orlando spend more than 15% of their income on items directly related to housing, i.e. rent, fuel and transport. Not less than 3% and as many as 11% are spending as much as 74% of their household income on this item and not less than 2% and as much as 10% are spending 28% of their income on these items. The Bulk of households 60% (P.) seem to spend between 13% and 19% of their household income in this manner. Only 15% (P.) spend less than 10% of their income on rent, fuel and transport.

TABLE II (51).

Percentage of Heads' Income spent on Rent, Fuel and Transport.

Heads' Income	Percentage Expenditure.	Percentage of Heads.		
		P.	L.	G.L.
0 - 4	150	16	12 - 21	10 - 22
5 - 9	30	26	21 - 32	19 - 34
10 - 14	19	37	32 - 43	29 - 46
15 - 19	14	8	5 - 13	4 - 14
20 - 24	11	7	4 - 11	3 - 12
25 - 29	10	2	1 - 4	1 - 5
30 - 34	7	2	1 - 4	1 - 5
35 - 39	3	0	0 - 2	0 - 2
40 - 99	0	0	0 - 2	0 - 2
£100 +	2	0	0 - 2	0 - 2
Unknown	Unknown	1	0 - 3	0 - 4
TOTAL		100	100	100

The average expenditure on these three (3) items is found to be 19.6% (P.) of the heads' income.

(3) For this table the entire rental, fuel expenditure, plus only the heads' transport expenses have been related to the heads' income.

We find that 16% of the heads could not afford these three items on their earnings and therefore are entirely dependent on supplementary earnings of other members of the household to provide these.

Twenty-six percent (P.) and certainly not less than 19% and as many as 34% spend 30% of their income on these items.

For 76% (P.) they constitute more than 19% of the income, whilst for only very few 2% (P.) do these items comprise less than 10% of the heads' income.

CONCLUSION.

In concluding this section on the Economic Conditions of the Africans in urban areas I should like to stress the need for far more research in this sphere. Johannesburg, the centre of industry in South Africa, has no measure of the poverty of her large African labourer class, though much is spoken and written about it. The 1944 Commission to Enquire into the Operation of the Non-European Bus services found "that the vast bulk of Native workers are below the Poverty Datum Line and that in spite of the increase in wages since 1940, the gap between family income and minimum requirements for subsistence and decency has increased. If the wages of the head of the family are not supplemented by the contributions of the wife, the gap is very great indeed."

Yet no consistent detailed measure of poverty has been worked out for Johannesburg as has been ^{done} by Professor E. Batson for Cape Town and Salisbury (4). This is an urgent and necessary problem for investigation and it is hoped that the inadequate and small amount of data that it has been possible to collect on the subject of the economic position of the urban African in this survey will inspire others to institute detailed investigations into this question on a more comprehensive scale.

(4) See The Poverty Line in Cape Town: Professor E. Batson, and
The Poverty Line in Salisbury: Professor E. Batson.

C. SOCIAL CONDITIONS.

(1) Marriage and the Family.

This is possibly one aspect of Bantu life that has changed considerably through contact with Western Civilization. From all sides one hears of the disintegration of the Bantu family, the instability of African marriages and the high rate of illegitimacy prevalent amongst the urban African - all these factors are aggravated by the bad living conditions of this section of our community.

"Nowhere are the disintegrating effects of urban conditions and environment more apparent than in the change in family relationships of which marriage is the focal point. The permanence of marriage is tending to be undermined; the exclusiveness of the sexual bond between the partners is disappearing; the Native conception and the function of lobola are undergoing a startling metamorphosis; kinship obligations and parental control are greatly diminished. The restraints of tribal discipline have^{not} as yet emerged from out of the chaotic vortex of transition. The old sanctions have lost their force, and the sanctions which order European life are not yet applicable to Native life". (1)

A brief account is given in this Survey of various factors such as types and duration of unions, which throw a little light on the subject, but it is one that needs, and will repay, deeper research than could be given during the survey. The marital status of the entire population was given in Tables II (9) and (10).

The following types of marital unions are to be found amongst Africans.

1) Native Customary Union or Lobola. This traditional form of marriage still prevails. Owing to the infinite variations that occur it is difficult to define accurately but its essential characteristics are that the parties are married with the knowledge and consent of their parents or guardians; it is publicly celebrated

(1) E. Hellman - "Rooiyard" - A sociological survey of an urban Native slumyard.

through a wedding party, and usually involves the exchange of "Lobola", in cash or in kind. Lobola may be paid in toto or by instalments. This union is officially recognised although it has legal definition only in Natal.

ii) Civil Marriage. This is a marriage contracted according to the Union laws. The laws apply equally to European and Native, except that divorce procedure is simplified for the latter in so far as the Native Commissioners' Court have been given jurisdiction to grant Native divorces.

iii) Christian Rites. This refers to marriage solemnised in a Church according to the religious denomination or sect of the Spouses concerned. If the Minister concerned is not a Marriage Officer, such unions have no legal validity and can only be validated by Civil marriage in Court. As the Ministers of many Native and Foreign religious sects are not recognised Marriage Officers many so called Christian marriages should be confirmed in Court. This distinction between legal and void Christian Rites has not however been observed in the following tables.

iv) Combinations. The above three types are found in their pure form. Various combinations of these three types are also to be found.

v) Illegal Unions. Finally, emerging largely from the economic and social conditions of the urbanised African, there is the "illegal union" which has not been contracted in any of the above ways.

When discussing the types of marriage all these forms will be considered, except in some cases where the small numbers married by Civil Rites only and by Civil Rites and Lobola make it necessary to combine these two. All unions past and present of persons living in Orlando at the time of the survey have been considered.

TABLE II (52).

Types of Union of Persons in Orlando.

Type of Union.	Percentage Incidence.		
	P.	L.L.	C.L.
Christian Rites Only	17	15 - 20	14 - 21
Christian Rites and Lobola	26	24 - 28	22 - 30
Native Customary Union	36	33 - 39	32 - 40
Civil Union	2	1 - 3	1 - 3
Civil and Lobola	3	2 - 4	2 - 5
Illegal Union	12	10 - 14	9 - 15
Unknown	4	3 - 6	3 - 6
TOTAL	100	100	100

We find that of all types of marriages in Orlando marriage by Christian rites predominates. One of every four marriages in Orlando takes the form of both marriage by the Church together with marriage according to the traditional tribal manner where 'lobola' cattle are transmitted from the man's family to that of his wife.

Although only 36% of the marriages are by Native Customary Union only, we find that the custom of Lobola still has a strong hold. In 65% of unions in Orlando the transaction has taken place. The meaning of it however is fast being changed in the urban areas and it is becoming an economic transaction instead of remaining the traditional, religious and social one.

Very few of the unions were found to have been contracted in the Court only. The Bantu consider it a cheap half crown marriage which does not make for stability. Furthermore the lack of ceremony attached to the Court marriage no doubt renders it less attractive than other forms.

Twelve per cent (P.) of the unions in Orlando were found to be illegal. This figure does not include unions described above where the Lobola was only partially

paid for. This feature of Bantu life is a new one emerging in the urban areas, which was not found under the controlled and ordered tribal life. The causes of it are complex and numerous and much research into this aspect of urban African life is called for.

Amongst the reasons given to us by persons entering into such unions were the following:-

- 1) The lack of money to pay Lobola or to afford a Church wedding, (for to the urban Bantu the Church wedding has become synonymous with all the attached paraphernalia).
- 2) The need of widowed or deserted women for support. In several cases women were found to be living with men younger than themselves. Since the Bantu consider that a man must be older than his wife such a union will not be legalised. Yet the woman finds that she cannot support her family or pay her rent with her earnings so takes in a young man who will assist her financially and pay the rent. He on the other hand needs accommodation, not having saved enough to get married and finds this arrangement a convenient one. Children of such persons may be brought up with a succession of 'fathers'.
- 3) Other cases were found of married men who have their wife and family in the rural areas but who wished to obtain a house. Since to obtain a house one must have one's wife in the Township a wife would be acquired for this purpose. The arrangement is often mutually satisfactory.

Amongst other reasons for the illegal unions and family instability can be listed, economic poverty, the migratory labour system, loss of parental and social control, the general confusion arising from the breakdown of the tribal system and the contact with Western Civilization, and finally all the environmental conditions and inadequate housing prevailing in the urban Native Townships.

Of interest is the incidence of the distribution of unions amongst types according to the period of time when contracted.

TABLE II (53).

Distribution of Types of Union According to Dates of Union.

Types of Union.	1919 & before.			1920-1928			1929-1935			1936-1939			1940-1943			1944-1948		
	P. L.L.	C.L.		P. L.L.	C.L.		P. L.L.	C.L.		P. L.L.	C.L.		P. L.L.	C.L.		P. L.L.	C.L.	
Christian Rites only	23	15-33	13-36	20	13-29	11-32	19	14-25	13-26	18	11-27	9-29	9	4-16	3-19	13	8-22	6-24
Christian Rites and Lobola	32	23-42	21-45	32	23-42	21-45	23	18-28	17-30	33	24-43	23-46	30	21-40	19-43	22	14-32	12-34
N.C.U. Civil only and Civil and Lobola.	41	31-51	21-54	39	29-49	27-52	42	36-48	34-51	27	18-37	17-40	37	27-47	25-50	30	21-40	19-42
Illegal Union	2	0-6	0-8	2	0-6	0-8	4	2-8	2-9	8	4-15	3-18	11	6-18	4-20	8	3-15	2-18
UNKNOWN	2	0-6	0-8	7	3-13	2-16	8	5-13	4-14	14	8-22	6-25	12	7-20	5-22	27	18-37	17-40
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

From the above table we see that

- 1) The proportion of marriages which are contracted by Christian Rites only appear to decrease as the years go by, the probable incidence being 23% before 1920 and only 13% in the latter years 1944-48.
- 2) The proportion of marriages by Christian Rites and Lobola are fairly constant before 1944, except for the period 1929-1935. The marked decrease from 32% to 23% may possibly be due to the depression and the difficulties of affording lobola.

Marriage by Native Custom remains fairly constant until the period 1936-1939 where it showed a marked decrease, and after a rise in the period 1940-43 it falls off in 1944-48. No reason can be suggested for this.

Marriage in the Civil Court at all times remains a small proportion but shows an increase in more recent years.

Illegal unions show a marked and fairly steady increase with the years and reach the high proportion 27% (P.) in the period 1944-1948. This period started with the establishment of the squatter camps and of the Orlando shelters.

A factor that may have influenced the high rate of illegal unions in this period is the fact that it includes unions at the time of the survey. These investigations reveal a number of illegal unions which had only recently been contracted, which possibly would not last very long, and which at a later date of investigation would not be revealed.

The figures however are indicative of a general trend of increase of illegal unions amongst the Bantu in the urban areas.

TABLE II (54).

Reason for Expiry of Union.

Reason.	Percentage Incidence.		
	P.	I-J.	G.J.
Death	66	60-71	57-74
Divorce	8	5-13	4-14
Desertion	20	18-26	14-27
Illegal Union			
Become Legalised.	4	2- 8	2- 9
Unknown.	3	2- 6	1- 7
TOTAL	100	100	100

About two of every three unions expire because of the death of one of the spouses. Roughly one in five because of desertion and only a few because of other reasons.

Of further interest is the reason for expiry according to the type of union contracted. For this purpose all unions by Common Law have been grouped.

TABLE II (55).

Reason for Expiry of Union According to Type of Union.

Reason Expired.	PERCENTAGES.								
	Civil and Christian Unions.			N.C.U.			Illegal Unions.		
	P.	L.C.	C.L.	P.	L.C.	C.L.	P.	L.C.	C.L.
Death	74	65-83	62-64	75	65-83	63-85	31	16-51	12-56
Divorce	12	7-20	5-22	4	2-10	1-12	0	0-8	0-10
Desertion	13	8-22	6-24	21	13-31	12-33	31	16-51	12-56
Illegal Union									
Legalised	0	0-3	0-4	0	0-3	0-4	31	16-51	12-56
Unknown	0	0-3	0-4	0	0-3	0-4	6	1-21	0-26
TOTAL	100	100	100	100	100	100	100	100	100

Of the Unions by Civil and Christian Rites or by Native Custom there appears to be about an equal proportion which expire because of the death of one of the Spouses - this being about 3 in 4 of every expiry.

There are more expirys due to desertion in marriages contracted by Native Custom than in those by Common Law, the latter probably having a higher rate of divorce. The reason for this is probably that better machinery through the courts exists for preventing desertion or obtaining divorce, than in the case of N.C.U. which are more easily terminated by desertion.

The margins of approximation for illegal unions are too broad for any conclusions.

"During a period of rapid urbanisation, a very large proportion of the national income must be invested in housing, if a country wants to avoid complete disorganisation of the family structure". (2)

(2) Dr. Sonnabend: Sociological Approval to Housing and Townplanning : S.A. Architectural Record, February 1947.

2. Education.

In planning any urban scheme the provision of educational facilities is one of the primary factors to be considered.

In planning Orlando Township, the Council made provision for open stands for schools and churches, but left these to be built by interested religious bodies. These put up the schools, after which they obtain a Government subsidy on equipment and the teachers' salaries. At the time of survey there were 20 primary schools in Orlando established by church bodies, one established by a group of Africans called Iterele (self-help) whose classes were held in the Communal Hall, and one Government High School, which gave instruction up to matric. There were further found to be at least two independent schools in the shelters, not registered as schools, but run by persons who collected fees for their services. Both the schools we came into contact with had about 300 children each and had overflowed from the shelter where they were originally harboured into the street.

The preliminary survey of facilities provided in Orlando Township revealed the fact that most schools had accepted surplus children, the classrooms being packed far beyond the accepted standard. Five schools had further established "afternoon sessions" in order to increase the number of children able to attend school. Most schools said that they had turned away numerous children.

Let us now examine the distribution of persons at school. (Persons over 15 not attending school are included in the table of those having left school). Otherwise all children up to the age of 15 and all persons still at school are included. Children up to the age of 7 have been counted as pre-school. Those aged 7 and over not at school are so recorded.

A few adults are included in the following table. They are persons who are attending correspondence courses or attending night schools.

TABLE II (56).

Education of Persons in Orlando at School.

Education.	Percentage Incidence.		
	P.	L.L.	G.L.
Pre-school	40	37 - 43	36 - 44
Not at School	3	2 - 4	2 - 5
Nursery School or Creche	2	1 - 3	1 - 3
Sub-Standards	24	22 - 27	21 - 28
Std. I - III	19	17 - 21	16 - 23
Std. IV - VI	8	7 - 10	6 - 11
Secondary School and vocational training.	3	2 - 4	2 - 5
Unknown.	0	0 - 1	0 - 1
TOTAL	100	100	100

Since age, under normal circumstances, has a direct bearing on the educational distribution of persons, let us examine the educational standing of persons according to their age.

TABLE II (57)

Age Distribution of All Persons Attending School.

Age.	Percentage Incidence.		
	P.	L.L.	G.L.
0 - 5	41	38 - 44	37 - 45
6 - 10	26	23 - 29	22 - 30
11 - 15	24	22 - 26	21 - 28
16 - 19	6	5 - 7	4 - 6
20 Plus	4	3 - 5	3 - 6
TOTAL	100	100	100

The age distribution seems to tally fairly logically with the educational standing given in Table II (56).

TABLE II (58).

Education of Persons Attending School According to Age.

Educational Standard.	Percentage Incidence in Age Groups.											
	0 - 5			6 - 10			11 - 15			16 Plus		
	P.	L.L.	G.I.	P.	L.L.	G.I.	P.	L.L.	G.I.	P.	L.L.	G.I.
Pre-school	92	87-95	86-96	13	7-21	5-24	0	0-4	0-5	0	0-8	0-10
Not at School	0	0-2	0-2	10	5-17	4-20	1	0-5	0-6	0	0-8	0-10
Nursery School or Creche	5	3-8	3-10	1	0-5	0-6	0	0-4	0-5	0	0-8	0-10
Sub-standards	2	1-5	1-6	63	53-73	49-75	20	13-29	10-32	11	4-73	3-27
Stds. I - III	0	0-2	0-2	13	7-21	5-24	56	46-66	42-69	29	17-44	14-47
Stds. IV - VI	0	0-2	0-2	0	0-4	0-5	23	15-33	13-36	29	17-44	14-47
Higher Education	0	0-2	0-2	0	0-4	0-5	0	0-4	0-5	29	17-44	14-47
Unknown.	0	0-2	0-2	0	0-4	0-5	1	0-5	0-6	2	0-10	0-12
TOTAL.	100	100	100	100	100	100	100	100	100	100	100	100

We see that only 5% of the children under 5 years of age are attending nursery school or creches. It was found that 53% (P.) of the women in Orlando are in employment, and since a good proportion are mothers there is a great demand for more creches and nursery schools.

Of the children 6 - 10 it is found that 10% (P.) are not attending school. In many cases parents complained that they could find no schools to accept the children as all schools were overcrowded. Of the children 11 - 15, however, only 1% (P.) are not at school.

Of the persons over 16 we find a small proportion in the sub-standards. These are mostly persons who are attending night schools(3) and of those shown as pursuing

(3) In one of the Shelters investigated a blackboard was found. The owner explained that every night their neighbour, who was a man who could read and write, came over to teach three of the men living in the shelters.

"Higher Education" a good proportion are doing so by correspondence courses. Africans are fast realising that it is only by means of education that they will be able to make a suitable adjustment to Western society in which they are inevitably being incorporated, and there is a great demand amongst them for more educational facilities for both children and adults.

TABLE II (59).

Education of persons who have left School according to Age.

Age.	0 - 19			20 - 29			30 - 39			40 - 49			50 Plus			Unknown			TOTAL.		
	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.	P.	L.L.	C.L.
(4)																					
Inapp.	7	2-17	1-22	0	0-2	0-2	0	0-2	0-2	0	0-4	0-5	0	0-4	0-5	0	0-31	0-41	1	0-2	0-2
No. Educ.	0	0-8	0-10	19	14-25	13-26	29	24-35	21-37	41	31-51	29-54	59	49-69	45-71	0	0-31	0-41	31	29-34	27-35
Sub Stds.	3	0-13	0-16	6	3-10	2-11	8	5-13	4-14	13	7-22	6-23	8	4-15	3-18	50	17-81	12-88	8	7-10	6-11
1 - 3	37	24-53	21-56	26	21-33	19-33	19	14-25	13-26	15	9-24	7-26	12	7-20	5-22	0	0-31	0-41	21	19-23	18-25
4 - 6	46	32-63	24-65	34	29-40	26-42	30	25-36	23-36	17	10-26	8-29	14	8-23	6-25	0	0-31	0-41	27	24-30	24-31
Higher	3	0-13	0-16	10	7-15	6-16	9	6-13	5-15	10	5-17	4-20	3	1-8	0-10	0	0-31	0-41	8	7-10	6-11
Unknown	3	0-13	0-16	5	3-8	2-10	5	3-8	2-10	4	2-10	1-12	4	2-10	1-12	50	17-81	12-88	4	3-6	3-6
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Since educational attainment plays an important part in people's attitudes and aspirations, and therefore needs, the educational standing of persons in Orlando who have left school, is also examined.

The number of persons with "no education" increases as persons are older, the age group under 20 showing practically no persons who have had no education. Again less young persons appear to have left school after the sub-standards, than older people.

(4) Inapplicable refers to persons who are ill and could not, therefore attend school.

In all age groups the incidence of persons who left school after Std. I, II or III is smaller than that of those who completed Std. IV, V or VI. This indicates that when persons have passed the sub-standards they more often go through the higher standards than not.

As can be expected the age group under 20 shows only a small incidence of "higher education". This can be explained by the fact that persons who have left school at that age have not yet had much opportunity for higher education.

Considering the other age groups, we find that the incidence of higher education has increased in the latter years. Only a small proportion, however, 8% (P.), attain any higher education. Nevertheless there is a great demand for higher education and vocational training. In planning Housing for urban African communities the provision of creches, nursery schools, schools, training centres, community centres, and all centres of child and adult education is a factor requiring a great deal more attention than it has received in the past.

3. Health.

No information was collected in the Survey concerning the health of the population. This remains, however, a field in dire need of investigation for the Urban Bantu population appears to be generally unhealthy. An alarming number of T.B. cases were come across during the period of investigation. The T.B. hospitals are over-crowded and persons find it difficult to be admitted to them. In the meanwhile they live amongst their family. In a community which is poor, ill-fed and ill-clothed the disease spreads rapidly. A case in point is the following:-

A single shelter with no front built-on contained 12 persons. The head of the household and his wife both had T.B. and had papers from the Public Health Department to say that they were awaiting a bed in hospital. They had two of their children living with them, one who had already been diagnosed as having T.B. Living with them, and all sleeping in the one shelter, were a nephew and his wife and children, a sister and a friend.

Children's diseases are prevalent and rarely receive adequate attention.

Apart from definite diseases the general condition of persons is poor. Persons frequently complained to us about all kind of aches and looking at their sparse diet one was not surprised.

We came across much witchcraft. In the sample alone seven witchdoctors were found, and superstition is rife. In nearly every case of illness we came across someone in the household who stated that, of course, it was Native poison. Typical remarks were the following:-

"What more can I do? I have taken the child to the clinic to Dr. X to the Native doctor and he is still sick. Ah, but the Native poison is too strong! "

... "You don't know our Native people ... some are bad in their hearts, and sometimes, we don't know why they use Native poison on us. Look at so-and-so ..."

... or "I think I know who it is that was making me sick." In a society where there is so much ill-health and so much insecurity, it is no wonder that professions such as witchcraft prove lucrative.

CONCLUSION.

Finally in examining the inhabitants of Orlando it must be remembered that:-

"Men and women are not only themselves; they are also the region in which they were born, the city apartment or the farm in which they learnt to walk, the games they played as children, the wives' tales they overheard, the food they ate, the schools they attended, the sports they followed, the poets they read, and the God they believed in." (5)

(5)

Somerset Maugham - The Razor's Edge.

Quoted by E.J.Osborne - "Greenbelt Cities"!

PART III.

HOUSING.

GENERAL.

"Here is then the first principle of housing of whatever type or degree. Its first principle is to save and to store up our bodily and spiritual strength."

Eliel Saarinen.

Types of Dwellings:

The detached house is by far the most popular form of dwelling as repeated opinion polls in many countries have shown. It is considered to be the best means of housing the family adequately and in privacy. Its main advantages lie in the complete flexibility of the plan and layout, reduced contact with neighbours, and the fact that home-ownership becomes a simple matter. The disadvantages are the high costs due to the size of the plot, distance for streets and services (drainage, light, etc.) and the loss of urbanity which it entails. Yet at the present cost of building, relatively few people can adequately afford a detached house on a plot of ground large enough to ensure the privacy they seek.

Such schemes then degenerate to rows of small detached houses, with small frontages and narrow gaps between them, giving the unharmonious effect of awkward rigidity. And so in a plan for mass housing where the solution seeks to be as

economical/...

economical and efficient as possible, these should as far as possible be avoided.

The semi-detached house combines many of the advantages of the detached house, together with greater economy of services. It still allows for a variety of plans, but whilst leaving a larger facade than the detached, is still not essentially urban.

Terrace or row housing has been effectively used ever since the nineteenth century, though some of the inadequate schemes have resulted in there being much prejudice against it. Its main advantages lie in the low cost of production together with the harmonious visual effect which it can achieve.

Costs are reduced by the intensive use of land, the reduced cost of construction in party walls, finishes and roof ends, and the economy in the length of streets and the combination of services, e.g., drainage. Usually it provides the pleasing welcome effect of continuity.

"The continuous street," by reason of the very continuity of the house blocks, has at least an elementary form of unity, inherent in its form; and having this, the other qualities may be given to it. But in the street of detached and semi-detached houses, unity is precisely the quality that has been cast aside.

Every house or pair of houses in that street may be a perfect picture in itself, may have every quality of true picturesqueness, but if the whole street even gets within a hundred miles of being truly picturesque, it can only be a miracle of good luck. It is indeed practically impossible. Almost inevitably, by the spottiness and lack of

proper/...

proper relation to its individual components, a street of detached houses must have a restlessness, a disunity, that is anything but picturesque. Without a doubt it is only by building a continuous street formation that the town can be truly picturesque."⁽¹⁾

This is precisely what row housing properly planned does achieve.

Amongst the most effective types of row houses that exist is the Patio House.⁽²⁾ This "constitutes an attempt to find a new definition of the old theme of the relation between houses and gardens. Naturally, the garden of the small house - and this applies not only to the small house but also to the semi-detached and even the detached house - can be easily overlooked by neighbours on its right and left and consequently is somewhat poor."⁽³⁾ In the Patio House emphasis is laid on the garden as an extension of living space - what must be private and intimate as well as manageable. This is achieved by planning the houses in an "L" shape, whereby the houses join so as to form interior gardens or patios protected from sight. The houses enjoy light and ventilation from three sides, whilst the party walls contain no windows.

(1) Thomas Sharp - "Town Planning".

(2) See Segal - Home and Environment.

(3) Ibid.

This house lends itself to a more varied architectural treatment than the traditional type of terrace house and provides a three-fold sequence of open space -

- (1) The patio.
- (2) Individual garden in front of the patios.
- (3) Common green used for recreation.

Flats adhere most to the principle of the minimum of space to serve the maximum of benefit. They are planned to house the many and to house them as cheaply as possible. They possess the advantage of an open outlet, and are, if planned properly, together with reduction of cost both in erection and services. They provide opportunity for communal amenities on the spot and are an essentially urban concept. As Lewis Mumford has pointed out "To plan adequately for the dwelling houses, however, one must plan at the same time for all the communal institutions and functions which enable people to do in larger groups what they cannot perform as families. More and more in our time collective wealth takes the place of individual wealth - the library, the art gallery, the school, - bring to the poorest people resources which even the wealthy can merely afford". (4) When people are living in high densities, in concentrated space, this process is facilitated.

Our flats up to the present have remained largely an expedient method of solving congestion. But as Le Corbusier and others have pointed out, that need not be the case and flats, designed properly, should be situated in large parks and surrounded by large open spaces, possibly also providing garden allotments; which would provide the advantage of communal living together with the advantages of open space.

(4) Lewis Mumford - "City Development".

Some Opinions Concerning Dwellings:

Since houses are built for people, it is important for the planner to know what their preferences, opinions, views are on the subject. It does not mean to say that they are necessarily correct, but programmes need to be launched in order to educate persons that they may desire that which will prove to be the best for them.

The amalgamation of mass observation report the following result:

"Generally, single people, young married couples and middle-aged couples whose children have grown up and left home, prefer to live in flats, especially if communal services like hot water and rubbish disposal are offered.

Families with young children and old people prefer houses, especially single-storeyed houses because they dislike stairs, but neither of these parties like huge gardens because they cannot adequately look after them, either through lack of time or through their family".

In 1947 a survey of opinions concerning houses was carried out in France. (4)

"La plupart des personnes questionnees, appartenant cependant aux milieux les plus divers, habitent des maisons particulieres ce qui les amenes presque tous a desirer ce mode d' habitation". (4)

Having found that 72% of the persons questioned preferred a single detached house, they nevertheless concluded that this is due to the fact that people have little opportunity of living in other types of dwellings.

Mr. Manzoni in his contribution to Replanning Britain (5) makes the following comments on the subject:-

(4) Desires de Francois en Matiere d'habitation Urbaine Institut National
D'Etudes Demographiques.

(5) Replanning Britain.

"The wish for an individual cottage and a garden to cultivate is not innate in every human being, otherwise cities such as Stockholm would be altogether different and would be condemned as the worst towns in Europe, instead of being praised as examples to be emulated.

My own experience from over 100,000 of these modern twelve - to the - acre, is that a large number of their inhabitants do not want to cultivate a garden, although all, or nearly all, have an instinctive love for a garden and much prefer to live near one.

The true position seems to be that the internal convenience of a house, its situation near the man's place of work, its general outlook its proximity to shops, places of amusement and recreation which may or may not include open country, are the governing factors of choice, and not in a great many cases, the number of stories, the individual structure, the density or the position of a piece of land to cultivate.

I am convinced that there is a need for all types of dwellings each suited to its environment - individual cottages, terraced housing and tenement buildings - and experience proves that all types can be provided with excellent amenities at building densities respectively ranging from 60 to 100 persons per acre."

In Design of Dwellings (6) we find this remark -

"We are aware of the keen controversy of the house versus the flat. Our evidence shows that flats are unpopular with many sections of the community, particularly families with children. It also suggests that the principal reasons for this unpopularity are lack of privacy, the absence of a private garden, the difficulties of supervising children at play, and the necessary rule against keeping pets

On the other hand, as we have already indicated, a considerable proportion of the population are not members of families with children and here there is often a preference for flats. For instance, in Welwyn Garden City, where the demand

for /

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- (6) Report of the design of dwellings sub-committee of the Central Housing Advisory Comm. appointed by the Minister of Health (London 1944).

for flats might be expected to be very low, it is found that nearly 10% of the households prefer accommodation of this kind.

Our view is that while flats are open to many objections for families for children, they are less objectionable for other persons. There is need, therefore, for a mixed development of family houses together with blocks of flats for smaller households as suggested in the report on site planning and layout in relation to housing."

We can thus conclude that in planning for an urban community, all the various types of dwellings should be considered and should be used in accordance with the structure and needs of that community.

Housing under Tribal Conditions:

In order to understand all the implications involved in the planning of housing urban African communities, it is necessary to know and understand Bantu tribal structure. The extended family was the basic unit in society and housing was designed to satisfy its needs.

Each Bantu tribe had customs and variations affecting the layout and set out of housing peculiar to itself. Yet amongst the Bantu in general there are certain common trends which I shall try to indicate.

First amongst most tribes the extended family is the basic unit in society, and the house structure is designed in order to satisfy the needs of the family in

accordance /

accordance with the many rules governing relationship of persons within the family.

The housing unit consists of a kraal or village of several units, usually arranged in a ring around a central courtyard or a series of inter-connected courtyards.

SLEEPING:

The head of the household has his own hut; each wife has her hut where she sleeps with the youngest child: there is a hut for the young girls and another for the young boys. The head's mother, if a widow, will live with her son and have her hut where she sleeps with one or more of the younger children (those who have been weaned). Often the old mother will make use of the kitchen hut for sleeping, probably because of the warmth it contains. The head's younger brothers may have their huts within the same village but usually after their wives have borne children they will move away and found a new village where they are heads and have the say! In some villages there will be an additional hut for visitors.

FOOD:

Each wife has her field which she tills and cultivates. She stores her crops in a granary which takes the form of a miniature hut at the side of her hut. Each wife prepares and cooks food bringing a plateful each to the head.

Amongst many tribes there is a special hut within the village which is the equivalent to the kitchen, where the younger wives (not yet independant), come and cook. Once a wife gains her independence (having borne many children and acquired status) she can establish a separate hut near here where she does her cooking and cooks separately outside her hut. Amongst other tribes, e.g., the Shangean, these additional "kitchen

huts/...

huts" do not exist, each wife cooking in the open courtyard in front of her hut (the courtyard is enclosed by reeds) or in rainy weather in the centre of her sleeping hut.

There is no specially constructed or defined eating space in the Bantu Village. For eating, members of the family will divide into age groups and sex groups. The head will eat together with other initiated men away from the women. The women will sit together and eat, intermediately feeding the younger children who run around from their own plates. The young girls will cluster in a group and eat whilst food is put aside (often in the kitchen hut) for the young boys who will come and eat when they so desire. Although each wife cooks for every meal there is no strict adherence to eating their own food. "It is impossible to imagine a more perfect communism than this as regards food." (7)

WATER:

Water is usually fetched from the nearest river or spring by the young girls. They fetch a supply in their earthen pots and paraffin tins carried on their heads, once or twice a day. As the distance to the river or spring are often great, it can be understood that water is used sparingly and with care in a Native village.

WASHING:

Washing and bathing takes place at the river. Clothing is rubbed clean on smooth rocks and spread out to dry nearby.

STORAGE:

Crops are stored in specially constructed granaries. In addition, there may be a hut used only for storing implements.

SANITATION/...

SANITATION:

No provision is made within the village for sanitation, but each village has its defined koppie or donga used for this purpose.

CATTLE:

Amongst all Bantu tribes cattle are inherent to their culture, playing an important role in ritual, marriage, status and in economy. The cattle kraal thus constitutes an essential part of the Bantu village. Amongst the Nguni and Shangaan the cattle kraal is situated in the centre of the village and is constructed of a ring of thorny branches, or piled up stones. The cattle are entirely the responsibility of young boys under the supervision of the men.

CONSTRUCTION:

The huts are generally circular in shape (although the rectangular shape is fast gaining popularity), and are built of local material. The Pedi, Venda and Shangaan huts (Northern Transvaal Tribes) are made of a frame-work of wood or reed poles covered with clay walls, whilst the Southern Sotho use loosely packed stones plastered with clay. These huts are covered, very successfully, by a conical thatched roof, built of a frame-work of flexible timber covered with grass. The Zulu hut is hemispherical and is constructed entirely of grass attached to a wooden or reed framework.

The floors of the Bantu hut are generally smoothly smeared with cow dung or a mixture of cow dung and ox blood, which can be beautifully polished. This provides a warm and pleasant floor covering which however requires much hard work on the part of the women for it is constantly being worn away and needs to be frequently resmeared.

It is furthermore unhealthy in that it often harbours worms causing skin diseases and provides a good medium for the breeding of all sorts of germs.

The courtyards are usually beaten hard and the Sotho in particular are fond of enclosing them by built up earthen walls.

The walls of the huts are often decorated with most striking geometrical designs which may be scratched on the clay wall surface (Sotho) or printed on in various colours (Ndebele, Shangaan hut interiors).

The whole pattern imposed by the Native village in its natural surroundings is one of charm, restfulness and harmony. The buildings have good proportions and afford sound dimensional contrasts, whilst the materials from which they are built blend with the environment. The whole has a sound, healthy, and harmonious character and is designed in such a manner as to serve efficiently the needs of the community for which it was built.

ORLANDO HOUSES:

"...The modern house is a biological institution. It is a shelter devoted primarily to the functions of reproduction, nutrition and recreation:" (Mumford, Lewis)

Let us examine the houses of Orlando and see to what extent they adequately fulfil their purpose.

Firstly, the types of houses will be discussed in relation to their rentals, their density and the type of households they shelter.

We will then investigate some of the housing habits of the inhabitants, the use of the rooms and the allocation of sleeping accommodation.

Lastly, the attitude of Orlando persons to their houses with specific reference to questions answered concerning stoeps, kitchens, washing and storage facilities will be discussed.

ORLANDO EAST.

W. F. TILLET. 1930.

TYPE J1 BRICK HOUSE.



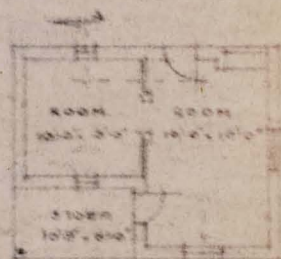
SECTION A-A.



ELEVATION.

DATA.

AREA OF HOUSE.	397 SQ. FT.
COST PER HOUSE.	£85 - 2 - 6
COST PER SQ. FT.	5 - 2 1/4
COST OF SERVICES.	£38 - 12 - 7
COST OF LAND.	£11 - 3 - 5
TOTAL COST.	£125 - 3 - 8 1/4
MONTHLY RENTAL.	17 - 4



PLAN.

CONSTRUCTION.

FOUNDATIONS. • CONVENTIONAL 4' x 3' MIN. CONCRETE & 14" BRICK OVER.

FLOORS. • EARTH.

WALLS. • 11" CAVITY - FACE BRICK EXTERNALLY - STOCK BRICK INTERNALLY.

DOOR. • CORRUGATED IRON ON 4" x 3" WOOD PURLINS.

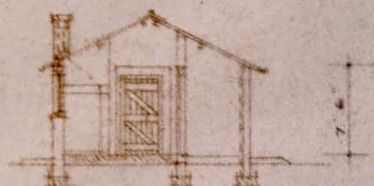
FINISHES. • DOORS EXTERNALLY ONLY. WALLS ONE COAT PLASTER. WINDOWS STEEL. NO CEILINGS. EC SUPPLIED.

CITY OF JOHANNESBURG. CITY ENGINEERS DEPT.

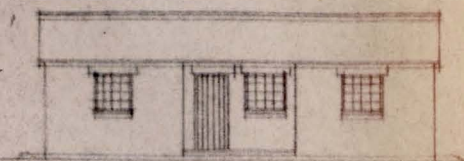
ORLANDO EAST.

W. F. TILLET, 1930.

TYPE L1 BRICK HOUSE.



SECTION A-A.



ELEVATION

DATA

AREA. OF HOUSE. 532 SQ. FT.

COST PER HOUSE. £115 - 2 - 6.

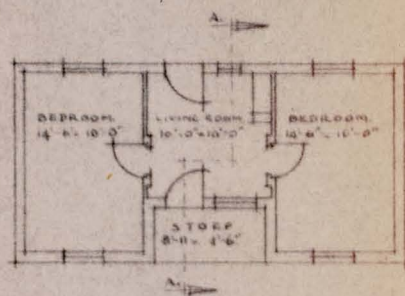
COST PER SQ. FT. 4 - 3/4

COST OF SERVICES. £38 - 12 - 7.

COST OF LAND. £1 - 3 - 5.

TOTAL COST. £153 - 2 - 3/4.

MONTHLY RENTAL. £1 - 1 - 8.



PLAN.

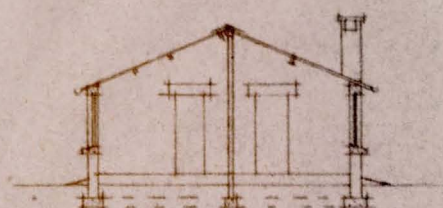
CONSTRUCTION.

- FOUNDATIONS. • CONVENTIONAL 4:2:1 MIX CONCRETE & 1 1/4" BRICK OVER.
- FLOORS. • EARTH OR 9" x 9" QUARRY TILES ON SAND BED.
- WALLS. • 11" CAVITY - FACE BRICK EXTERNALLY. - STOCK BRICK INTERNALLY.
- ROOF. • CORRUGATED IRON ON 4 1/2" x 3" WOOD PURLINS.
- FINISHES. • DOORS EXTERNALLY ONLY, WALLS ONE COAT PLASTERED. WINDOWS STEEL. NO CEILINGS. E.C. SUPPLIED.

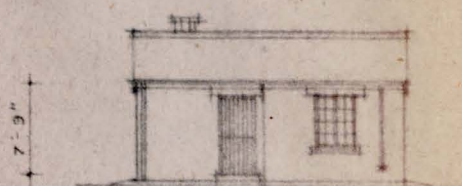
ORLANDO EAST.

W. F. TILLET 1930.

TYPE K. I. BRICK HOUSE.



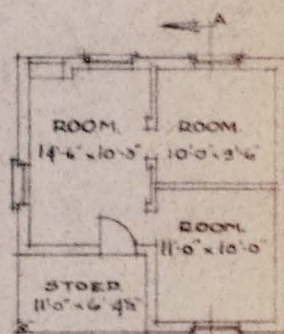
SECTION A-A.



ELEVATION.

DATA.

AREA OF HOUSE	512 SQ. FT.
COST PER HOUSE	£100 - 10 - 0.
COST PER SQ. FT.	4 - 10 1/2.
COST OF SERVICES.	£ 38 - 12 - 7.
COST OF LAND.	£ 1 - 3 - 5.
TOTAL COST.	£140 - 10 - 10 1/2.
MONTHLY RENTAL.	£ 1 - 1 - 8.



PLAN.

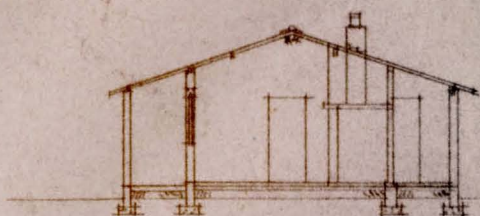
CONSTRUCTION.

- FOUNDATIONS. • CONVENTIONAL 4:2:1 MIX CONCRETE & 14" BRICK OVER
- FLOORS. • EARTH.
- WALLS. • 11" CAVITY - FACE BRICK EXTERNALLY, STOCK BRICK INTERNALLY.
- ROOF. • CORRUGATED IRON ON 4 1/2" x 3" WOOD PURLINS.
- FINISHES. • DOORS EXTERNALLY ONLY, WALLS ONE COAT PLASTER, WINDOWS STEEL, NO CEILINGS, EC. SUPPLIED.

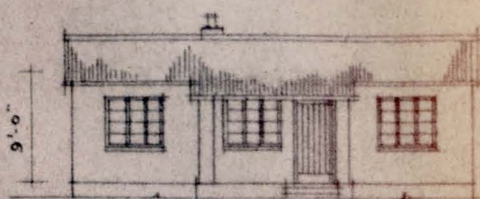
ORLANDO WEST.

TYPE C.3. HOUSE.

E. A. SAYLE AND SON. 1944.



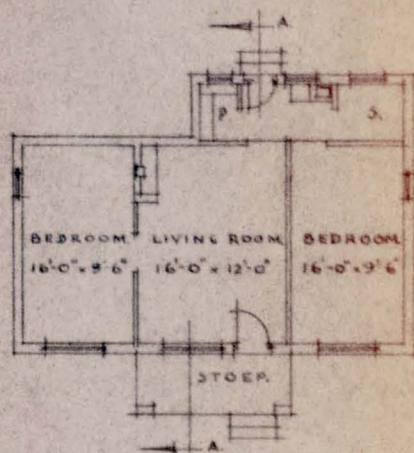
SECTION A-A.



ELEVATION.

DATA.

AREA. OF HOUSE, + E.C.	714.5 SQ. FT.
COST PER HOUSE, + E.C.	£ 396-10-0.
COST PER SQ. FT., + E.C.	11-1.
COST OF SERVICES.	£ 338-2-1.
COST OF LAND.	£ 2-0-0.
TOTAL COST.	£ 737-3-2.
MONTHLY RENTAL.	£ 1-15-0.



PLAN.

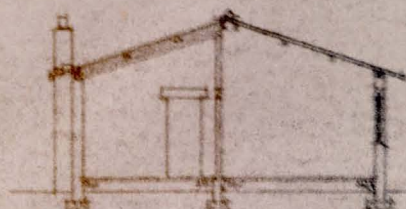
CONSTRUCTION.

- FOUNDATIONS. • CONVENTIONAL 4' 2" 1. MIX CONCRETE & 14" BRICK OVER.
- FLOORS. • 8" 2" 1. ASHCRETE WITH GRANO TOPPING OR 9" x 9" QUARRY TILE ON SAND BED.
- WALLS. • 11" CAVITY-FACE BRICK EXTERNALLY - STOCK BRICK INTERNALLY.
- ROOF. • CORRUGATED IRON ON 4 1/2" x 3" WOOD PURLINS.
- FINISHES. • DOORS EXTERNALLY ONLY. WALLS ONE COAT PLASTER. WINDOWS STEEL. NO CEILINGS. SINK, E.C. SHOWER & 2" CONCRETE PANTRY SHELVING SUPPLIED.

ORLANDO WEST

TYPE D.I. HOUSE

E. A. SAYLE AND SON. 1944.



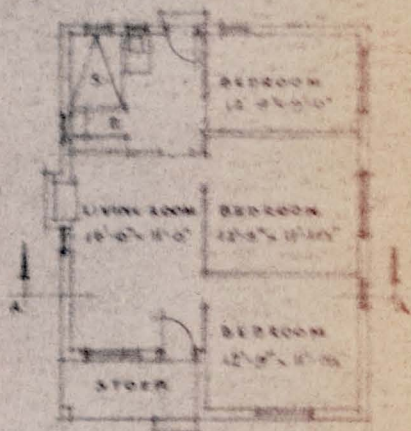
SECTION A-A



ELEVATION

DATA.

AREA OF HOUSE, + EC.	873 SQ. FT.
COST PER HOUSE + EC.	£ 465-16-10
COST PER SQ. FT. + EC.	10-8
COST OF SERVICES.	£ 358-2-1
COST OF LAND.	£ 2-0-0
TOTAL COST.	£ 806-9-7
MONTHLY RENTAL.	£ 2-10-0



PLAN

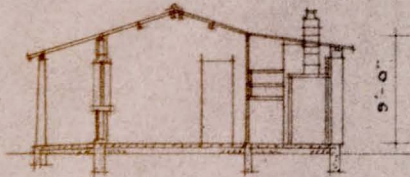
CONSTRUCTION.

- FOUNDATIONS. • CONVENTIONAL 4" x 11" MIX CONCRETE & 14" BRICK OVER
- FLOORS. • 8" 2:1 L ASHCRETE WITH GRAND TOPPING OR 3" x 9" QUARRY TILE ON SAND BED.
- WALLS. • 11" CAVITY-FACE BRICK EXTERNALLY-STOCK BRICK INTERNALLY.
- ROOF • CORRUGATED IRON ON 4" x 5" WOOD PURLINS.
- FINISHES. • DOORS EXTERNALLY ONLY. WALLS ONE COAT FLASER. WINDOWS STEEL. NO CEILING. SINGLE SHOWER & 2" CONCRETE PANTRY SHELVING SUPPLIED.

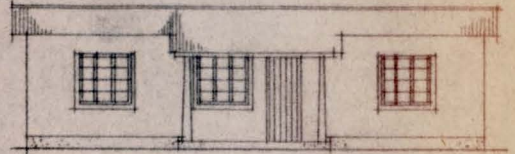
CITY OF JOHANNESBURG. CITY ENGINEERS DEPT.

ORLANDO WEST.

ANDERSON CONSTRUCTION CO., 1945.



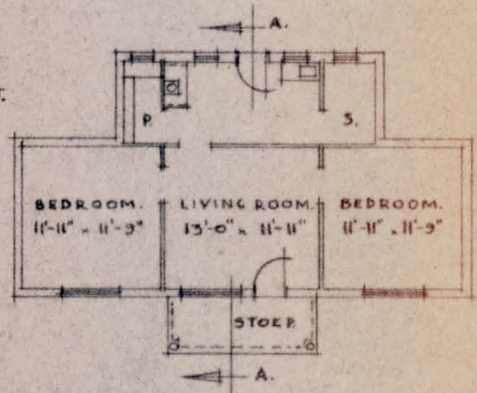
SECTION A-A.



ELEVATION.

DATA.

AREA. OF HOUSE.+EC.	69.550FT.
COST PER HOUSE.+EC.	£370-14-2.
COST PER SQ. FT.+E.C.	10-8.
COST OF SERVICES.	£329-0-0.
COST OF LAND.	£4-0-0.
TOTAL COST.	£704-4-10.
MONTHLY RENTAL.	£1-15-0.



PLAN.

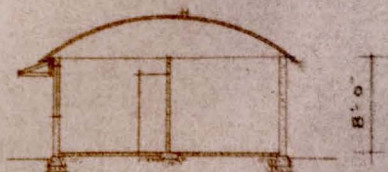
CONSTRUCTION.

- FOUNDATIONS. • CONVENTIONAL 4:2:1 MIX CONCRETE & CONCRETE SLABS OVER FILLED WITH CONCRETE FIRST COURSE.
- FLOORS. • 8:2:1 ASHCRETE WITH GRANO TOPPING OR 9'x9" QUARRY TILE ON SAND BED.
- WALLS. • PATENT HORIZONTAL PRECAST CONCRETE SLABS FORMING 8" CAVITY WALLS, OUTER & INNER SKINS 1½" THICK.
- ROOF. • CORRUGATED IRON ON 4½"x3" WOOD PURLINS.
- FINISHES. • DOORS EXTERNAL ONLY. WALLS NATURAL FINISH COLOUR WASHED INTERNAL & EXTERNAL. WINDOWS STEEL. NO CEILINGS SINK, E.C. SHOWER & 1" CONCRETE PANTRY SHELVING SUPPLIED.

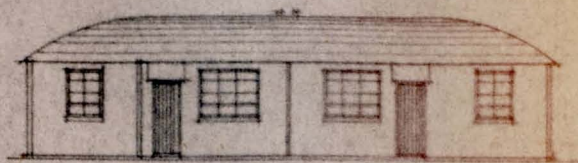
CITY OF JOHANNESBURG, CITY ENGINEERS DEPT.

ORLANDO WEST

ROBERTS CONSTRUCTION CO. 1946.



SECTION. A-A



ELEVATION.

DATA.

AREA. OF HOUSE. + EC. 8875 SQ. FT.

COST PER HOUSE. + EC. £ 546-0-0.

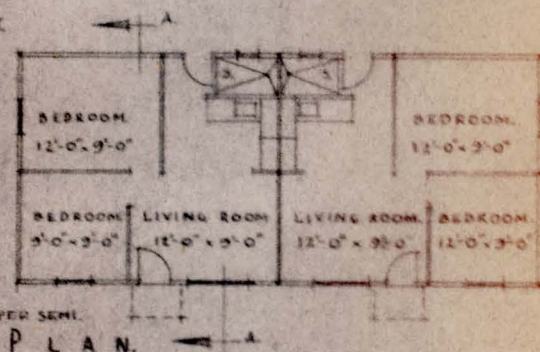
COST PER SQ. FT. + EC. 12-3.

COST OF SERVICES. £ 415-0-0.

COST OF LAND. £ 4-0-0

TOTAL COST. £ 961-12-3

MONTHLY RENTAL. £ 1-12-6 PER SEM.



CONSTRUCTION.

FOUNDATIONS. • CONVENTIONAL 4:1:1 MIX CONCRETE. 9" CONCRETE WALLING OVER.

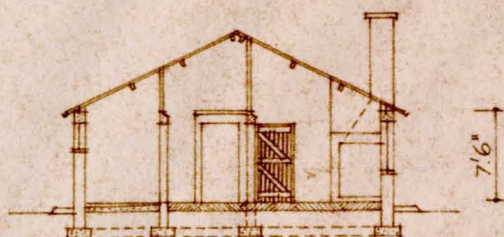
FLOORS. • CONCRETE WOOD FLOATED.

WALLS. • 6" NO-FINES CONCRETE WITH 1/2" SCREEDING INTERNAL & EXTERNAL CAST ON FLOORS & LIFTED INTO POSITION IN SECTIONS. INTERSECTIONS FILLED IN WITH CONCRETE IN SITU. INTERNAL WALLS 8'-0" HIGH ONLY.

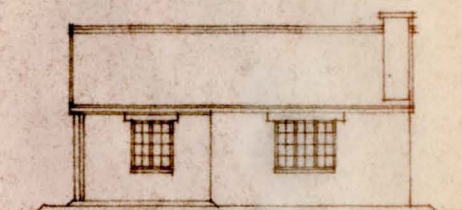
ROOF • 2" REINFORCED CONCRETE DOME ROOF CAST IN SITU & WATERPROOFED.

FINISHES. • DOORS EXTERNALLY ONLY. WALLS AS CAST & LIMEWASHED INTERNAL & EXTERNAL. WINDOWS STEEL. NO CEILINGS. SINK. E.C. SHOWER & 2" CONCRETE PANTRY SHELVING & STOVES SUPPLIED.

ORLANDO WEST.



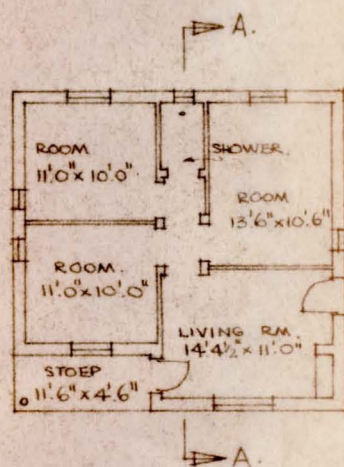
SECTION A-A



ELEVATION.

DATA.

AREA OF HOUSE. 722 SQ. FT.
MONTHLY RENTAL. £1-8-2.



PLAN.

CONSTRUCTION.

- FOUNDATIONS • CONVENTIONAL 4:2:1 MIX CONCRETE & 11" CAVITY FILLED WITH CONCRETE UP TO F.L.L. OVER.
- FLOORS • EARTH.
- WALLS • 11" CAVITY - FACE BRICK EXTERNALLY - STOCK BRICK INTERNALLY.
- ROOF • CORRUGATED IRON ON 4 1/2" x 2" WOOD PURLINS.
- FINISHES • DOORS EXTERNALLY ONLY. WALLS ONE COAT PLASTER. WINDOWS STEEL. NO CEILINGS. E.C. SUPPLIED.

A. TYPES OF HOUSES.

The sample investigation revealed the following proportion of houses for each type: (1)

TABLE III (1)

THE DISTRIBUTION OF HOUSES IN ORLANDO
ACCORDING TO HOUSE TYPE AND RENTAL.

Type of House	Rental	Percentage Incidence.		
		P.	L.I.	O.I.
Single Shelter	5/-	31	25 - 37	23 - 36
Double Shelter	10/-	3	1 - 5	0 - 5
2-roomed	17/4d.	36	30 - 42	28 - 44
Old 3-roomed	£1. 1.8d.	17	13 - 23	11 - 24
Old 4-roomed	£1. 8.2d.	2	0 - 4	4 - 5
New 3-roomed				
Semi-detached	£1.12.6d.	3	1 - 5	0 - 6
New 3-roomed				
detached	£1.15.0d.	4	1 - 6	0 - 7
New 4-roomed	£2.10.0d.	4	1 - 6	0 - 7
All Houses & Rentals		100	100	100

An examination of the house plans reveals the following general factors concerning the houses:-

(1) In none of the houses are ceilings provided although roofing material is zinc for all the houses except for the 3-roomed semi-detached houses which have rounded concrete roofs.

(2) All the houses are provided with pail closets situated in a corner of the back yard.

(3) With the exception of Anderson house 1945 none of the houses makes separate provision for cooking, but all combine the kitchen-living room.

(1) The proportions will have changed by now, as Orlando has since obtained new houses. These proportions are true for the houses occupied at the 31.1.48 when the sample was chosen.

(4) No house type makes provision for a proper bathroom. In the new three- and four-roomed houses provision is made for a washing place to be supplied with a cold water shower. (These had not as yet been inlaid in the three-roomed semi-detached houses and detached houses of Orlando West II at the time of the survey.)

(5) The "new" houses make provision for a sink and tap situated in the kitchen-living room.

Considering the house types individually, the following points are to be noted:-

(1) Nearly a third of the dwellings of Orlando are temporary breeze block shelters erected as an emergency measure to house the Shanty Town squatters. They remain completely inhuman habitations with no pretence at adequately fulfilling the purpose of a house. No windows, doors or flooring were provided, but they were allocated, one room per family, to squatters, who improved them as best they could. Communal latrines are provided on the outskirts of the block of shelters, and a tap is situated at the end of each block of shelters. Occasionally, when a family was found to be abnormally large, two shelters were allocated, and these comprise the small proportion of double shelters paying a monthly rental of 10/-.

(2) Over a third of the dwellings of Orlando are 2-roomed 17/4d. per month houses. These houses literally consist of two rooms, no separate provision being made for cooking, washing or storage. The one room is provided with a chimney and hearth for the stove, thus fulfilling the function of kitchen-living room and most commonly bedroom, bathroom, and storeroom as well.

There are 405 taps for the 5,891 houses of Orlando East, giving an average of 1 tap for 12 houses. These are situated on the pavements, and water has to be fetched from there for all household purposes.

(3) Much the same remarks apply to the old 3-roomed houses in Orlando East. In Orlando West I, the old 3-roomed and 4-roomed houses are each provided with a tap in the yard.

(4) The new 3-roomed and new 4-roomed houses (7% of the sample) are supplied with kitchen sinks and taps as well as a bathing cubicle with a shower and a tap in the back yard. They further have storage space in the form of a small pantry supplied with concrete shelves.

(5) The new 3-roomed houses type ⁽¹⁾ have a small cooking recess divided off from the main livingroom. The same washing and storage facilities are to be provided as in the previous type (see No. 4.).

(6) The new semi-detached houses comprising 3% of the sample, are constructed entirely of prefabricated concrete slabs. The internal walls do not reach the roof which is rounded; thus little privacy between rooms is achieved. This is further accentuated by the fact that no internal doors are provided.

In these houses no pantry is provided, but concrete shelves have been built under the sink. Stoves have been provided.

The Density of the Houses

The following table gives as the average density per house according to the type of house. For this purpose all the four-roomed houses have been grouped, the same having been done for the three-roomed houses.

(1) Anderson Construction Co. 1945.

TABLE III. (2)

AVERAGE DENSITIES OF HOUSES.
ACCORDING TO TYPE OF HOUSE.

<u>Type of House</u>	<u>Average Density</u>		
	<u>2.</u>	<u>14</u>	<u>21</u>
Shelter	4.60	4.29 - 4.91	4.19 - 5.01
Two-roomed	5.29	4.8 - 5.78	4.64 - 5.93
Three-roomed	5.8	5.11 - 6.49	4.9 - 6.7
Four-roomed	6.93	5.46 - 8.40	4.99 - 8.87
All Houses	5.38	5.05 - 5.71	4.94 - 5.82

Since an average of 5.38 (2) persons per household was obtained from a sample investigation, in considering the density of the houses according to the size of households, the division was thus made between houses containing 5 persons or less and houses containing 6 persons or more. It was further found necessary to group the houses according to the number of rooms provided irrespective of rentals, since some of the type-rental groups of houses comprise such a small proportion of the sample.

TABLE III (3)

HOUSEHOLD DENSITY ACCORDING TO
THE SIZE OF THE HOUSE.

Type of House	<u>Size of Household in Percentages.</u>					
	<u>5 Persons and under</u>			<u>6 Persons and over</u>		
	P.	L.L.	O.L.	P.	L.L.	O.L.
Shelter	69	59 - 79	55 - 82	31	21 - 41	17 - 45
2-roomed	54	44 - 65	40 - 68	46	35 - 57	32 - 60
3-roomed	43	30 - 56	26 - 60	57	44 - 70	40 - 74
4-roomed	36	11 - 61	3 - 69	64	39 - 89	31 - 97
All Houses	55	49 - 62	47 - 63	45	38 - 42	36 - 53

The above table would seem to indicate a definite tendency for larger houses to contain more persons than smaller houses, i.e. the density per house seems to go up as the number of rooms increases. The width of the margins of approximation warns us against too definite a conclusion:

The Types of Households contained:

A variety of household types are found in Orlando. One would find households consisting only of the tenant and his immediate family. Thus the Tenant Natural Family (T.N.F.). The term Extended Family refers to the tenant family plus dependents such as old parents, unmarried brothers and sisters, nieces and nephews, etc. Thirdly, some of the households contain married relatives. These are termed "T.N.F. + R.F." Lastly, there are households containing sub-tenants, i.e. persons not related to the head. One further finds combinations of these types of households⁽²⁾

(2) For definition of each type see Appendix

Of interest is the relationship between the type of house and the type of household it contains (3).

TABLE III (b).
THE DISTRIBUTION OF TYPES OF HOUSEHOLDS
IN ORLANDO.

<u>TYPE OF HOUSEHOLD</u>	<u>PERCENTAGE DISTRIBUTION</u>		
	<u>P.</u>	<u>L.L.</u>	<u>G.L.</u>
Tenant Natural Family	37	31 - 43	29 - 45
Extended Family	30	24 - 36	22 - 37
T.N.F. plus Relative Family	13	8 - 17	7 - 18
Extended Family and Relative Family	8	5 - 12	4 - 14
T.N.F. and Sub-Tenants	7	4 - 10	3 - 11
Extended Family and Sub-Tenants	4	1 - 6	0 - 7
T.N.F. plus Relative Family plus Sub-Tenants	0	0 - 1	0 - 2
Extended Family plus Relative Family plus Sub-Tenants	1	0 - 4	0 - 5
All Households	100	100	100

We find that of all the types of households in Orlando, the Tenant Natural Family probably predominates. It is followed closely, however, by the Extended Family which comprises nearly a third of the households of Orlando.

The Tenant Natural and Extended Families with Relative Families provide a third of 22% (P.) of the households, whilst the Tenant Natural and Extended

(3) For this purpose the types of houses have again been condensed to the type according to the number of rooms it contains.

Families plus Sub-Tenants comprise only 11% (P.) of the households of Orlando.

Not more than 2% (taking a 1% risk of error) of the households of Orlando fall into the category T.N.F. plus Relative Family plus Sub-Tenants and not more than 5% (taking a 1% risk of error) of the households of Orlando consist of the Extended Family plus Relative Family plus Sub-Tenants.

TABLE III (5).

THE DISTRIBUTION OF TYPES OF HOUSEHOLDS
IN THE SHELTERS.

<u>TYPE OF HOUSEHOLD</u>	<u>PERCENTAGE INCIDENCE.</u>		
	P.	I.L.	G.L.
Tenant Natural Family	15	34 - 57	31 - 60
Extended Family	25	15 - 34	12 - 37
T.N.F. plus Relative Family	13	6 - 21	3 - 23
Extended Family + Relative Family	7	1 - 12	0 - 14
T.N.F. + Sub-Tenants	4	0 - 8	0 - 7
Extended Family + Sub-Tenants	4	0 - 8	0 - 7
T.N.F. + Relative Family + Sub-Tenants	1	0 - 4	0 - 5
Extended Family + Relative Family + Sub-Tenants	1	0 - 4	0 - 5
All Households	100	100	100

The shelters show a higher probable incidence of Tenant Natural Families than the entire population.

Persons in the shelters whose space is so limited soon learn to extend their families by taking in dependant relatives than the whole population.

The incidence of relative Families remains 20% (P.) as compared with 22% (P.)

in the whole population.

Sub-Tenants occur in 10% (P.) of the shelter households as compared with 12% (P.) for all households of Orlando.

TABLE III (6).

DISTRIBUTION OF TYPES OF HOUSEHOLDS
IN 2-ROOMED HOUSES.

<u>TYPE OF HOUSEHOLD</u>	<u>PERCENTAGE INCIDENCE.</u>		
	<u>P.</u>	<u>L.L.</u>	<u>O.L.</u>
Tenant Natural Family	37	27 - 48	24 - 51
Extended Family	29	19 - 39	16 - 42
T.N.F. + Relative Family	10	3 - 16	1 - 18
Extended Family + Rel. Family	13	6 - 21	4 - 23
T.N.F. + Sub-Tenants	7	2 - 13	0 - 15
Extended Family + Sub-Tenant	4	0 - 8	0 - 9
T.N.F. + Relative Family + Sub-Tenant	0	0 - 4	0 - 5
Extended Family + Relative Family + Sub-Tenants	0	0 - 4	0 - 5
All Households	100	100	100

The 2-roomed houses show a similar distribution of household types as that for all the houses of Orlando.

A slightly lower incidence of Tenant Natural Families plus Relative Family occurs, but a slightly higher incidence of Extended Families with Relative Families is found.

TABLE III (7).

DISTRIBUTION OF THE TYPES OF HOUSEHOLDS
IN THE 3-ROOMED HOUSES.

TYPE OF HOUSEHOLD	PERCENTAGE INCIDENCE		
	P.	L.L.	O.L.
Tenant Natural Family	34	22 - 46	18 - 50
Extended Family	2	20 - 44	16 - 48
T.N.F. + Relative Family	16	6 - 26	3 - 29
Extended Family + Relative Family	5	0 - 11	0 - 13
T.N.F. + Sub-Tenants	9	2 - 16	0 - 19
Extended Family + Sub-Tenants	2	0 - 5	0 - 6
T.N.F. + Relative Family + Sub-Tenants	0	0 - 8	0 - 10
Extended Family + Relative Family + Sub-Tenants	2	0 - 5	0 - 6
All Households	100	100	100

The proportion of Tenant Natural Families has probably decreased a little in the 3-roomed houses. The incidence of Tenant Natural Families with Relative Families is probably higher than that of the entire population.

The proportion of Sub-tenants probably remains much the same as in all households.

TABLE III (C).
DISTRIBUTION OF TYPES OF HOUSEHOLDS
IN THE 4-ROOMED HOUSES.

<u>TYPE OF HOUSEHOLD</u>	<u>PERCENTAGE INCIDENCE</u>		
	<u>P.</u>	<u>L.I.</u>	<u>C.I.</u>
Tenant Natural Family	0	0 - 22	0 - 31
Extended Family	50	24 - 76	16 - 85
T.N.F. + Relative Family	14	0 - 33	0 - 38
Extended Family + Relative Family	7	0 - 21	0 - 25
T.N.F. + Sub-Tenants	14	0 - 33	0 - 38
Extended Family + Sub-Tenants	7	0 - 21	0 - 25
T.N.F. + Relative Family + Sub-Tenants	0	0 - 22	0 - 31
Extended Family + Relative Family + Sub-Tenants	7	0 - 21	0 - 25
All Households	100	100	100

The width of the "limits" makes it dangerous to generalise on these figures.

CONCLUSION:

A comparison of the four previous tables indicates:-

- (1) A probable tendency for the larger houses to take in more Sub-Tenants than the smaller houses.
- (2) That persons with larger houses are more willing or able to take in dependant relatives than persons with small houses.
- (3) That in the shelters where little accommodation is available, the Tenant Natural Family predominates, whereas in the 3-roomed and probably the 4-roomed the incidence of the Tenant Natural Family has decreased considerably, other persons having been included in the household.

B. HOUSING HABITS.

In the investigation of Orlando an attempt was made to find how persons accommodated themselves to the space at their disposal - what are the most frequent uses of the kitchen - how are the other rooms usually utilised? What number of persons sleep in each of the rooms according to house type and size of the household.

In the majority of urban Native housing schemes we find that no separate provision is made for the kitchen, but as pointed out when discussing the house types, one relatively large kitchen-livingroom is provided in the front portion of the house. This arrangement is motivated primarily by the fact that it is economical and further it is commonly maintained that Natives would prefer this arrangement. Where they can entertain their guests around the cooking pot! It is, therefore, interesting to see to what use this kitchen-livingroom is commonly put. For this purpose all four-roomed houses have been grouped together, the same having been done for three-roomed houses and for shelters.

TABLE III (c).

USE OF KITCHEN ACCORDING TO TYPE OF HOUSE.

Use of Room	4-roomed.			3-roomed.			2-roomed.			Shelters.			Total.	
	P.	L.L.	O.L.	P.	L.L.	O.L.	P.	L.L.	O.L.	P.	L.L.	O.L.	P.	O.L.
Kitchen	50	23-76	18-32	29	17-43	14-46	0	0-4	0-6	0	0-4	0-6	10	7-15
K/Lr.	7	0-34	0-43	23	25-33	13-36	36	9-25	7-27	0	0-4	0-6	12	8-17
K/Br.	29	8-53	5-63	27	18-37	17-40	0	0-8	0-10	0	0-4	0-6	8	5-13
K/Lr/Br.	0	0-23	0-31	16	7-28	5-32	81	71-88	69-19	32	23-43	21-44	44	39-54
Lr./Br.	0	0-23	0-31	0	0-8	0-10	0	0-8	0-10	65	55-74	52-76	22	17-27
Other*	14	2-22	1-31	5	2-11	2-13	4	2-11	1-12	3	1-7	1-9	4	2-10
TOTALS:	100	100	100	100	100	100	100	100	100	100	100	100	100	100

* Included in "Other" uses we find -

Kitchen/diningroom (with separate sittingroom).

Kitchen/dining/sleeping.

Kitchen/dining/sittingroom.

L/Br./Shop.

Br./Shop.

The width of the margins makes it dangerous to draw any decisive conclusions for the four-roomed houses. The table would seem to indicate, however, the existence of a rough trend for the kitchen-livingroom to be used as a kitchen only, almost exclusively in the large houses, i.e. 3- and 4-roomed.

Since the shelters consist of only one main room with an improvised front built on, it is only natural that they should show no incidence of "kitchen only".

The opposite trend is evident in the use of the first room as kitchen-livingroom and bedroom. We find that in the two-roomed houses the greater proportion make this maximum use of the room. This is almost inevitable the moment a family with children occupy the house. Nearly 1/3 of the households in the shelters probably use their shelters for all three purposes - cooking, living and sleeping; but of interest is the finding that over 2/3 (P.) of the households in the shelters have made other arrangements for cooking, keeping their shelter for the purposes of living and sleeping only.

Of all the houses the bulk (44%) (P.) use the kitchen for all these purposes - living, sleeping and eating. To be noted is the fact that only 12% (P) of the households of Orlando are found to be using the first room exclusively for its intended purpose, i.e. as a livingroom-kitchen. It is the 3-roomed houses that appear to have the largest number of persons keeping this room as a livingroom/diningroom. Only 10% (P) are able to have this room exclusively for cooking, although - judging from conversations with them - this is the aim of many.

Let us further examine the use of room 1, according to the size of the household.

It thus appears that probably as many as 62% of the second, third and fourth rooms and verandahs are used as bedrooms only whilst 10% (P) serve as both livingroom and bedroom.

Since the houses are designed with Room 1 as the kitchen, none of the sample houses returned any of the other rooms as kitchens. There are a few cases in the Township, however, where persons have moved the stove into another room in order to use Room 1 as a livingroom; but this number of persons is likely to remain very small.

The Shelters return 47% of their "fronts" as being used for cooking only, whilst 38% are used for both cooking and sleeping. The 8% incidence of 'bedroom only' consist exclusively of the second rooms of double shelters. The small percentages shown as "Other" use, is made up of a few illegal shops harboured in the "front" section and an improvised school (4), for which both the shelters and the front were being used.

Of the enclosed verandahs only a small proportion were being used as only a bedroom. Under "other" uses are included a majority number that were used only as storerooms (the houses make no provision for general storage), a few used only as illegal shops, and one used only as sitting-room.

By far the majority of 'rooms other than Room 1' are used only as bedrooms, though as many as 20% (P) of the second rooms are shown to be used as livingrooms as well as bedrooms.

(4) The school has grown to such an extent that it overflowed into the narrow passage between the shelters and later on an open spot near the shelters. The shelter used for this purpose had the advantage of being situated at the very end of the shelters.

A small proportion are used for "other" purposes. This includes a few using one of the rooms as a livingroom only, sittingroom only, diningroom and sittingroom/bedroom.

TABLE III (12).

USE OF ROOMS 2, 3, 4 AND VERANDAH. ACCORDING
TO THE SIZE OF THE HOUSEHOLD.

Use of Room.	Percentage Incidence in Size of Households.					
	<u>5 and under.</u>			<u>6 and over.</u>		
	P.	L.L.	C.L.	P.	L.L.	O.L.
Lr/Br.	5	2 - 11	2 - 13	12	8 - 17	7 - 18
K. only	16	9 - 25	7 - 27	6	3 - 10	3 - 11
BK/B	4	2 - 10	1 - 12	9	6 - 14	5 - 15
Br. only	58	48 - 68	44 - 70	66	60 - 72	57 - 74
Other	16	9 - 25	7 - 27	8	5 - 12	4 - 14
TOTAL:	100	100	100	100	100	100

"Kitchen only" applies to the front section built onto the shelters.
(P)
Of these it appears that 16% in the smaller households are used only for cooking, whilst only 6% (P) are used for cooking only in the larger households. We find that the smaller houses more often have "other" uses for their additional rooms than the larger households who more often keep these rooms as bedrooms and living-room /bedrooms than the smaller houses.

From the foregoing tables we can conclude that the size of the household does seem to have an effect on the use to which rooms are put.

The number of persons sleeping per room according to the house types will now be examined. Since the old and new 4-roomed houses showed similar trends and the same applied to the trends displayed by the old and new 3-roomed houses, the house types have been grouped into shelters, two-roomed houses, three-roomed houses and four-roomed houses.

TABLE III (13).

PERCENTAGES OF PERSONS SLEEPING IN EACH ROOM PER HOUSE TYPE.

Room.	Shelters.			2-roomed.			3-roomed.			4-roomed.			Total:		
	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.	P.	LL.	CL.
1	84			48	44-53	42-54	17	14-23	13-24	11	5-18	4-21	43	40-45	39-48
2	-			51	46-56	44-57	37	31-42	30-45	15	9-23	7-26	33	31-36	29-37
3	-			-	-	-	45	42-49	41-49	34	24-44	22-47	16	14-19	13-20
4	-			-	-	-	-	-	-	40	30-50	29-54	3	2- 4	2- 5
Verandah	15	11-20	9-21	0	0-2	0-2	0	0-2	0-2	0	0-4	0-5	4	3- 5	2- 6
Elsewhere	1	0-2	0-3	1	0-2	0-3	0	0-2	0-2	0	0-4	0-5	1	0- 2	0- 3
	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

In the two-roomed houses, rooms used for sleeping purposes are occupied more or less by an even number of persons. In the three rooms we find a tendency for persons to leave the kitchen-livingroom and to sleep in the remaining two rooms. This tendency is further accentuated in the four-roomed houses.

In the two-roomed houses we find a small proportion of persons sleeping in the enclosed verandah. This is, if it occurs at all in the three- and four-roomed houses, likely to be even a smaller proportion. The shelters show a probable incidence of 75% sleeping in the built on "fronts".

In both the shelters and the two-roomed houses persons belonging to the household were found to be sleeping not in the house but elsewhere. In one case the person had built himself a corrugated iron shack in the yard, where he slept, as the two-roomed house in which he lived was packed beyond capacity. In other cases found in the shelters the reasons given for sleeping elsewhere were again the over-crowding of the dwelling.

ATTITUDES OF PERSONS TO ORLANDO HOUSES.

Orlando tenants are keen to express their views on the housing question. They realise from experience that houses are difficult to obtain and greatly fear losing their houses; yet there are many unsatisfactory aspects to the houses provided. The most general complaints are:-

(1) One will never be able to own the house, and it cannot be handed down to one's children. Under tribal conditions, land belongs to the chief; but houses are the private possessions of persons who built them, and they may dispose of them as they please. The ambition of most families, therefore, is to save enough money to buy a plot of land and build a house in one of the released areas (Nyaton, Hamman-kraal, etc.). Many of the sample families already had such plots - paid for or partly paid for; and many more express the wish to buy one.

(2) Rents are a great burden on one's meagre income, and there is no hope of it ever decreasing.

(3) One cannot choose the house or locality in which one wishes to live. The Minister of Religion may thus find himself neighbour to the brewer, the nurse next to the witchdoctor, the teacher near a "Witchdoctor" house, and it is difficult to keep children away from the bad influences that so easily misguide them. Location children have become notoriously uncontrollable.

(4) Allocated houses are bare and uninviting. This was especially true of the two- and three-roomed houses of Orlando East where the floors were of earth, the walls unpainted, and the roofs without ceiling. In most cases many costly improvements have been made, yet when one leaves it will all be lost, for the house belongs to the Municipality.

(5) Most houses do not provide enough accommodation for the Bantu family.

The birth rate, even in Urban areas, remains high, seeing that it is often not possible to segregate parents and children, and persons of opposite sex for sleeping accommodation. Such conditions are not tolerated under the tribal system, and still less in the standards laid down by western civilization.

(6) The number of four-roomed houses is limited. These are a great improvement on other houses and are termed the "Westcliff" of Orlando. Even if one can afford the high rentals (£1.15.- p.w. for a new three-roomed house and £2.10.- for four rooms) there is little chance of obtaining such a house. Only 4% of the houses of Orlando West II are new four-roomed houses.

(7) The new semi-detached three-roomed houses of Orlando West II are generally disliked. Reasons for this are noise and neighbourly quarrels; the rooms are extremely cold in winter; the fact that the internal walls only go halfway up, affords no privacy to any of the rooms, and the houses are said to deteriorate rapidly and in some cases were reported to leak.

The lack of stoeps in the new semi-detached 3-roomed houses; the need for a room apart from the livingroom; the need for storage facilities; the wish for more adequate washing amenities, were frequently discussed. It was thus decided to ask the head or his wife the following questions, answers to which have been tabulated. (5)

(1) Is it necessary to build a stoep to a house or is it better to utilise that additional space indoors? If a stoep is required, should it be in front or at the back of the house?

(2) Concerning the kitchen-livingroom space, which of the following schemes is most desirable:-

(a) A large livingroom-kitchen as at present?

(b) A large livingroom-kitchen with the stove screened off by a small wall?

(5) These do not appear in the original printed cards as the decision was made only when out in the field. The answers were coded under the Section "Remarks" of the "Housing" card.

(c) The livingroom-kitchen space to be divided into two to provide a small front sitting-room with a larger dining-kitchen at the back?

(d) The space to be divided to provide a large livingroom in front of the house with a small kitchen at the back?

(3) Washing Facilities:

What is the most desirable - a shower as at present in the new houses, or a boiler for hot water? In neither case would a bath be provided.

(4) Storage Space:

(a) Is a pantry necessary?

(b) Are shelves in the kitchen desired?

(c) Would it be a good plan to provide built-in cupboards in the bedrooms?

It was intended to see if any correlation existed between the answers to these questions and the size of the household, the type of house lived in, the income of the head and the education of the head. (See corresponding Appendix)

TABLE III (14).

WISHES OF PERSONS IN ORLANDO CONCERNING STOEPS.

<u>DESIRE.</u>	<u>P.</u>	<u>PERCENTAGE INCIDENCE.</u>	
		<u>L.L.</u>	<u>O.L.</u>
Front Stoep	91	86 - 93	85 - 95
Back Stoep	2	1 - 3	0 - 4
No Stoep	5	3 - 9	2 - 10
Don't Care	2	1 - 3	0 - 4
TOTAL:	100	100	100

An overwhelming majority (93% P.) were found to want a stoep. Almost all preferred the front stoep. Not more than 10% (1% level) would prefer having the space

for a stoop utilised indoors.

Reasons given for this preference -

- (1) The fact that a house does not "look like a house" without a stoop.
- (2) European houses generally have verandahs.
- (3) Persons like sitting out on them in the evenings and over the week-ends when they are free to do so.

TABLE III (15).

WISHES OF PERSONS IN ORLANDO CONCERNING
KITCHENS AND LIVING-ROOMS.

DESIRE	PERCENTAGE DESIRE		
	P.	L.L.	O.L.
Kitchen-livingroom as at present ...	7	5 - 12	4 - 14
Kitchen-livingroom with stove screened off	4	3 - 8	2 - 9
Large K/D/R at back with small front S.R.	26	21 - 32	18 - 33
Small K. at back with large front L.R.	63	58 - 70	55 - 71
Don't Care ...	0	0 - 4	0 - 5
TOTAL: ...	100	100	100

Again by far the majority of persons are found to prefer separate cooking and living space. The most popular arrangement seems to be the small kitchen at the back with a large front livingroom; not less than 55% (L.L.) and as many as 71% (O.L.) finding this desirable.

About 1 in 4 of the tenants of Orlando desired a large kitchen-diningroom at the back with a small front sitting-room.

In this connection it is interesting to note the findings of the Sub-Committee to Survey Attitudes of Occupants to Housing (Building Research Institute) (P.IXXVIIII).

In a survey of attitudes amongst Europeans in low cost housing schemes it was found that "only a small number of persons were attracted to the idea of a large combined dining- and livingroom with small working kitchen", whilst "23% were of the opinion that the dining arrangements should be separated from the livingroom, but were quite satisfied if they were accommodated in a dining-kitchen".

70% were found to prefer a dining-room separate from both livingroom and kitchen. This alternative was not presented in the Orlando Surveys, though this wish was often expressed by the tenants.

Few seem to like the idea of the kitchen-livingroom with a stove screened off, and not more than 14% (1% level) found the present arrangement the most desirable one.

No correlations were found to exist between the preference for the grill or the large front rooms and the type of house lived in, the size of the household, the education of the head or the income of the head (6).

Many complaints were lodged by the tenants against the present practice of combining cooking and living space, thus making the kitchen a front room. It was contended that the kitchen was a private room not to be seen by visitors; that it showed little respect to the guests to entertain them in the kitchen; that persons should not know what the housewife is cooking; that the kitchen is necessarily an untidy section of the house and that it should, therefore, be situated at the back of the house; that Europeans would never think of having a kitchen as a front room.

Consequently many persons are found to use another of the rooms as the living-room, dining-room or often the (show-room) for visitors - whilst using the kitchen as living space for the family. This room is usually furnished with elaborate furniture - often bought on the Hire Purchase System. At night it usually serves the purpose of a bedroom.

The new 3-roomed houses of Orlando West II type ⁽¹⁾ were repeatedly quoted

(6) The original sample distributions can be found in the Appendix.

(1) Anderson Construction Co. 1945.

as having the most desirable plan, since a cooking recess had been built at the back leaving the livingroom as a separate room in front.

TABLE III (16).

WISHES OF PERSONS IN ORLANDO CONCERNING
WASHING FACILITIES.

<u>DESIRE</u>		<u>PERCENTAGE INCIDENCE.</u>		
		P.	L.L.	U.L.
Shower	...	14	10 - 19	9 - 20
Boiler	...	84	78 - 88	76 - 89
Don't Care	...	2	1 - 3	0 - 4
TOTAL:	...	100	100	100

Concerning washing facilities it was found that the majority would desire some system by which water could be warmed. From 9% to 20% (L.L.), however, preferred the shower as now provided in the new houses. This preference did not appear to coincide with any of the four factors previously mentioned - education, income, size of household and type of house lived in.

TABLE III (17).

WISHES OF PERSONS IN ORLANDO CONCERNING
STORAGE FACILITIES.

<u>DESIRE</u>		<u>PERCENTAGE INCIDENCE.</u>		
		P.	L.L.	U.L.
Pantry Only	...	30	24 - 36	23 - 38
Shelves in Kitchen only	...	2	1 - 3	0 - 4
Built-in Cupboard in Bedroom only	...	1	0 - 2	0 - 3
Both Pantry and Shelves in Kitchen	...	10	7 - 14	6 - 16
Pantry Shelves and Built-in Cupboard	...	24	19 - 29	17 - 31
Pantry and Built-in Cupboard	...	29	24 - 35	21 - 37
Shelves and Built-in Cupboards	...	0	0 - 1	0 - 2
Don't Care	...	4	3 - 7	2 - 8
TOTAL:	...	100	100	100

Opinion is more dispersed in the desirable storage facilities than in any

of the other items. Nearly a third, however, 30% (P.) and not less than 23% and as many as 38% (taking a 1% risk or error) would be satisfied with only a pantry. The next most desirable facilities would be the pantry combined with a built-in cupboard in the bedroom. Nearly one in four of the tenants found all three items desirable (P.) i.e. a pantry, shelves in the kitchen, and a built-in cupboard in the bedroom.

Of interest is the fact that only 7% (P.) (including the Don't Carees) expressed no desire for a pantry (7).

Discussion.

It was found that in numerous cases the first reaction of the tenant was - "but then with these improvements the rents will go up and we already can barely afford the present rentals".

Tenants were asked to consider the desirability of these improvements if the rents remained the same.

Few persons showed any objective attitude to these questions. Many answered in these terms - "but we already have our wardrobe - why should we want a built-in cupboard..." "we have just moved into this house and don't want to move out again..." Or they would answer what they considered would please the investigator. So in order to really gauge the attitude of persons, much time was spent discussing the general aspects of housing (8). The impressions derived from these discussions were that the urban African is acutely aware of the fact that the present houses do not satisfy his needs; he knows the frustration of overcrowding and experiences its many demoralising influences; he knows the discomfort of a cold house, lack of hot water; he is sensitive to the monotony of black walls, unattractive floors; he knows that what he must be satisfied with would not satisfy his European counterpart.

(7) Since the incidence of these desires within the sample which is already small (230) shows a scattered distribution, it was not deemed valuable to consider any further classifications.

(8) The four items tabulated were the most commonly complained about, and as the results would indicate, the ones on which public opinion was to a large extent unanimous.

Yet he has not analysed in any rational manner the causes of the discomforts to which he is subjected; he has not analysed whether his aspirations are really the solution to the problem; he has not the knowledge of the most effective measures to meet his needs - but when his needs are met he will know - and when they are not met he knows only too well! One finds, therefore, that, faced with the problem of analysing his complaints and desires, he has resources only to a limited field of experience, and will derive therefrom his complaints and aspirations

There is much distrust of the Municipality. It is an official body like the Government, that imposes many rules and many regulations, and which punishes one if they are broken - even if one did not know of their existence. The houses are Municipal houses. No wonder they are inadequate!

....."Thus springs up the fascional state of affairs that the same Native who complains bitterly of a Municipal house, will construct for himself some equally bad "suburban" monstrosity or one-roomed hovel and regard it with overwhelming pride". (9)

Opinions are further based mainly on what has been observed in contacts with European houses. The feeling that what is provided for the Native is necessarily inferior, is an attitude which has arisen from experience in a country which has two standards - one labelled "For Europeans Only" and the other "Non-Europeans"; and so it is found that all new moves are viewed with suspicion - the good ones with incredulity. Yet the African is eager to learn - where good reasons are provided, opinions will easily be changed. As the Sub-Committee to Survey the Attitudes of Occupants to Housing concludes:-

....."The idea of conducting research into the reasons and motives underlying popular opinion regarding housing, suggests the possibility of combining with the necessary field studies, a campaign aimed at influencing public opinion on this subject, with the object of making it more informed. If householders were to become more critical - in the constructive sense - than they are

(9) Building Research Institute; Sub-Committee to Survey the Attitudes of Occupants to Housing. Page 8.

at present, they would tend to bring more pressure to bear upon designers for better standards of house design. There is no doubt that this would have a tonic effect on the general standard of house design in this country; in relation to Minimum standards, such critical and informed opinion will greatly help the housing architect in his perpetual struggle to eliminate wasted space and unnecessary and inappropriate features from the design of dwellings". (10)

There seems to be no reason why, if proper steps are taken, an informed and housing-conscious urban African community should not emerge. (11)

(10) Building Research Institute: Sub-Committee To Survey the Attitudes of Occupants to Housing. Page 8.

(11) For information re. "Public Education in Housing" see the Building Research Institute's Report DS.2 Page (11).

PART IV : OVERCROWDING.

A. THE CONCEPT OF OVERCROWDING.

We have in the previous sections examined the population of Orlando - its demographic structure; the economic and social conditions of its inhabitants; the houses in which they live and to a small degree their attitudes towards them. Now we come to a most important step - that of examining the relationship between the houses and the people living in them - are the houses provided adequate? To what extent is their overcrowding? (1)

"Fundamentally, overcrowding is a cultural not a technical concept. All technical standards of overcrowding, quotas of space per human unit, are projections of human standards of living. This means that we cannot properly construct, understand or apply a standard of overcrowding unless we relate it to the following human factors:-

(a) The way in which the space is to be used - the manner of living of the persons concerned, their behaviour habits biotic and social actions.

(b) The purpose for which the space is to be used - a norm of living for the persons concerned, a criterion of health, comfort, decency or other aspect of welfare". (2)

(1) A meaningless term to which a meaning must be attached:-

"Overcrowding exists if the total number of persons in occupation of existing structures is in excess of the maximum permissible according to any given standard." (Prof. Barrow's - The Durban Housing Survey).

(2) Report of the Capetown Social Survey (Report No. SS 19 (Page 1)).

The manner of living of the Urban Bantu constitutes a vast field of research which has only sketchily been touched upon in Part II, and about which a great deal more knowledge is required. It is apparent however that the Bantu realise that their manner of life in the urban areas is both transgressing their tribal norms and remains far from fulfilling the standards advocated by the civilization into which they are rapidly emerging.

The norm of living or the relationship between the dwelling and its function, is a fairly standardised concept. From the primitive attitude of hearth and home to be Corbusier's definition of the house as a "machine for living" or Lewis Mumford's "biological institution", it is recognised that a dwelling is erected to serve man's needs. And man's needs on all three levels - physical, mental and spiritual.

The minimum requirements in housing for decency, health, amenity, comfort, convenience and safety as postulated by Catherine Bauer (3) (See Appendix B), have been widely accepted - in fact "would be accepted in principle by almost any architect, public official or housing authority in Europe"! (4)

Important though the determination of the norm of living may be it is not the purpose of this study to go into detailed research on the subject. An examination of the African urbanised Community does however, indicate that one could, with reasonable assurance, apply to them the same standards for assessing the primary adequacy of the houses as are employed in large cities associated with western

(3) Catherine Bauer - Modern Housing.

(4) Ibid.

civilisation. This conclusion would then lead us to an examination of the standards for measuring this factor.

B. STANDARDS OF MEASUREMENTS.

A number of different standards have been evoked for this purpose more especially in the years following the Manchester (Public Health) Standard established in 1920. The various standards have been classified as follows:- (5)

" (1) Indices designed to measure the general incidence of overcrowding within large groups of households:-

The Registrar's General Index (1891)

Botha's Index (1897);

(2) Standards for Building Programmes:-

The Manchester Standard (1920)

The P.E.P. Standard (1934)

The Bourneville Suggested Standard (1941)

(3) Criteria of Overcrowding in Individual Households:-

The Merseyside Standard (1930)

The New London Survey Standard (1934)

The Union Statutory Definition (1934)

The Southampton Standard (1934)

The British Census Experimental Standard (1935)

The Rowntree Standard (1941)"

Added to the last list can now be the Cape Town Standard.

(5) Prof. Batson : The Cape Town Social Survey Report No. SS 26 (Page 22).

A further standard is the one recommended in the interim report of the sub-committee on House Planning and Design:-

"The maximum number of persons to be accommodated in various classes of dwellings:-

Bed Sitting Rooms	2 persons
Dwellings with 1 bedroom	2 persons
" " 2 bedrooms	4 persons
" " 3 bedrooms	6 persons
" " 4 bedrooms	8 persons

Each adult or child over 1 year counts as 1; infants under 1 year old not counted."

As these other standards have been fully analysed and summarized by Prof. Batson (See SS 26), and referred to by Prof. Burrows in the Durban Housing Survey (6) (D.H.14), I shall not again enumerate their various characteristics, but shall confine myself to a discussion of the New London Survey Standard, the Merseyside Standard and the Cape Town Standard as these are the ones directly related to the standard adopted in this survey.

THE NEW LONDON SURVEY standard is based on the Manchester Public Health Committee standard and makes the following provisions:- (7)

(6) Prof. Burrows: The Durban Housing Survey.

(7) Ref. the New Survey of London.

London School of Economics under the direction of Sir Llewellyn-Smith.

(1) Persons of opposite sexes aged 10 years and over and not married are to be separated for sleeping accommodation.

(2) Persons aged 10 years and over are counted as 1 and under 10 years as a half. Not more than $2\frac{1}{2}$ persons are to be accommodated per bedroom.

The New London Survey recognises three applications of this standard and rate their results accordingly by all three methods.

(a) By counting as bedrooms only those rooms structurally designed that way. A single room dwelling is counted as a bedroom in this manner, a dwelling showing a deficiency of bedrooms is rated as overcrowded.

(b) Actual overcrowding - for this measure only the rooms actually used as bedrooms are wanted. In the application of this measure they do not consider which rooms are used for sleeping (kitchen, living room etc.) or how many rooms the house possesses, so that a house may be rated as overcrowded even if there would be sufficient rooms to satisfy the standard if all were used for sleeping.

(c) Necessary overcrowding - This occurs when in dwellings of more than two rooms the bedrooms needed are more than the rooms in the tenement less one. For the purpose of this standard it is asserted that a one room dwelling is a bedroom and in large dwellings all the rooms but one may be used for the purpose of sleeping (See New London Survey; Vol. I) (8)

In the SURVEY OF MERSEY SIDE a 'capacity standard' is defined and this is combined with the bedroom accommodation provisions to constitute the Merseyside 'full standard' of overcrowding.

(8) Ref: The Survey of Merseyside : Caradag Jones.

"In the Merseyside Survey the capacity standard of accommodation is defined as follows:-

Counting any person of age 10 and over as one equivalent adult and any person under 10 as half an equivalent adult, any member

up to $2\frac{1}{2}$ equivalent adults shall have at least 1 room

"	"	3 - $3\frac{1}{2}$	"	"	"	"	"	"	2 rooms
"	"	4 - 5	"	"	"	"	"	"	3 rooms
"	"	$5\frac{1}{2}$ - $7\frac{1}{2}$	"	"	"	"	"	"	4 rooms
"	"	8 - 10	"	"	"	"	"	"	5 rooms

and so on allowing one extra room for every addition of $2\frac{1}{2}$ equivalent adults to the family.

In applying this standard it is further laid down that:-

(1) A separate bedroom shall be available for each married couple to be shared at most with two infants, each under 5 years, such an infant in this case being reckoned $\frac{1}{2}$ equivalent adult.

(2) Two adults of the same sex may also share a bedroom with two infants under 5.

(3) Excepting husband and wife, no two persons of opposite sex who are both over seven shall occupy the same bedroom.

(4) Not more than three persons over 10 or two persons over, and two under, 10 shall occupy the same bedroom.

(5) No bedroom shall be occupied by members of more than ^{one} family (but the term 'family' is defined to include lodgers boarding with the family).

(6) To arrive at the number of bedrooms in applying these rules it is asserted that families consisting of four or more equivalent adults require at least one living room not used as a bedroom."

In the SOCIAL SURVEY OF CAPE TOWN (9) a combination of these two standards is arrived at producing the "Survey Occupancy Standard". The "sex separation" standard is the one adopted by the New London Survey (from the Manchester Survey) taking the age of 10 as the dividing line between adults and semi-adults. The "Average Occupancy Standard" is based on the Merseyside Survey "Capacity Standard" previously quoted and by combining the two the "Survey Occupancy Standard" is constructed.

C. THE SURVEY STANDARDS.

The Survey Standards

The following Standards have been applied in the Orlando Survey:-

1. The first one the Minimum Occupancy Standard is the Cape Town "Survey Occupancy Standard" applied together with some provisions relevant to Orlando.

"Each person aged 10 or over counts as an adult, each younger person as half an adult. A household of not more than $2\frac{1}{2}$ adults requires one room, of 3 or $3\frac{1}{2}$ adults requires 2 rooms, and of 4 to 5 adults, 3 rooms, with one further room for every further $2\frac{1}{2}$ adults or fraction of $2\frac{1}{2}$ adults, provided that adults are not obliged to sleep in the same room with adults of the opposite sex with whom they are not living as husband and wife.

A household with accommodation which falls short of that prescribed

(9) Ref: The Social Survey of Cape Town: Reports Nos. 11, 12, 20, 21 and 22.

by the Survey Occupancy Standard may be classified as overcrowded; a household with accommodation exactly equal to that prescribed as crowded; and a household with accommodation in excess of that prescribed as uncrowded." (10)

The standard is subject to the following provisions:-

(a) That the term "room" is defined as all enclosed structures including the enclosed verandahs and the built-on mud, wood and iron front verandahs in the case of the shelters. Thus a shelter with a "built-on front" is counted as a two-roomed dwelling, a two-roomed house (Type J.1. Brick House) with an enclosed verandah is counted as a three-roomed dwelling, a double shelter with a front as a three-roomed dwelling, a three-roomed house with an enclosed verandah as a four-roomed dwelling.

For this purpose the combined living-kitchen, found in the houses is also counted as a "room"

(b) That a married couple is allowed to sleep with one child under the age of 10, fulfilling the maximum allowance of $2\frac{1}{2}$ adults per room.

It can thus be clearly seen that the standard adopted (hereafter referred to as the M.O.S. is at the extreme limit of tolerance and indeed in many cases, would probably not satisfy the Union Slums Act minimum requirements of 400 cubic feet of free air space and 40 square feet of floor space to each person over 10 years, and 200 cubic feet free air space and 20 square feet to each less than 10.

Persons classified as 'overcrowded' by this standard are thus living under conditions which can be termed intolerable, and those classified as 'crowded' as

living under conditions far from satisfactory. The tables which combine crowded and overcrowded households and persons denote the number of households and persons living under unsatisfactory conditions.

It cannot be overstressed that 'minimum Standards' though providing a valuable index of social phenomena are never sufficient in themselves. What Prof. Batson has said of the 'Poverty Datum Line' is equally applicable to this Minimum Occupancy Standard; "It is not a 'human' standard of living. It thus admirably fulfills its purpose of stating the barest minimum upon which subsistence and health can theoretically be achieved under western conditions. It does not in any sense describe even a minimum "ideal".

2. The second standard makes provision for a Living-kitchen not to be used for sleeping purposes. It is based largely on the New London Survey 'necessary overcrowding standard'.

The Living-room Occupancy Standard can be defined as follows:-

In all dwellings all but one room may be used for sleeping purposes, the remaining one to be kept exclusively as living space. 'The Occupancy Standard' for all the rooms less the one remains that of $2\frac{1}{2}$ adults requiring one room; three or three and a half adults, 2 rooms and from 4 to 5 adults, 3 rooms with one further room for every further $2\frac{1}{2}$ adults or fraction of $2\frac{1}{2}$ adults where a person of under 10 counts as half an adult and a person 10 years and over as one adult. Provision is further made for sex separation of persons over 10 years not living together as husband and wife.

In the application of the 'Living Room Occupancy Standard' 'room' applies only to those rooms originally constructed by the Municipality as such. An enclosed verandah counted as a room in the 'Minimum Occupancy Standard' is thus not considered; all single shelters whether they have built-on fronts or not are considered as one-roomed dwellings.

SUMMARY OF THE STANDARD USED IN THE SURVEY.

Prof. Burrows in the Durban Housing Survey (D.H. 14, Pages 6 and 7) points out that the problem of assessing housing requirements is two-fold;

(a) Determination of the Standard to be adopted;

(b) Application of the adopted Standard.

For each of these problems he formulates a number of questions which need to be considered.

The following table is an assessment of the three standards used in the Orlando Survey according to these questions -

Question	M.O.S.	LHO.S.
<u>1. Determination of Standard:</u>		
(a) Occupants per Room:		
(i) What is the maximum permissible No. of occupants per room?	2½	2½
(ii) At what age is a child deemed an adult for purposes of reckoning space requirements?	10 yrs	10 yrs
(iii) At what age should persons of opposite sex, other than persons living together as husband and wife be required to sleep in separate rooms?	10 yrs	10 yrs
(iv) Up to what age may children sleep in the same room with married couples?	Under 10 yrs	Under 10 yrs
(v) Is an "occupants per room" room ratio based on sleeping rooms only (i.e. a bedroom standard), or on all rooms (i.e. overall occupancy)?	All rooms & built on structures	All rooms <u>less 1</u> not counting built on structure

Question	M.O.S.	LR.O.S.
(b) Air Space, Floor and Light:		
(i) What is the minimum floor area per room?	Not considered	Not considered
(ii) What is the minimum cubic capacity of floor area per person?	-do-	-do-
(iii) What is the minimum height of the room?	-do-	-do-
(iv) What is the minimum window area per room?	-do-	-do-
(c) Amenities additional to sleeping Rooms:		
(i) Is a separate living room required for <u>households</u> above a certain size?	No.	Yes for all dwellings Living-Kitchen separate
(ii) Is separate eating accommodation required?	No.	Free room to be Kitchen-Living room.
2. <u>Application of Standard:</u>		
(1) Where the standard refers to sleeping accommodation only, should only rooms <u>structurally</u> alleged for that purpose be reckoned as bedrooms, or rooms <u>actually</u> used for sleeping purposes or only rooms used <u>exclusively</u> for sleeping or <u>all rooms</u> occupied by the household, or <u>all rooms less 1</u> (except in 1 room ten ants)?	<u>All rooms</u> occupied by household <u>plus</u> built-on structure	<u>All rooms less 1</u> not counting built-on structures

Question	M.O.S.	LR.O.S.
(ii) Where the standard refers to overall occupancy, is a room structurally arranged as a kitchen to be counted as a room? If it can be counted as a room can it be counted as a living room or a bedroom?	Yes.	Yes (assumed that free room will be Kitchen/Living Rm.
(iii) Where the standard requires cooking accommodation, is a room not structurally arranged as a kitchen but used for cooking (whether used for other purposes or not) deemed to satisfy the requirements?	Not applicable	Not applicable

REASONS FOR THE CHOICE OF THE STANDARDS:

1. The Minimum Occupancy Standard.

Having examined the other standards listed on page ... it was felt that the Cape Town 'Survey Occupancy Standard' provided the best measurement of minimum requirements for the purposes in view for the following reasons:-

(a) The separation of the sexes at the age of 10 is the one advocated by Union Legislation and has been most commonly used in many surveys. Whilst realising the desirability of adopting seven years as the age limit as advocated by Caradag Jones in the Mersey Side Survey, it has been decided to keep the standard as a minimum expedient.

(b) Provisions for Africans in South Africa have generally been made at the very lowest possible level, and whereas not advocating that this should be so it was felt advisable to apply a very stringent measure, in accordance with these provisions. This decision was further supported by the size of the problem facing planners of Native housing.

(c) It has been deemed advisable since no serious differences in the population requiring major modifications exist to use the standard used in both the Cape

Town Social Survey and the Durban Housing Survey, thus keeping the results of the Survey directly comparable with those of previous Surveys.

2. The Living-Room Occupancy Standard.

(a) It was felt however, that a more 'human' measure was necessary, based on the assumption that each dwelling should make provision for at least one room for the purpose of living and cooking which would not be used for sleeping purposes.

(b) Since the "enclosed" verandahs and built-on "fronts" erected by the inhabitants of Orlando dwellings are in fact against the Municipal rulings, it has been decided to apply the second standard only to the rooms provided by the Municipal authorities.

(c) Unlike the London Survey "necessary" overcrowding standards, which make provision for an extra room for houses above two rooms, in the L.R.O.S. all dwellings including one-roomed houses are considered. Thus by this standard all one-roomed dwellings are automatically overcrowded. This was decided upon since in most schemes the Native Housing no separate kitchen is provided and the kitchen and living room are combined.

D. THE APPLICATION OF THE MINIMUM OCCUPANCY STANDARD TO ORLANDO.

1.

TABLE IV (1)

Distribution of Households according to M.O.S.

Households in Percentages			
	P.	LL.	CL.
Overcrowded	50	44 - 56	42 - 58
Crowded	28	23 - 35	22 - 37
Uncrowded	22	17 - 27	15 - 29
TOTAL ...	100	100	100

About half of the households of Orlando are found to be probably overcrowded when applying the very stringent Minimum Occupancy Standard and it can be stated with virtual certainty that not less than 42% and not more than 58% of the total number of houses in Orlando are overcrowded.

Combining the overcrowded and crowded households we find that:-

P. 78% of the households live under unsatisfactory conditions

LL. 72 - 85% -do-

CL. 70 - 87% -do-

The application of the Minimum Occupancy Standard reveals that whilst not less than 42% of the households in Orlando live under intolerable conditions (the most probable figure being 50%), there are no less than 70% of the households who live in conditions that can be termed unsatisfactory - the most probable figure being 78%

THE DEGREE OF OVERCROWDING:

Of interest is the relationship between the number of rooms required per household as indicated by the Minimum Occupancy Standard and the actual number of rooms existing i.e. the degree of overcrowding measured in rooms.

TABLE IV (2)

Overcrowded and uncrowded dwellings as revealed by the M.O.S. according to the No. of Rooms Overcrowded and Uncrowded.

Rooms	OVERCROWDED			UNCROWDED		
	P.	LL	Dwellings in Percentages. C.L.	P.	LL	C.L.
1	45	35 - 55	32 - 58	73	58 - 86	54 - 88
2	47	37 - 57	34 - 60	26	15 - 41	12 - 45
3	7	3 - 13	2 - 15	2	0 - 10	0 - 13
4	2	0 - 6	0 - 7	0	0 - 7	0 - 10
ALL ROOMS	100	100	100	100	100	100

From the above table we conclude that the degree of overcrowding in the overcrowded dwellings is more acute than the degree of uncrowding in the uncrowded dwellings.

THE MINIMUM OCCUPANCY STANDARD AND THE STRUCTURE OF THE DWELLING:

Related to overcrowding according to the number of rooms overcrowded is the application of the Minimum Occupancy Standard to the Structure (11) of the dwelling rated.

(11) For this purpose "structure" refers to all rooms used by persons i.e. it includes enclosed verandahs and shelter "fronts".

- (a) A 2-roomed house & enclosed verandah becomes a 3-roomed structure.
- (b) A 3-roomed " " " " " " 4-roomed "
- (c) A Single shelter with a built-on front " " 2-roomed "
- (d) A Double " " " " " " 3-roomed "

TABLE IV (3).

The incidence of overcrowding (M.O.S.) according to the structure of the dwelling.

<u>Rooms in Structure.</u>	PERCENTAGE INCIDENCE OF OVERCROWDING.		
	P.	LL	C.L.
1	62	38 - 82	32 - 86
2	54	44 - 63	40 - 66
3	50	38 - 63	34 - 66
4	13	3 - 41	1 - 50
ALL STRUCTURES	50	44 - 56	42 - 58

From the preceding table, it appears (1) that only the 4-roomed structures fall below the average most probable estimate of overcrowded households (50% (P)).
(2) That the percentage of overcrowding rises as the size of the house decreases.

TABLE IV (4).

The incidence of crowding (M.O.S.) according to the structure of the dwelling.

<u>Rooms in Structure.</u>	PERCENTAGE INCIDENCE OF CROWDING.		
	P.	LL	C.L.
1	38	18 - 63	13 - 69
2	26	18 - 35	15 - 39
3	26	16 - 39	14 - 42
4	31	10 - 60	6 - 67
ALL STRUCTURES	28	23 - 35	22 - 37

It appears that probably the most crowding occurs in the shelters, the four-roomed structures showing a fairly high rate of crowding whilst the 2 and 3 - roomed structures appear to have a more or less similar percentage.

TABLE IV (5).

Percentage of Households Uncrowded Within each Type of Structure.

<u>Rooms in Structure.</u>	PERCENTAGE UNCROWDED.		
	P.	LL.	C.L.
1	0	0 - 17	0 - 24
2	20	13 - 29	11 - 31
3	24	14 - 36	12 - 40
4	56	28 - 81	22 - 86
ALL STRUCTURES	22	17 - 27	15 - 29

Practically no one-roomed structures are uncrowded. Over half the 4-roomed structures are uncrowded, the average most probable estimate of uncrowded structures being less than a quarter of the entire number of structures (22% (P)).

TABLE IV (6).

The Incidence of Overcrowding Plus Crowding (H.O.S.) According to the Structure of the Dwelling.

<u>Rooms in Structure.</u>	PERCENTAGE INCIDENCE.		
	P.	LL.	C.L.
1	100	83 - 100	77 - 100
2	80	71 - 86	69 - 89
3	76	64 - 85	60 - 88
4	44	19 - 72	14 - 78
ALL STRUCTURES	78	72 - 85	70 - 87

We find that practically all one-roomed structures are either overcrowded or crowded. Taking a 1% risk of error we can assume that at least 77% of the one-roomed structures in Orlando are either crowded or overcrowded.

The table further shows clearly the tendency for the smaller structures to have a higher degree of overcrowding and crowding than the larger structure.

TABLE IV (7)

The Distribution of Overcrowded Households (M.O.S.) According to Structure of Dwelling:

<u>Rooms in Structure.</u>	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL	C.L.
1	11	6 - 18	4 - 21
2	55	45 - 65	42 - 68
3	32	23 - 41	20 - 45
4	2	0 - 5	0 - 7
ALL ROOMS	100	100	100

It thus appears that whereas in Orlando 61% of the structures are one- or two-roomed, 69% of the overcrowded structures are one-or two-roomed, and that whereas in Orlando 39% of the structures are two- or three-roomed, 34% of the overcrowded structures are two- and three-roomed.

TABLE IV (8)

The Distribution of Crowded Households (M.O.S.) According to Structure of Dwelling:

<u>Rooms in Structure.</u>	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL	C.L.
1	13	9 - 18	7 - 21
2	49	35 - 64	30 - 68
3	30	18 - 45	15 - 48
4	8	4 - 20	3 - 23
ALL ROOMS	100	100	100

TABLE IV (9)

Distribution of Uncrowded Households (M.O.S.) According to Structure of Dwelling:

<u>Rooms in Structure.</u>	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL.	C.L.
1	0	0 - 7	0 - 10
2	47	32 - 62	28 - 66
3	35	22 - 50	9 - 54
4	18	9 - 33	7 - 37
ALL ROOMS	100	100	100

It appears that the uncrowded dwellings are fairly evenly distributed between the smaller and larger structures there being 47% of the two-roomed structures uncrowded and 53% of three and four-roomed structures uncrowded. Of significance however, is the fact that only very rarely would a one-roomed structure be uncrowded.

TABLE IV (10).

Th4 The Distribution of Overcrowded Plus Crowded Dwellings According to the Structure of the Dwelling:

<u>Rooms in Structure.</u>	DWELLINGS IN PERCENTAGES.		
	P.	LL.	C.L.
1	12	9 - 18	7 - 20
2	53	44 - 62	43 - 64
3	31	24 - 40	22 - 41
4	4	3 - 9	2 - 11
ALL ROOMS	100	100	100

Combining the overcrowded dwellings we find that out of the structures that have so many persons as to make them unsatisfactory, 65% of the households fall into the one- and two-roomed structures category and 35% into the three- and four-roomed category. The distribution tallies fairly closely with that of the total number of dwellings amongst the various structures given in table IV (8).

TABLE IV (11).

Distribution of the Total No. of Dwellings According to Structure.

<u>Rooms in Structure.</u>	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL.	C.L.
1	9	6 - 14	5 - 15
2	52	45 - 58	43 - 60
3	32	26 - 38	24 - 40
4	7	5 - 11	3 - 12
ALL ROOMS	100	100	100

This table shows that over half the dwellings in Orlando are two-roomed structures and nearly a third three-roomed structures and only a small proportion one-roomed and four-roomed structures. The preponderance of the two-roomed structures is the result of the large number of people owning shelters who have built on "fronts" which for the purpose of these tables have been counted as rooms.

THE MINIMUM OCCUPANCY STANDARD AND THE TYPE OF HOUSE.

Since the structure of the house does not indicate the type of dwelling, a two-roomed brick house at a rental of 17/4d per month or a temporary breeze block shelter with a built-on mud and iron "front" at a rental of 5/- per month, a further classification has been worked out based on the type of house and corresponding rental:

Since there are eight different types of houses amongst which the 230 sample houses are dispersed the "likely limits" and "cautious limits" are wide, yet whilst the danger of basing conclusions on small samples is apparent it may be of value as a rough indication of certain trends.

TABLE IV (12).

The Distribution of Overcrowding (M.O.S.) According to the type of House and Rental:

DWELLINGS IN PERCENTAGES.				
Type of House	Rental per month	P.	LL	C.L.
Shelter	5/-	30	22 - 40	19 - 43
Double Shelter	10/-	5	3 - 11	2 - 13
Two-roomed	17/4	38	29 - 48	36 - 52
Old 3 - roomed	£1. 1. 8.	18	12 - 27	10 - 30
Old 4 - roomed	£1. 8. 2.	0	0 - 4	0 - 5
New 3 - roomed semi-detached	£1.12. 6.	4	2 - 10	1 - 12
New 3 - roomed detached	£1.15. 0.	3	2 - 8	1 - 10
New 4 - roomed	£2.10. 0.	2	1 - 6	0 - 7
ALL HOUSES		100	100	100

This table shows that (1) whilst as can be expected, a large proportion of the overcrowded dwellings are shelters, (35%) (P) an even larger proportion of the overcrowded dwellings are the 2 - roomed brick houses at a rental of 17/4d per month (38%).

- (2) 18% (P) of the overcrowded dwellings are old three-roomed houses, and only 7% (P) of the overcrowded dwellings are new 3-roomed dwellings,
- (3) A very small proportion (2%) (P) of the overcrowded dwellings are 4-roomed houses, all of which are in the new 4-roomed group (£2.10.0. rental) the sample revealing no old 4 -roomed dwellings (£1.8.2.) to be overcrowded.

TABLE IV (13).

The Distribution of Crowded Dwellings (M.O.S.) According to the type of House and Rental:

Type of House.	P.	LL	C.L.
Shelter 5/-	35	22 - 50	19 - 54
Double Shelter 10/-	0	0 - 8	0 - 10
2-roomed 17/4d	37	24 - 52	21 - 55
Old 3-roomed £1.1.8.	16	7 - 30	5 - 33
Old 4-roomed £1.8.2.	5	2 - 14	1 - 17
New 3-roomed Semi-detached £1.12.6.	3	0 - 12	0 - 15
New 3-roomed detached £1.15. 0.	2	0 - 10	0 - 13
New 4-roomed £2.10.0.	3	0 - 12	0 - 15
ALL HOUSES	100	100	100

The distribution of the crowded dwellings amongst the types of houses shows the same general trend as the one of the overcrowded dwellings.

- (1) 35% (P) of the crowded dwellings occur in the shelters this time only in single shelters.

(2) 37% (P) of the crowded dwellings are two roomed. As in the case of overcrowding there is a slight predominance of 2-roomed houses over shelters.

- (3) Of the crowded dwellings, 16% (P) are old three-roomed houses and only 3% (P) new three-roomed.

(4) Of the crowded dwellings 8% (P) are four-roomed houses a large proportion (5%(P))being old four-roomed houses and a slightly smaller proportion (3% (P)) being new four-roomed dwellings.

TABLE IV (1A).

The Distribution of the Uncrowded (M.O.S.) Dwellings Amongst Types of Houses and Rentals:

Type of House	Rental	P.	LL	C.L.
Shelter	5/-	27	16 - 41	12 - 45
Double Shelter	10/-	0	0 - 8	0 - 10
2-roomed	17/4d	33	20-48	17 - 52
Old 3-roomed	£1. 1. 8.	18	9 - 32	7 - 37
Old 4-roomed	£1. 8. 2.	4	2 - 14	1 - 17
New 3-roomed semi-detached	£1.12. 6.	0	0 - 8	0 - 10
New 3-roomed detached	£1.15. 0.	8	3 - 20	2 - 24
New 4-roomed	£2.10. 0.	10	3 - 20	2 - 24
ALL HOUSES		100	100	100

A comparison of tables IV 9, 10 and 11 reveals that

(1) Out of both the overcrowded and crowded dwellings, 35% (p) are shelters.
Out of the uncrowded dwellings, 27% are shelters.

(2) Of the overcrowded dwellings, 38% (P) are 2-roomed houses.

" " crowded " 37% (P) " " "

" " uncrowded " 33% (P) " " "

(3) The old and new three-roomed houses show a very similar relationship in overcrowded, crowded and uncrowded dwellings.

(4) Of the overcrowded dwellings, none were old four-roomed houses, 2% (P) new four-roomed.

(5) Of the crowded dwellings, 5% (P) were old- four-roomed houses and 3% (P)

This table clearly shows that overcrowding is most acute in the shelters; over half of the shelters being overcrowded. Amongst the old houses half appear to be overcrowded and the new houses show the lowest degree of overcrowding 42% (P) being overcrowded. In keeping with this latter result, we find that in the shelters, the lowest proportion of uncrowded dwellings, (18% (p)) and that the new houses have the highest incidence of uncrowded dwellings, 38% (p) of the new houses being uncrowded. The old houses show a much lower percentage of uncrowded dwellings (22% (p)).

The old houses and the shelters have similar distributions amongst the overcrowded, crowded and uncrowded dwellings whilst the new houses show a different tendency

From the above table we can safely conclude that the new houses which provide more accommodation tend to be least congested and therefore, the most satisfactory dwellings in Orlando.

THE MINIMUM OCCUPANCY STANDARD AND THE
HOUSEHOLD INCOME.

It has often been maintained that much of the overcrowding of Africans in the urban areas is due to the fact that, receiving low wages, they tend to take in sub-tenants in order to subsidise the family income. This statement has been repeatedly applied to Orlando township and it is thus interesting to relate the Minimum Occupancy Standard to the household incomes.

TABLE IV (17)

The Distribution of Overcrowded Households (M.O.S.) Amongst Income Groups.

Income	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL	C.L.
0 - 9	5	2 - 11	2 - 13
10 -19	35	25 - 45	23 - 48
20 -29	35	25-45	23 - 48
30 -39	9	5 - 13	4 - 18
40 Plus	13	7 - 21	6 - 24
Unknown	4	2 - 9	1 - 11
ALL INCOMES	100	100	100

TABLE IV (18)

The Distribution of Overcrowded Households (M.O.S.) Amongst Income Groups.

Income	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL	C.L.
0 - 9	21	11 - 30	8 - 39
9 -19	32	20 - 46	16 - 51
20 -29	32	20 - 46	16 - 51
30 -39	8	4 - 20	15 - 48
40 Plus	5	3 - 12	2 - 15
Unknown	3	2 - 8	1 - 13
ALL INCOMES	100	100	100

TABLE IV (19).

The Distribution of Uncrowded Households (M.O.S.) Amongst Income Groups.

Income	HOUSEHOLDS IN PERCENTAGES.		
	P.	LL	C.L.
0 - 9	6	2 - 11	0 - 24
9 - 19	55	40 - 69	37 - 74
20 - 29	28	18 - 44	14 - 48
30 - 39	8	3 - 20	2 - 24
40 Plus	4	2 - 14	1 - 17
Unknown	0	0 - 8	0 - 10
ALL INCOMES	100	100	100

TABLE IV (20).

Total Distribution of Households Amongst Income Groups.

Income in £	FREQUENCY OF HOUSEHOLDS.		
	P.	LL	C.L.
0 - 9	10	7 - 15	6 - 16
10 - 19	38	34 - 45	30 - 49
20 - 29	32	27 - 38	25 - 40
30 - 39	9	6 - 14	5 - 15
40 Plus	9	6 - 14	5 - 15
Unknown	3	2 - 7	2 - 7
ALL INCOMES	100	100	100

From the preceding tables it appears that whereas 18% (p) of the total households within the population of Orlando have incomes higher than £30, 20% (P.) of the overcrowded households fall under this income group whilst only 13% (P.) of the crowded households fall into the income groups £30 plus and only 12% (P.) of the uncrowded households fall into these higher income groups.

Conversely whilst 48% (P.) of the total households have incomes below £20, only 40% (P.) of the overcrowded households fall into this category.

53% (P.) of the crowded households have incomes below £20 and 61% (P.) of the uncrowded households have incomes below £20.

TABLE IV (21).

The Incidence of Overcrowding According to the Income of the Household.

Income in £	PERCENTAGE OF HOUSEHOLDS OVERCROWDED		
	P.	L.L.	C.L.
0 - 9	27	4 - 64	3 - 74
10 -19	45	35 - 55	32 - 58
20 -29	54	44 - 65	42 - 68
30 -39	55	31 - 77	25 - 82
40 Plus	74	49 - 91	43 - 92
Unknown	0	0 - 32	0 - 42
ALL INCOMES	50	40 - 60	38 - 63

It appears that the highest probable incidence of overcrowding occurs in the highest income groups and it decreases as the income decreases.

TABLE IV (22).

The Incidence of Crowding According to the Income of the Household.

Income in £	PERCENTAGE OF HOUSEHOLDS CROWDED.		
	P.	L.L.	C.L.
0 - 9	59	31 - 84	24 - 89
10 -19	23	7 - 47	4 - 54
20 -29	27	12 - 47	9 - 52
30 -39	25	4 - 62	2 - 78
40 Plus	16	1 - 52	0 - 67
Unknown	0	0 - 32	0 - 42
ALL INCOMES	28	17 - 38	14 - 42

TABLE IV (23).

Percentage of Uncrowded Households According to the Income of the Household.

Income In £	PERCENTAGE OF HOUSEHOLDS OVERCROWDED		
	P.	L.L.	C.L.
0 - 9	14	1 - 50	1 - 60
10 -19	32	17 - 52	13 - 57
20 -29	18	4 - 42	3 - 49
30 -39	20	2 - 56	1 - 66
40 Plus	11	1 - 46	0 - 56
ALL INCOMES	22	11 - 36	8 - 40

The lowest income groups seem to have the highest number of uncrowded households whilst the highest income groups seem to have the lowest.

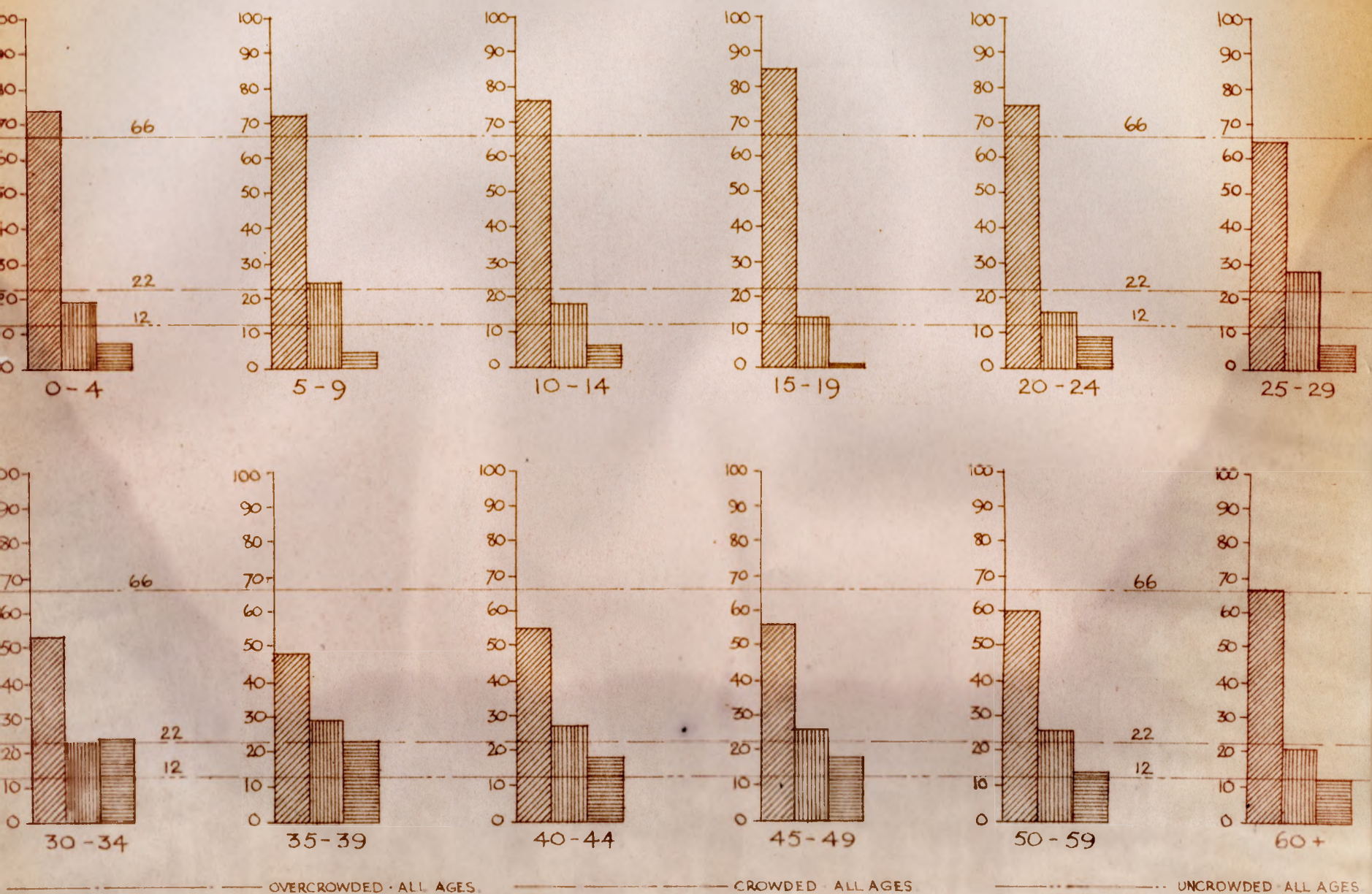
It follows from these figures that overcrowding seems to have no relation to low incomes i.e. poverty, and is thus attributable to other factors.

Since amongst urban Africans all potential earners are drawn upon to supplement the household income, it follows that the households with the highest incomes would have a number of earners and thus be large, this being directly related to overcrowding.

THE PERSONAL INCIDENCE OF OVERCROWDING (M.O.S.) ACCORDING TO AGE.

Since environment has an important influence on the growing organism it is important to know what age group is most affected by the incidence of overcrowding.

	P.	LL.	C.L.
Percentage of Persons overcrowded	66	63 - 69	62 - 72
" " " crowded	22	19 - 25	19 - 25
" " " uncrowded	12	10 - 14	9 - 15



PERCENTAGE INCIDENCE OF OVERCROWDED, CROWDED AND UNCROWDED PERSONS ACCORDING TO AGE.

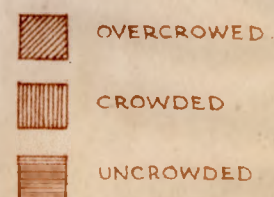


TABLE IV (24).

Personal Incidence of Overcrowding (K.O.S.) According to Ages.

AGE	PERSONAL INCIDENCE OF OVERCROWDING.		
	P.	L.L.	U.L.
0 - 4	74	65 - 80	63 - 84
5 - 9	72	62 - 80	59 - 82
10 - 14	76	66 - 83	64 - 85
15 - 19	85	76 - 92	74 - 93
20 - 24	75	65 - 83	63 - 85
25 - 29	65	55 - 74	52 - 77
30 - 34	53	44 - 63	40 - 66
35 - 39	48	38 - 58	35 - 62
40 - 44	55	45 - 65	42 - 68
45 - 49	56	41 - 70	37 - 74
50 - 59	60	45 - 74	40 - 77
60 Plus	67	52 - 80	47 - 82
Unknown			
ALL AGES	66	63 - 69	62 - 70

From the table we can see that:-

- (1) Taking all ages, 66% (P) of the persons in Orlando live in overcrowded conditions. Taking a 1% risk of error we can state that definitely 62 - 72% of the persons in Orlando live in overcrowded conditions, and applying a very stringent Minimum Occupancy Standard measure.
- (2) All Age Groups up to the age of 25, show a higher probable incidence of overcrowding than the average. The Incidence decreases in the next three age groups reading the minimum probable number of 48% on the age group 35 - 39, then rises again in the next four groups surpassing the average probable incidence of 66% in the age group 60 plus.
- (3) Taking a 1% risk of error, we find that in no age group will the personal incidence of overcrowding be below 35% whilst the highest personal incidence may be as high as 93%

(4) The age groups 15 - 19 show the highest personal incidence of overcrowding (85% (P)) whilst the age group 35 - 39 shows the lowest personal incidence of overcrowding (48% (P)).

Discussion.

The data at our disposal does not allow us to state definite reasons for these observed trends but the following are submitted as possible explanations :-

- (1) As previously indicated many of the households have old parents dependent upon them. The rise of the personal incidence of overcrowding in the age group 60 plus may possibly be attributed to the fact that these old parents have to be supported by their children living in the urban areas.
- (2) The migration data revealed a tendency for the children to be sent away, to predominate in the age groups 5 - 9 and 10 - 14 (29% (P)) and 26% (P) respectively whilst the lowest number occurred in the age groups 15 - 20 (22% (P)).

The age group, 15 - 20 shows the highest incidence of personal overcrowding (85% (P)) whilst the age group 10 - 14 shows a drop (76% (P)) and the age group 5 - 9 a further drop (72% (P)).

TABLE IV (25)

Personal Incidence of Crowding : According to Age.

AGE.	PERCENTAGE INCIDENCE OF CROWDING		
	P.	LL	C.L.
0 - 4	19	13 - 24	10 - 30
5 - 9	24	16 - 33	13 - 36
10 - 14	18	11 - 27	9 - 30
15 - 19	14	8 - 22	6 - 25
20 - 24	16	10 - 25	8 - 27
25 - 29	28	20 - 38	18 - 41
30 - 34	23	15 - 34	14 - 35
35 - 39	29	20 - 39	18 - 41
40 - 44	27	19 - 36	17 - 40
45 - 49	26	15 - 41	12 - 45
50 - 59	26	15 - 41	12 - 45
60 Plus	21	11 - 35	8 - 39
ALL AGES	22	19 - 25	19 - 25

The age group 35 - 39 which showed the lowest probable personal incidence of overcrowding, shows the highest personal incidence of crowding, (29% (p.)).

The lower age groups with the exception of age group 5 - 9 fall below the probable average estimate of 22% personal incidence of crowding, and the higher age groups all fall above this estimate with the exception of the age group 60 plus.

TABLE IV (26).

Percentage of Persons in Uncrowded Households According to Age.

AGE.	PERCENTAGE UNCROWDED.		
	P.	LL.	C.L.
0 - 4	7	4 - 12	3 - 15
4 - 9	4	2 - 10	1 - 11
10 - 14	6	3 - 12	2 - 15
15 - 19	1	0 - 4	0 - 5
20 - 24	9	5 - 16	4 - 19
25 - 29	7	4 - 14	3 - 15
30 - 34	24	16 - 33	13 - 36
35 - 39	23	15 - 34	14 - 35
40 - 44	18	11 - 27	9 - 30
45 - 49	18	9 - 32	7 - 37
50 - 59	14	5 - 26	4 - 31
60 Plus	12	5 - 25	4 - 28
ALL AGES	12	10 - 14	9 - 14

As could be expected from Table IV (24), the lower age group including group 25 - 29 have less attachment to uncrowded households than the higher age groups.

TABLE IV (27).

Personal Incidence of Overcrowding plus Crowding According to Age.

AGE.	PERCENTAGE INCIDENCE.		
	P.	LL.	C.L.
0 - 4	93	87 - 96	83 - 97
5 - 9	96	90 - 99	89 - 99
10 - 14	88	80 - 93	79 - 95
15 - 19	91	84 - 96	80 - 97
20 - 24	91	84 - 96	80 - 97
25 - 29	83	75 - 90	72 - 92
30 - 34	76	66 - 81	64 - 86
35 - 39	77	68 - 85	65 - 86
40 - 44	82	73 - 88	70 - 91
45 - 49	82	69 - 91	65 - 94
50 - 59	86	74 - 93	71 - 96
60 Plus	97	96 - 98	96 - 98
ALL AGES	88	77 - 95	73 - 96

It thus appears that out of every 10 persons in Orlando, 8 to 9 persons are living in unsatisfactory conditions. In no age group do we find less than 76% (P) of the persons to be living in unsatisfactory conditions and we can say with virtual certainty that no less than 64% of the persons in Orlando live in unsatisfactory conditions.

TABLE IV (28).

Age Distribution of Total Population.

AGE.	PERCENTAGE DISTRIBUTION.		
	P.	LL.	C.L.
0 - 4	13	12 - 15	11 - 15
5 - 9	11	7 - 13	9 - 14
10 - 14	10	9 - 12	8 - 12
15 - 19	8	6 - 9	6 - 10
20 - 24	9	7 - 11	7 - 11
25 - 29	8	7 - 10	6 - 10
30 - 34	8	7 - 10	6 - 10
35 - 39	8	7 - 10	6 - 10
40 - 44	8	7 - 10	6 - 10
45 - 49	6	4 - 7	4 - 8
50 - 59	5	4 - 7	4 - 7
60 Plus	5	4 - 6	3 - 6
ALL AGES	100	100	100

42% of the Orlando population was under 20 years of age.

24% of the population was under 10 years of age.

TABLE IV (29).

Age Distribution of Overcrowded Persons.

AGE.	PERCENTAGE DISTRIBUTION		
	P.	L.L.	C.L.
0 - 4	15	13 - 17	12 - 18
5 - 9	12	10 - 14	9 - 15
10 - 14	12	10 - 14	9 - 15
15 - 19	9	7 - 11	6 - 12
20 - 24	10	8 - 12	7 - 13
25 - 29	8	7 - 10	6 - 11
30 - 34	7	6 - 9	5 - 10
35 - 39	6	5 - 7	4 - 8
40 - 44	7	6 - 9	5 - 10
45 - 49	4	3 - 5	3 - 5
50 - 59	4	3 - 5	3 - 5
60 Plus	5	4 - 6	3 - 7
Unknown.			
ALL AGES	100	100	100

A comparison of table IV (28) and the above table IV (29) shows that:-

- (1) Whereas 42% of the total population was under 20 years of age
48% of the overcrowded population was under 20 years of age.
- (2) Whereas 24% of the total population was under 10 years of age
27% of the overcrowded population fell into these age groups.

Age Distribution of Crowded Persons.

AGE.	PERCENTAGE DISTRIBUTION.		
	P.	LL	C.L.
0 - 4	11	7 - 15	6 - 16
5 - 9	12	8 - 16	6 - 18
10 - 14	9	6 - 14	5 - 15
15 - 19	5	3 - 8	3 - 9
20 - 24	7	4 - 11	3 - 12
25 - 29	10	6 - 15	6 - 16
30 - 34	9	6 - 14	5 - 15
35 - 39	11	7 - 15	6 - 16
40 - 44	10	6 - 15	6 - 16
45 - 49	7	4 - 11	3 - 12
50 - 59	5	3 - 8	3 - 9
60 Plus	4	3 - 7	2 - 8
ALL AGES	100	100	100

Only 23% of the crowded persons were under 10 years of age and 37% were under 20 years of age.

TABLE IV (31).

Age Distribution of Uncrowded Persons.

AGE.	PERCENTAGE DISTRIBUTION		
	P.	LL	C.L.
0 - 4	8	4 - 15	3 - 16
5 - 9	3	2 - 7	1 - 9
10 - 14	6	3 - 11	2 - 12
15 - 19	6	3 - 11	2 - 12
20 - 24	7	4 - 12	3 - 14
25 - 29	5	2 - 10	2 - 11
30 - 34	17	12 - 24	9 - 26
35 - 39	17	12 - 24	9 - 26
40 - 44	13	8 - 19	6 - 21
45 - 49	8	4 - 15	3 - 16
50 - 59	6	3 - 11	2 - 12
60 Plus	5	2 - 10	2 - 11
ALL AGES	100	100	100

A comparison of this table with the three previous tables shows that:-

- (1) Few uncrowded persons fall into the lower age groups whilst the majority of overcrowded persons fall within this group.
- (2) Only 11% of the uncrowded persons were under 10 years of age whilst of the total population 24% (P.) of the persons are in these age groups.
- (3) Only 23% of the uncrowded persons were under 20 years of age as compared with 42% in the total population.
- (4) 66% of the uncrowded persons were over 30 years of age as compared with 60% in the total population.

TABLE IV (32).

Age Distribution of Overcrowded plus Crowded Persons (M.O.S.)

AGE.	PERCENTAGE DISTRIBUTION.		
	P.	U.	C.L.
0 - 4	14	12 - 16	11 - 17
5 - 9	12	10 - 14	9 - 15
10 - 14	11	9 - 13	8 - 14
15 - 19	8	7 - 10	6 - 11
20 - 24	9	7 - 11	6 - 12
25 - 29	8	7 - 10	6 - 11
30 - 34	7	6 - 9	5 - 10
35 - 39	7	6 - 9	5 - 10
40 - 44	8	7 - 10	6 - 11
45 - 49	5	4 - 6	3 - 7
50 - 59	5	4 - 6	3 - 7
60 Plus	5	4 - 6	3 - 7
ALL AGES	100	100	100

In the age distribution of the persons unsatisfactorily housed we find only a slightly larger proportion in the lower age groups (45% (P.)) than in the distribution of the total population (42% (P.)).

CONCLUSIONS ON FINDINGS ON OVERCROWDING WHEN APPLYING THE
MINIMUM OCCUPANCY STANDARD:

To recapitulate:-

(1) When applying the stringent minimum Occupancy Standard as a measure of overcrowding to all enclosed structures within the dwellings in Orlando, it was found that half the households of Orlando are overcrowded (P) and that virtually not less than 42% of the Orlando households are overcrowded (1% risk of error).

The Cape Town Social Survey revealed the fact that 36% (P) of the Coloured households of Cape Town were overcrowded, the figure being 31 - 41% taking a 1% risk of error. Amongst the European households only 6% (P) were returned as overcrowded or taking a 1% risk of error, from 4 - 8%.

In the Durban housing Survey it was found that when kitchens used as living rooms are counted as rooms the overcrowding figure for Native households according to the Cape Survey Standard, was 24.7%.

The Merseyside Survey found that 10.8% of the total families sampled were living in overcrowded conditions. (12)

These comparative results provide sufficient evidence of the alarming position of housing conditions in Orlando Township.

(2) Combining overcrowded and crowded households, it was further found that 73% (P) of the households of Orlando are living in unsatisfactory conditions.

(3) In measuring the degree of overcrowding by the surplus number of rooms required it was found that a slight preponderance (47%) of the households would need two more rooms to alleviate the overcrowding whilst 45% would need one more room to alleviate overcrowding - 6% needed 3 more rooms and 2% 4 more rooms.

(12) See Survey of Merseyside Vol. I Page 172.

(4) The 4-roomed structures show a comparatively low incidence of overcrowding (13% (P)) whilst the one- two- and three-roomed dwellings, all show a probable incidence of overcrowding of half or more of the households. As one would expect, overcrowding is found to be less acute in the larger structures than in the smaller structures. Similar results were obtained in the Durban Housing Survey.

(5) Analysing the incidence of overcrowding according to the type of house it was found that over half the shelters (P.) are overcrowded, half the old houses (P.) are overcrowded and the new houses showed the least incidence of overcrowding (42% (P.)). The width of the margins and approximation for the latter, make it impossible however, to give any conclusive evidence that they are more satisfactory than the former types of house.

(6) It was found that there is no relation between overcrowding and low income of the household. On the contrary, the most overcrowding was found in household with high incomes. This can be partly attributed to the fact that households with high incomes are often households with several earners and thus are composed of many persons. This would nevertheless seem to indicate that were larger houses available quite a number of the overcrowded households may be able to avail themselves of them. In this connection it is interesting to note the findings of the Merseyside Survey.

Having analysed in detail the relationship between overcrowding and poverty The Merseyside Survey came to the conclusion that "over half the overcrowded families in the sample could probably afford to pay the higher rent required for more adequate accommodation. (13)

(7) (a) A study of the personal incidence of overcrowding revealed that the persons who suffered most from overcrowding were the young persons under 25 years of age and the old persons of 60 years of age. This is likely to have important consequences

(13) See Survey of Merseyside Vol. I (Page 172)

on the character, habits and attitudes of the future Bantu population in Orlando.

(13) It was further found that for all persons the most probable figure indicating the personal incidence of overcrowding was 66%. The Cape Town Social Survey found 46% (P.) of all Coloured persons in Cape Town to be overcrowded. The incidence in all the age groups below 15 years exceeded this figure.

The New Survey of London, Life and Labour, (14) revealed a similar trend, the personal incidence of overcrowding amongst children being higher than that amongst adults. The most severe test, when the number of bedrooms provided is less than the number needed revealed 37% of all persons as overcrowded. In the case of children the proportion was as high as 50%. The "Actual" overcrowding (i.e. considering all the rooms actually used for sleeping) showed 30% of all persons to be overcrowded and 42% of the children to be overcrowded.

The 'necessary' overcrowding was 22% for all persons and 33% for children. 'Children' in this survey refer to persons 14 and under.

Similarly in the Merseyside Survey it was found that of all the persons sampled 22.2% were overcrowded. Of children 0- 13, 27.7% were overcrowded, and of the children 14 - 20, 27.7% were overcrowded.

(b) Again the Orlando Survey found 88% (P.) of the persons to be living in unsatisfactory conditions (i.e. combining those overcrowded and crowded) the true figure lying between 73% and 96% (taking a 1% risk of error).

In Cape Town it was found that 76% (P.) of the Coloured persons lived in unsatisfactory conditions, the true figure lying between 72 - 80% (taking a 1% risk of error).

The probable estimate of overcrowding for the ages below 25 in the Cape Town Social Survey and the Orlando Survey, showed a higher incidence than their respective average figures, with the exception of the age group 15 - 19 in the Cape Town Survey which was equal to the average 76% (P.).

(14) See New Survey of London, Life and Labour Vol. III Page 231.

There seems to be conclusive evidence therefore that:-

(a) Orlando Township shows a higher incidence of overcrowding amongst its households than both the Coloured households of Cape Town and the Native households of Durban.

(b) That the incidence of overcrowding amongst the age groups shows a similar trend to that found in other surveys, the younger age groups being the ones to suffer most from overcrowding; but that Orlando shows a more acute personal incidence of overcrowding than the Cape Town Coloured population (1938 - 1939) the Merseyside sampled population (1934) and the London (Eastern Area) working population (1932).

THE APPLICATION OF LIVING ROOM OCCUPANCY STANDARD TO ORLANDO.

Having applied the Minimum Occupancy Standard to the sample households it was found that were the households to be provided with the accommodation laid down by this Standard, about 60% (P.) of the households would be living in dwellings wherein all the rooms were being used for sleeping purposes. Since in the Orlando houses no separate provision is made for a kitchen, a 2-roomed house being literally two rooms - one a kitchen/living room and the other presumably a bedroom, it was deemed necessary to apply a further standard. This Standard is based on the assumption that each household should have at least one room which need not be used for sleeping purposes, this room to be kept as cooking and living space.

The following table indicates the percentage of households overcrowded and uncrowded when the Living Room Occupancy Standard (L.R.O.S.) is applied.

TABLE IV (33).

Percentage of Overcrowded, Crowded and Uncrowded Households According to the Living Room Occupancy Standard:

	HOUSEHOLDS IN PERCENTAGES.		
	P.	L.L.	L.L.
Overcrowded	81	75 - 86	73 - 87
Crowded	15	11 - 20	10 - 22
Uncrowded	4	3 - 7	2 - 9

When applying the Living Room Occupancy Standard about four out of every five houses in Orlando are found to be overcrowded whilst only two of every 50 houses in Orlando are uncrowded.

Combining overcrowded with crowded we find that probably 96% of the households in Orlando are living under unsatisfactory conditions. Taking a 5% risk of error, we find 96 - 98% of the households in Orlando living in unsatisfactory

conditions and it can be stated with virtual certainty that not less than 93% and not more than 99% of the households in Orlando are living in unsatisfactory conditions.

Since in estimating the housing needs (See Part 5) estimates have been based both on the Minimum Occupancy Standards, and the Living Room Occupancy Standards, it is interesting at this stage to see the incidence of overcrowded and uncrowded households in relation to the deficient and surplus number of rooms required to fulfil the Standard exactly.

TABLE IV (34)

The Degree of Overcrowding (L.R.O.S.) by the Number of Rooms Overcrowded.

No. of Rooms.	HOUSEHOLDS IN PERCENTAGES.		
	P.	L.L.	C.L.
1	41	32 - 50	30 - 53
2	36	28 - 45	25 - 47
3	19	13 - 27	11 - 29
4	3	0 - 7	0 - 10
5	1	0 - 4	0 - 5
TOTAL	100	100	100

TABLE IV (35)

The Degree of Uncrowded Households (L.R. O.S.) by the Numbers of Rooms Uncrowded.

ROOMS.	HOUSEHOLDS IN PERCENTAGES.		
	P.	L.L.	C.L.
1	89	50 - 100	41 - 100
2	11	0 - 50	0 - 60
3	0	0 - 31	0 - 41
4	0	0 - 31	0 - 41
5	0	0 - 31	0 - 41
TOTAL	100	100	100

Whilst the width of the "Limits" in the last table (due to the small numbers in the sample falling into this category) make any decisive conclusion impossible, a comparison of the last two tables (IV (34) and IV (35) would indicate a wider dispersion of overcrowded households (by 1 - 5 rooms) whilst the uncrowded households appear to be overcrowded mainly by 1 room with a small proportion overcrowded by 2 rooms.

CONCLUSION:

It thus appears that whereas when all the enclosed structures in a dwelling are used for sleeping including the living-kitchen, 50% (P.) (M.O.S.) of the households in Orlando are overcrowded. When provision is made for the living-kitchen to be kept as daytime living space and only the rooms provided by the Municipality counted in applying the standard, 81% (P) of the households in Orlando are overcrowded, the true figure lying between 73 - 87% (taking a 1% risk of error).

(The percentage of working class family tenements in the Eastern Area of the New Survey of London found to be overcrowded, was 16).

Whereas 78% (p) of the households were rated as unsatisfactory by the Minimum Occupancy Standard, we find 96% (P.) of the households to be so rated by the Living Room Occupancy Standard.

Again, whilst the Minimum Occupancy Standard showed nearly 1 in 10 of the overcrowded households to be overcrowded by over 3 rooms, the Living Room Occupancy Standard shows from 2 - 2½ in 10 of the overcrowded households to be overcrowded by over 3 rooms.

There is indeed cause for dissatisfaction!

PART V.

ESTIMATING HOUSING NEEDS.

"Two processes are at work in the life of a population. One is growth, which includes both increase and decrease in size. The other is differentiation, by which I mean, differences in the structure of the population brought about by the grouping of individuals into separate units. Growth concerns changes in the number and conditions of the individuals of which the population is composed, differentiation concerns changes in the numbers and conditions of the group or units formed by the individuals.

Differentiation so defined, includes a variety of processes by which the life of the population is affected. So far as housing is concerned, we are particularly interested in these units called families and households."⁽¹⁾

There is much confusion in the definition and therefore the application of the two words "household" and "Family".

...."This use of the words as being interchangeable is in fact a common feature of our language. But the household is primarily an economic or social unit established by a person living alone, or by social persons related or not related by marriage or kinship living together to carry out in common certain house keeping functions".....⁽²⁾

-
- (1) Block - "Estimating Housing Needs".
(2) Ibid.

Whereas/....

Whereas the term "family" should be reserved exclusively to denote the biological unit whose essential attribute is the married couple.

Defining the words in this fashion we arrive at the conclusion that there can be both households without families and families without households.

Of interest therefore is the incidence of both these when estimating housing needs.

In Orlando we find -

P 17% of the households to be without families.

LL 13-23% -do-

CL 12-24% -do-

and

P 26% of the families to be without households

LL 22-32% -do-

CL 20-34% -do-

It is further apparent that there can be more than one household per dwelling - i.e. where two households (as defined above) carry out certain housekeeping functions, as the separate units. This state of affairs was however/....

however no where found in the sample investigation of Orlando. It was found that only very few households containing persons not belonging to that family, actually received money in the form of payment for residence. Most such persons merely contributed their share to the household expenditure by bringing food home whilst the head of the house remained solely responsible for the rent.

This observed trend is probably attributable to two main factors:-

- (1) The Bantu Tribal Concept of the "head" of the house and the fact that hospitality was always offered - never sold.
- (2) The restricted space within the house making it practically impossible for persons living together in one dwelling to function as separate households.

Thus in all cases in the Orlando Survey the term "household" is synonymous with all persons living within a dwelling.

In estimating the housing needs of the population of Orlando as revealed by the sample investigation the problem has been approached from both the point of view of the household and that of the family.

Firstly/....

Firstly, an estimate of the size of the houses required in order to house adequately the households as they existed at the time of the investigation, has been arrived at.

Secondly, working from the premise that each family should be provided with a separate dwelling, the number and the size of the houses required to house the families found in Orlando has been estimated. In doing this however a difficulty arising from Native custom was encountered. As has been pointed earlier, kinship duties are a dominant aspect of Bantu tribal life. To most Bantu a sister's child in the case of a woman, or a brother's child in the case of a man, are considered as ones own children and have an equal claim to house and protection as ones own biological offspring. Again, hospitality was never refused to kinsmen. This concept, so inbred in the Bantu seems to be one of the most tenacious remnants of tribalisation, still commonly obtained in the urban areas.

In the urban areas where accomodation is so difficult to obtain, these duties still make it obligatory for a person to take in relatives who cannot find accomodation. Table III (4) shows how only 37% of the sample households consist of Tenant Natural Families whilst 43% contain unmarried dependants and 22% contain married relatives.⁽³⁾

(3) These figures are given taking all households containing e.g. unmarried relatives, as a %age of the total households irrespective of whether they contain other married relatives, sub-tenants, etc. or not.

Thus having estimated the needs of all the families, observed, there remain a number of single persons not qualifying for a separate dwelling, yet not belonging to the families.

The single unrelated persons could definitely be provided for in bachelor accomodation. The single related persons claim hospitality from their relatives who consider them as part of their family. Thus a third set of tables have been completed, estimating the size of the houses required when these single relatives are included as members of the tenant family.

In all three, estimated computations have been based on both the Minimum Occupancy Standard and the Living room occupancy Standard⁽⁴⁾. Both these standards take into consideration sex, age and marital status.

A. THE HOUSING NEEDS OF HOUSEHOLDS IN ORLANDO.

Applying the "Minimum Occupancy Standard" requirements to the households as they were found in the sample investigation of Orlando we estimate the housing requirements to be:...

(4) For definition of standards see Page 151

TABLE V (1)

HOUSING REQUIREMENTS OF HOUSEHOLDS ACCORDING TO SIZE OF DWELLING,
BASED ON THE M.O.S. & L.R.O.S.

NO. OF ROOMS	NO. OF HOUSES & PERCENTAGES M.O.S.			NO. OF ROOMS	NO. OF HOUSES & PERCENTAGES L.R.O.S.		
	P	LL	CL		P	LL	CL
1	18	13-24	12-26	1	0	0-2	0-3
2	21	14-27	14-28	2	19	15-25	14-26
3	22	16-28	15-30	3	32	26-38	24-40
4	30	24-37	23-28	4	32	26-38	24-40
5	7	3-11	3-11	5	15	11-20	10-22
6	2	1-3	0-5	6	3	2-7	1-8
ALL ROOMS	100	100	100	ALL ROOMS	100	100	100

In order to provide the present households in Orlando with houses in which one room could be kept entirely for the purpose of cooking and living whilst still ensuring the basic requirements of sex separation, and a maximum of 2½ adults per sleeping/...

sleeping room, one would have to plan approximately half the houses as two and three-roomed dwellings and half as four, five and six-roomed dwellings. No one-roomed dwellings would be provided when applying the L.R.O.S. requirements.

TABLE V (2)

PRESENT HOUSING POSITION IN ORLANDO
ACCORDING TO THE SIZE OF THE DWELLINGS

NO. OF ROOMS	NO. OF HOUSES IN PERCENTAGES		
	P	LL	CL
1	31	25-38	24-40
2	39	33-46	31-48
3	24	19-30	18-32
4	6	4-10	3-11
5	0	0-2	0-3
6	0	0-2	0-3
ALL ROOMS	100	100	100

A comparison of the present housing position of households in Orlando with the housing requirements laid down by the Minimum Occupancy Standard and the Living Room Occupancy Standard reveals that:-

- (1) Whereas 94% (P) of the houses provided in Orlando are 1, 2 and 3 roomed, the Minimum Occupancy Standard requirements revealed that only 61% (P) of the households in Orlando require dwellings of one, two and three rooms; and applying the living room occupancy standard we find that only 51% of the households in Orlando would require one, two and three-roomed dwellings.
- (2) Consequently, whilst in Orlando only 6% (P) of the dwellings are four-roomed, 30% (P) of the households require four-roomed dwellings according to the M.O.S. requirements and 32% require four-roomed dwellings according to the Living Room Occupancy Standard, there being no less than 23% and 24% respectively of the households requiring four-roomed dwellings (one per cent. level of significance).
- (3) Whereas no five or six-roomed dwellings are provided in Orlando, the application of Minimum Occupancy Standard requirements reveals that 9% (P) of the households would require houses of that size and the Living Room Occupancy Standard requirements that 18% (P) of the households require dwellings of five and six rooms, 12% being the lowest per centage, (taking a one per cent. risk of error).

The/...

The following table shows how the present distribution of the houses according to size should be adjusted to provide adequate housing for the households of Orlando. Both the M.O.S. and the L.R.O.S. requirements are considered (for this purpose only (P) is utilised).

TABLE V (3)

DISTRIBUTION OF HOUSES IN ORLANDO ACCORDING TO SIZE SHOWING SURPLUS AND DEFICIENCY OF EACH TYPE ACCORDING TO THE M.O.S. AND L.R.O.S.

No. of Rooms	Distribution P	<u>Percentages</u>			
		Surplus M.O.S. P	L.R.O.S. P	Deficiency M.O.S. P	L.R.O.S. P
1	31	13	31	-	-
2	39	18	20	-	-
3	24	2	-	-	8
4	6	-	-	24	26
5	0	-	-	7	15
6	0	-	-	2	2

B. HOUSING NEEDS OF NATURAL FAMILIES IN ORLANDO.

Having considered the needs of the Households in Orlando, we now come to the needs of the Natural Families found in Orlando.

In computing the following tables it has been assumed that all married persons living in Orlando should be provided with a house irrespective of the present domicile of the wife and family.

The Natural Family includes both or one of the parents with the offspring of either and any adopted children. It does not include however, dependants who have a claim according to Native custom.

The tables are presented showing firstly, the houses required to house adequately all the Tenant Natural Families, Table VI(6). The next table (VI (7)) shows the additional houses required to house the families of married persons living in Orlando who have no houses. The third table (VI (8)) shows the number of houses according to their size needed to house all these natural families i.e. Table VI (6) and Table VI (7) combined.

Table V (4)/...

TABLE V (4)

HOUSING REQUIREMENTS OF TENANT NATURAL FAMILIES IN ORLANDO BASED ON THE M.O.S. AND
THE L.R.O.S. ACCORDING TO SIZE OF DWELLING REQUIRED.

NO. OF ROOMS	NO. OF HOUSES REQUIRED IN PERCENTAGE					
	M.O.S.			L.R.O.S.		
	P	LL	CL	P	LL	CL
1	18	14-24	11-25	0	-	-
2	24	19-29	16-32	18	14-24	11-25
3	26	20-31	19-35	36	29-41	27-44
4	24	19-29	16-32	33	26-27	25-40
5	7	4-11	3-12	10	6-15	6-16
6	1	0-4	0-5	3	1-5	1-5
7	-	-	-	0	0-2	0-3
ALL ROOMS	100	100	100	100	100	100

Having/.....

Having stripped the dwellings of all but their "legal" tenants, i.e. the tenant's natural family, we still find a surplus of one room and two-roomed dwellings in Orlando and a probable deficiency of three, four, five and six-roomed dwellings. Taking a one per cent. risk of error there should not be less than 25% of the dwellings one-roomed and we find 23-38% of Orlando dwellings to be one-roomed the most probable figures being 18% and 31% respectively.

Taking the cautious limit there should not be more than 32% of the dwellings in the two-roomed category, the most probable figure being 24%, whilst in Orlando we find 39% (P) of the dwellings to be two-roomed.

The three-roomed houses seem to be fairly well proportioned showing a probable deficiency of only 2%.

But, whilst 24% (P) of the houses should be four-roomed, it can be assumed with virtual certainty that no less than 16% should be four-roomed in order to house only the tenants' own families, only 6% of the houses in Orlando were four-roomed.

And whilst 8% (P) of the houses should be five and six-roomed and certainly no less than 4%, and as many as 15% (CL) should be five and six-roomed houses. Orlando has no houses of that size.

Table V (5)/.....

TABLE V (5)

HOUSING REQUIREMENTS OF NATURAL FAMILIES WITH NO HOUSE IN ORLANDO BUT WHO HAVE
ONE SPOUSE RESIDENT IN ORLANDO.

ACCORDING TO SIZE OF DWELLING REQUIRED

NO. OF ROOMS	NO. OF HOUSES REQUIRED IN PERCENTAGE					
	M.O.S.			L.R.O.S.		
	P	LL	CL	P	LL	CL
1	43	33-53	30-56	0	0	0
2	38	29-48	27-52	43	33-53	30-56
3	13	8-22	6-24	44	34-54	31-51
4	6	3-13	3-15	11	5-19	4-21
5	0	0-03	0-5	1	0-5	0-6
6	0	0-3	0-5	0	0-3	0-5
7	0	0-3	0-5	0	0-3	0-5
ALL ROOMS	100	100	100	100	100	100

N/....

A comparison of Table VI (7) and Table VI (6) seems to indicate that the Natural Families who have no houses in Orlando are smaller than the Tenant Natural Families, only 42% of the Tenant Natural Families requiring one and two-rooms (M.O.S.) whilst 81% of the other Natural Families would require one and two-roomed dwellings (M.O.S.). This observation may possibly be attributed to the following factors:-

- (1) It was found that 60% (P) of these other families in fact have only one of the parents in Johannesburg (usually the men) whilst the wife and family are left in the Reserves or on the Farms. This separation of the couples would then result in a lower birth rate. Such families would have less children than families where both spouses are living together such as in the case of the tenant family.
- (2) That many of the sub-tenant families are recently married persons - this however is doubtful.
- (3) That the data for other families is probably less reliable than the data for the tenant families, since there were fewer means of checking the number in a person's family when his family was not resident in Orlando.

Let us now consider the requirements of all Natural Families found to have one spouse living in Orlando.

Table V (6)/...

TABLE V (6)

HOUSING REQUIREMENTS OF ALL NATURAL FAMILIES IN ORLANDO BASED ON THE MINIMUM
OCCUPANCY STANDARD AND THE LIVING ROOM OCCUPANCY STANDARD.

ACCORDING TO THE SIZE OF THE HOUSE REQUIRED

NO. OF ROOMS	NO. OF HOUSES REQUIRED IN PERCENTAGES					
	M.O.S.			L.R.O.S.		
	P	LL	CL	P	LL	CL
1	24	20-30	18-32	-	-	-
2	28	23-35	22-36	24	20-30	18-32
3	23	18-28	17-31	38	33-45	30-48
4	19	15-24	13-26	28	23-35	22-36
5	5	3-9	2-10	7	4-11	4-12
6	1	0-3	0-3	2	1-4	0-5
7	0	0-2	0-3	0	0-2	0-3
ALL ROOMS	100	100	100	100	100	100

It/...

It thus appears that 309 natural families are housed in 230 dwellings giving us an average of 1.3 families per dwelling.

C. THE HOUSING NEEDS OF EXTENDED FAMILIES IN ORLANDO.

Since, whether the controllers of Native urban houses recognise the claim of unmarried relatives to the house or not, these persons will still be taken in and sheltered by their so-called "fathers", and "mothers", it is important for the sociologist to view the housing requirements in the light of this existing social phenomenon.

Computations of the housing requirements when these unmarried relatives found living in Orlando are added to the Tenant Natural Families have thus been made. The percentage of households in Orlando containing single relatives is as follows:-

P	30
LL	25-32
CL	23-38.

Table V (7)/....

TABLE V (7)

HOUSING REQUIREMENTS OF THE EXTENDED FAMILIES IN ORLANDO ACCORDING TO THE M.O.S.
AND THE L.R.O.S. ACCORDING TO THE SIZE OF THE HOUSE REQUIRED.

NO. OF ROOMS	NO. OF HOUSES REQUIRED IN PERCENTAGE					
	M.O.S.			L.R.O.S.		
	P	LL	CL	P	LL	CL
1	0	0-4	0-6	0	0-4	0-6
2	23	14-32	12-35	0	0-4	0-6
3	28	17-36	16-39	33	22-42	20-45
4	36	26-46	24-49	36	26-46	24-49
5	11	5-19	4-21	26	16-36	15-38
6	1	0-4	0-6	4	2-0	1-11
ALL ROOMS	100	100	100	100	100	100

Thus whilst the majority size of the dwelling required by the Tenant Natural Families were three rooms (P) it was four rooms (P) for the extended families. Considering/...

Considering all the houses of Orlando and making allowances for the unmarried relative dependants, the following are the housing requirements:-

TABLE V (c)

HOUSING REQUIREMENTS OF TENANT NATURAL FAMILIES PLUS EXTENDED FAMILIES IN ORLANDO
BASED ON THE M.O.S. AND THE L.R.O.S. ACCORDING TO THE
REQUIRED SIZE OF THE DWELLINGS.

NO. OF ROOMS	NO. OF HOUSES REQUIRED IN PERCENTAGE					
	M.O.S.			L.R.O.S.		
	P	LL	CL	P	LL	CL
1	12	18-17	6-19	0	0-2	0-3
2	23	18-28	16-31	12	8-17	6-19
3	25	20-31	18-33	34	28-40	26-41
4	29	24-35	21-37	36	30-42	28-44
5	9	6-14	4-16	14	10-19	9-21
6	1	0-3	0-4	4	2-8	1-9
7	0	0-2	0-3	0	0-2	0-3
ALL ROOMS	100	100	100	100	100	100

Computating/...

Computating Table V (10) with Table VI we find that :-

- (1) Whereas 42% (P) of the Tenant Natural Families would need houses of two and one rooms, (M.O.S.) when the unmarried relatives are included only 35% of the families would be housed adequately (M.O.S.) in two and one-roomed structures. Correspondingly 18% of the Tenant Natural Families who would be adequately housed in two-roomed dwellings (L.R.O.S.) drops to 12% when the relatives are considered.
- (2) When considering the Tenant Natural Families only we find that 50% (P) would be adequately housed (M.O.S.) in three and four-roomed houses, whilst when the single relatives are considered 54% (P) of the houses would have to be three and four-roomed. Further whereas for the Tenant Natural Families slightly more three-roomed houses than four-roomed houses would be required (2% (P) more M.O.S.), when considering the Extended Families as well, we find that more four-roomed houses than three-roomed houses would be required (4% (P) more) M.O.S.

D. ESTIMATING BACHELORS' NEEDS.

Having estimated the needs of all Natural Families and Tenant Natural Families as well as Tenant Extended Families we still find a number of unrelated single persons requiring accomodation. These have no claim to the houses in Orlando and should be

provided/...

provided for by Bachelor accomodation. These however occurred in only 6% (P) of the households of Orlando and composed only 1.6% of the total sampled population. Only one unrelated, unattached female was found and 19 males. Reflecting these small numbers over the population of Orlando one could estimate that Orlando probably contains 1,000 unmarried persons who are not related to any of the Tenant Families, and who require Bachelor accomodation. The rate of females to males is probably 1 : 19.

Taking all single persons who do not belong to the Tenant Natural Family we find 115 such persons comprising 9.7% of the total sampled population. Reflecting this on the whole population of Orlando we find that Orlando probably has 5,750 single persons who do not belong to the Tenant Natural Family and who could, if disregarding Native customs be accomodated in single bachelor's quarters. The ratio of males to females is probably 91 : 25 or approximately 18 : 5.

Thirty per cent. of the sample households contained single persons not belonging to their own immediate family. For the entire population the figures would be:-

P	30%
LL	25-32
CL	23-38.

Whilst/....

Whilst to the Sociologist the above methods of estimating housing needs which consider the needs according to age and sex are essential, it was deemed valuable to work out further estimates based on the Building Research Institute Standard. This standard is more generous in its Occupancy allocation specifying a maximum of 2 persons per room as opposed to the 2½ in the M.O.S. and the L.R.O.S. but on the other hand does not consider sex. Moreover the age basis is different.

E. THE BUILDING RESEARCH INSTITUTE STANDARD.

In the Report of the Sub-Committee on House Planning and Design we find the following recommendations concerning the estimation of housing needs:-

"In assessing the housing capacity of existing and future dwellings, it is desirable to establish some standard basis so as to avoid miscalculations which may lead either to under or overcrowding. A useful method of calculating such a standard basis is to work primarily on the capacity of bedrooms the minimum sizes of which are given in a later section of the report, and to presume that, with the exception of bed-sitting rooms, which may be permissible in certain circumstances, and of two-roomed dwellings in which the parents are accommodated in the larger bed-sitting room and the children in the smaller bed-room, the living room shall not be considered as providing sleeping accommodation.

On this basis, the Sub-Committee recommends that the following maximum numbers of persons accommodated be laid down in respect of the various sizes of dwelling states.

a bed-sitting room.....	2 persons
dwellings with one bedroom.....	2 persons
" " two "	4 persons
" " three "	6 persons
" " four "	8 persons

For purposes of computation it should be assumed that each adult or child over one year old counts as one and that infants under one year old are not counted. These figures should apply to all races."

The/...

The Sub-Committee further gives the following proportionate distribution of dwellings as a general guide:-

60%	of all dwellings to contain 3 bedrooms
28%	" " " " " 2 bedrooms
6%	" " " " " not less than 4 bedrooms
6%	" " " " " 1 bedroom.

It is emphatically stressed however that these figures are given as an indication only, and that

"before thoroughly reliable figures can be obtained for any particular case therefore, the techniques of sample survey and statistical analysis mentioned earlier will have to be applied."

The Standard quoted above given by the Sub-Committee was applied to the Orlando Sample Investigation Results - firstly to the households as they exist now, secondly to the Tenant Natural Families i.e. including all their immediate dependants and thirdly, to the Tenant Extended Family i.e. including persons who have a claim to the house by Native Custom.

Table V (9)/....

TABLE V (9)

HOUSING REQUIREMENTS OF HOUSEHOLDS IN ORLANDO BASED ON THE BUILDING RESEARCH
INSTITUTE STANDARD.

NO. OF BEDROOMS	HOUSES REQUIRED IN PERCENTAGES			
	ORLANDO			RECOMMENDED
	P	LL	CL	
1	15	11-20	10-22	6
2	30	25-36	23-38	28
3	23	18-28	17-30	60
4	21	16-26	14-28	6
5	9	6-14	5-15	0
6	3	2-7	2-7	0
7	1	0-2	0-3	0
TOTAL	100	100	100	100

The/...

The preceeding table indicates that the Orlando population as it exists requires:-

- (1) More one-bedroomed houses are recommended;
- (2) Approximately the same number of two-bedroomed houses as recommended;
- (3) Far less three-bedroomed houses than are recommended, the proportion required not exceeding 30% (taking a 1% risk of error) whilst the proportion recommended is 60%;
- (4) Far more houses with more than four-bedrooms than are recommended. The proportion recommended is 6% whilst the Orlando households show a probable need for 30% of the houses to have four bedrooms and more, the likely limits being 23% - 39%.
- (5) A comparatively high proportion of five bedroomed houses - 9% (P) which is certainly not lower than five per cent. and may be as high as 15% (1% level).

This high proportion of multi-bedroomed houses required may be attributable to the housing shortage, and therefore of greater value is the consideration of the size of houses required to house Natural Families. The Tenant Natural Families of Orlando are taken as an indication of this.⁽¹⁾

(1) The Families are taken including all their dependant children whether they are living in Orlando or not.

TABLE V (10)

HOUSING NEEDS OF TENANT NATURAL FAMILY BASED ON THE BUILDING RESEARCH INSTITUTE
STANDARD.

NO. OF BEDROOMS	HOUSES REQUIRED IN PERCENTAGES			
	ORLANDO			RECOMMENDED
	P	LL	CL	
1	14	10-19	9-20	6
2	31	25-37	23-39	28
3	30	25-36	23-38	60
4	17	13-23	12-25	6
5	6	3-9	2-10	0
6	1	0-2	0-3	0
7	1	0-2	0-3	0
TOTAL	100	100	100	100

Considering/...

Considering the needs of the Tenant Natural Family we find that the proportion of one-roomed and two-bedroomed houses required remain similar to those of the households but that an increase in the need for three-bedroomed houses occurs. This however still remains far below that recommended by the Building Research Institute (60%) the demand not exceeding 38% (taking a 1% risk of error).

We further find a decrease in the need for houses with four bedrooms or more, but the demand of Orlando Tenant Families still remains far above the percentage recommended, being 25% (P), 18-33% (11). Thus not less than 18% would be requiring houses with four bedrooms or more.

But since Africans in the urban areas still retain many of their kinship obligations it is further necessary to estimate the needs of families including their unmarried relatives who would claim their hospitality. The following table indicates the needs of the Tenant Extended Families of Orlando -

Table V (11)/....

TABLE V (11)

HOUSING NEEDS OF TENANT EXTENDED FAMILIES BASED ON THE BUILDING RESEARCH INSTITUTE
STANDARD.

BEDROOMS	HOUSES REQUIRED IN PERCENTAGES			
	ORLANDO			RECOMMENDED
	F	LL	CL	
1	10	8-15	5-16	6
2	28	23-34	22-35	28
3	28	23-34	22-35	60
4	21	16-26	14-28	6
5	10	8-15	5-16	0
6	1	0-2	0-3	0
7	2	1-3	0-3	0
TOTAL	100	100	100	100

Having/.....

Having included the unmarried relatives of the tenants in the Tenants Natural Family we find that the probable need for one and two-bedroomed houses drops slightly, that for three-bedroomed houses it remains much the same and that the need for houses with four bedrooms or more rises from 25% (P) for the Tenants Natural Family to 34% (P) for the Tenants Extended Family, there not being less than 22% requiring houses with four or more bedrooms (1% level).

F. THE ECONOMICS OF HOUSING.

"One extremely important aspect having a direct bearing on the standards of housing accommodation which can be achieved under any given circumstances is the question of the direct contribution which the tenant is capable of paying in rent. In housing financed on the basis of an economic return, the maximum rental which can be charged has a direct and decisive bearing upon the standard of accommodation it is possible to offer. Where subsidies, rate rebates or other forms of assistance are in operation, usually for social reasons, such subsidies act as a buffer tending to render less direct the effects of rent upon the accommodation standards provided. Nevertheless even where subsidies exist and rentals are a very important factor because the degree to which a local authority or private development company can shoulder its share of the burden of subsidies is by no means unlimited. In fact it is almost always the local authority which comes to the end of its resources first, thus setting an upper financial limit on the amount of house construction it finds itself able to carry out. The tendency exists therefore, and rightly so, to reduce the financial gap between the cost of what is considered to be a desirable type of residential environment and the ability of the tenants concerned to provide a reasonable economic return for it in the form of rent.

The question of rent is thus seen to be an important one and one which requires further study....."(1)

(1) Interim Report of the Sub-Committee on Social Trends, Building Research Institute, Pretoria, 1949.

Under the prevailing system it thus becomes necessary to plan housing not only according to the biological and social needs of the community but also considering the capacity for persons to pay for them in rentals. The tenants of Orlando realise this only too well and as was pointed out when discussing their attitudes to the houses, (2) the first question that arose when they were asked to consider the desirability of an improvement was - "Will I be able to afford the rent?" Not "Do I need this amenity?"

Of major importance therefore is the estimation of the maximum rentals which persons in each income group can afford. In Europe it is generally accepted that a family should not spend more than $\frac{1}{5}$ of its income on rent. In Johannesburg the City Council aims at providing housing at a rental which will not drain the family of more than $\frac{1}{6}$ of its income (3).

The estimated rentals that persons can afford given in the following table are based on the incomes of the households in the sample investigation, allowing $\frac{1}{6}$ of the entire household income for rent. This, if anything, over-estimates the income available for rent since we have seen that the head is usually held solely responsible for the rent whilst other persons in the family contribute towards expenses on food. In only a few households do other persons directly contribute to the rent but since this is a cultural and social factor and not an economic one, the income on which the estimates have been based is that of the entire household. Furthermore the gross family income has been considered. Estimates of family income usually comprise the entire earnings of the head, half of his wife's and $\frac{1}{3}$ of the children's income.

(2) Estimates of Rental are taken to the nearest shilling.

(3) See Annual Report of the Manager, Non-European Affairs Department for the period December, 1944 to 30th June, 1945.
Page 5 "Every effort is made to keep rents at a figure not exceeding $\frac{1}{6}$ of the family income of any individual tenant."

A further estimate has therefore been computed based on only the head's income. (4)

TABLE V (12)

ESTIMATED RENTALS WHICH HOUSEHOLDS IN ORLANDO CAN AFFORD TO PAY ACCORDING TO THEIR INCOME.

HOUSEHOLD INCOME	RENT	PERCENTAGE OF HOUSEHOLDS		
		P	LL	CL
0 - 4	9/-	6	3-10	3-11
5 - 9	26/-	5	3-8	2-10
10 - 14	40/-	20	15-26	14-27
15 - 19	56/-	20	15-26	14-27
20 - 24	72/-	20	15-26	14-27
25 - 29	89/-	10	7-15	6-16
30 - 34	106/-	6	3-10	3-11
35 - 39	137/-	3	2-6	1-7
40 - 44	141/-	4	2-8	2-9
45 - 49	153/-	1	0-3	0-4
50 - 74	203/-	1	0-3	0-4
75 - 109	256/-	0	0-2	0-2
110 - 114	370/-	0	0-2	0-2
Unknown	Unknown	3	2-6	1-7
TOTAL		100	100	100

We/....

(4) Estimates of rental are taken to the nearest shilling.

We find that about half the households in Orlando could not afford more than 56/- rentals per month. About one in ten cannot afford 26/- per month. The majority 60% (P) could afford between £2. and £3.12.0. rental per month were 1/6 of the gross income to be spent on rent.

15% (P) of the households are found to be able to afford over £5. in rentals per month.

These figures however relate to the gross household income including the total incomes of all persons living in the house irrespective of whether they contribute to household expenses or not. So these figures must be interpreted as what the households could potentially afford were all the resources drawn upon.

The following figures showing what rentals could be afforded when taking 1/6 of the head's income are possibly nearer the truth than the household income figures.

Table V (13)/....

TABLE V (13)

ESTIMATED RENTALS WHICH HOUSEHOLDS IN ORLANDO CAN AFFORD BASED ON HEADS INCOME

HEADS INCOME	RENTAL	PERCENTAGE OF HEADS		
		P	LL	CL
0 - 4	4/-	16	12-21	10-22
5 - 9	25/-	26	21-31	19-33
10 - 14	39/-	37	31-43	29-46
15 - 19	55/-	8	5-12	4-14
20 - 24	70/-	7	4-11	3-12
25 - 29	90/-	2	1-5	1-6
30 - 34	104/-	2	1-5	1-6
35 - 39	120/-	0	0-2	0-2
100 - 104	333/-	0	0-2	0-2
Unknown	Unknown	1	0-3	0-4
TOTAL		100	100	100

When/....

When considering only the heads income we find that 42% of the households of Orlando could not afford a rental exceeding £1.5. and that 79% (P) could not afford a rental exceeding £2. - certainly not less than 72% and as many as 86% (CL) falling into this category. Only 4% (P) are able to afford a rental exceeding £4.0.0.

A survey carried out by the Native Affairs Department in 1947 in order to estimate the average maximum rental that Natives can afford to pay estimated that Johannesburg Natives could afford to pay £1.10. in rental per month. (5) Since no indication as to how this was estimated or whether it related to individual, family or household income is given, it is not possible to compare the Orlando survey result with this figure.

(5) See Interim Report of the Sub-Committee on Social Trends, Building Research Institute, Pretoria, 1949, Appendix 4.

CONCLUSION.

"In conclusion we ought to realise that measurement is a means to an end; it is only a childish mind that delights in numbers for their own sake. On the one side, measurement should result in accurate and comprehensive description that makes possible the visualization of complex phenomena: or the other, it is necessary to the practical reformer that he may know the magnitude of the problem before him and make his plans on an adequate scale..."(12)

The need for more research as a preliminary to planing is apparent, and forcibly emphasized by the survey of Orlando, is the need for teams of persons specialised in all aspects of the problem, to cooperate in this research.

A comprehensive survey of our African population with a view to housing them would need the cooperative efforts of Sociologist, Anthropologist, Statistician, Demographer, Townplanner, Architect and Engineer. It is hoped that this survey, by its very limitations, will inspire others to tackle, on a vaster and more comprehensive scale, the important subject of housing the urban African community.

(12)

Bowley - The Measurement of Social Phenomena.

APPENDICES

APPENDIX A.

Definitions.

- (1) Household. - includes all persons living in a dwelling. Each household has a head and one head only.
- (2) Head.
- (a) Must be living within the house.
 - (b) (i) Is the person to whom the house has been leased by the Municipality (the registered tenant (R/T)) OR
(ii) the person who has taken the house over from the R/T and who is responsible to the office for the rent.
 - (c) If the R/T has died his wife becomes the head.
 - (d) When the R/T and/~~or~~ his wife are over 60, not earning and not in receipt of an Old Age Pension, the eldest earning child living in the dwelling becomes the head.
 - (e) When an adult is alone with children in a dwelling, the adult is head.
 - (f) Where the tenant is a female, who is having an illegal union with a man who supports her, he becomes the head.

Relationships within the household are expressed as relationships to the head.

- (3) Tenant Natural Family (T.N.F.) - refers to the head, the head's spouse plus children of either spouse and/or legally adopted children.
- (4) Extended family refers to :
T.N.F. and dependents i.e. (a) old parents,
(b) children's illegitimate children.
(c) unmarried nieces and nephews.
(d) unmarried sisters.
(e) unmarried cousins or any other unmarried relative in the household.

Does not include married relations or children in the household or their children.

- (5) Relative family includes -

Married relatives or children of the T.N.F. with or without-
(a) children.
(b) other dependents.

- (6) Sub-tenant (S/T) is a person, not related to the head, who is a member of a household irrespective of whether he/she contributes to the rent or other household expenditure.

- (7) Dependent is a person who depends on the head for food and shelter and who is related to the head.
- (8) Partial dependent is a related person who partially depends on the head for food and shelter, e.g. a domestic servant who sleeps at work but comes home at times; a child at boarding school.
- (9) Occupation is the way in which any person over the age of 15, who is not at school, is employing his time.
- (10) 'Woman' refers to a female 15 years and over who is not attending school.
- (11) Housewife is a married woman, not gainfully employed and not seeking work, who is supported by her husband, children or other persons.
- (12) An Unemployed person is one who is able and willing to work, whether previously employed or not, and who is unable to find employment.
- (13) Unemployable refers to a person who through illness, old age or through some other disability is unable to work.
- (14) Idle is a person other than a housewife, who is able but unwilling to work, who is not working, or seeking work, and who is not attending school.
- (15) Rent is the amount of money paid by the head or household to the Municipality, for a dwelling.
- (16) Fuel includes coal and wood. Excludes paraffin and candles.
- (17) Transport costs are recorded only for persons travelling to work.

APPENDIX B.

Minimum Requirements.

Catherine Bauer's (56) minimum housing requirements have been widely accepted and quoted. Miss Bauer points out that in a survey of eleven localities in America in which 4½ million dwellings had been put up with official aid since 1914-18 war, reveals that 90% of these dwellings adequately fulfilled these requirements.

DECENCY.

Requirements.

Sheltered unit suited to population groupings.

Sub-division of unit for carrying on ordinary functions.

Possibility of privacy.

Minimum Standards.

One structurally separate dwelling for each family or other natural unit.

Enough bedrooms so that parents, boys, girls, can sleep separately. In addition, a living-room and a kitchen or a living-room/kitchen.

Relatively sound-proof walls. No windows looking directly into windows of other dwellings.

HEALTH.

Facilities for cleanliness and sanitation.

Running water and flush toilet within each dwelling. Ventilation. Bath and shower, either in the dwelling, in the building or in the neighbourhood. (Depends as much on local habits as on absolute standards.)

(X) Adequate air and cross ventilation.

No dwelling more than two rooms deep in any part, which in apartment buildings ordinarily means no more than two dwellings per landing, if the stair-halls are also to be adequately ventilated.

As large a glass area as climate and heating provisions make practical.

Requirements.

Purity of air.

Maximum light and adequate sun in all rooms and public corridors.

Facilities for outdoor recreation.

AMENITY.

Attractive Outlook.

Moderately prepossessing architecture

(Note that these are

Quiet.

COMFORT & CONVENIENCE.

Domestic.

Minimum Standards.

Nonnoxious industrial or other fumes nearby.
No heavy traffic streets immediately adjacent.

No small courts. Definite proportion between height of buildings and open spaces between them.

Play spaces for small and larger children, walks, parks, athletic provisions, gardens conveniently located for adults.

Town and gardens visible from all windows.
Preservation of natural features of site in the Plan.

No paved inner courts.
No blighted or run-down areas adjacent.

Buildings which more or less obviously fulfil their purpose, of good materials and simple and direct in design.

Grouped harmoniously.
Plan clear and simple to follow, both physically and with the eye.

Adequately insulated walls.
No major traffic street immediately adjacent.
No noise-amplifying courtyards or side alleys.

Rooms designed to accommodate furniture and living habits and facilitate circulation and cleanliness.

Closets, cupboards, kitchen equipment (especially apparatus for cooking and hot water)

Laundry/...

Requirements.

Domestic.

Communal.

Minimum Standards.

Laundry and drying facilities, either within the dwelling, within the building, or, if within the community, centralised, with additional labour saving devices.

Electricity.

Not too many stairs to climb. Say, no more than four storeys or three flights.

In cold climates, adequate heating provision.

In hot climates, high enough ceilings.

Immediate or easy access to schools, necessary shops, cafes and social centres.

Work, let us say, not more than thirty minutes away at a maximum.

Some facilities for choice of dwelling and location on part of tenant and therefore possibility of natural population groupings.

SAFETY.

Fitness of Construction.

Play space for small children without crossing a through street.

Passably fire-proof.

Permanently immune from partial or total neighbourhood "blight".

Adequate and workable building codes.

Use of super-blocks, dead-end streets, or large open block - interior.

Regulations against predominantly wood construction except for isolated low dwellings.

Stairs and corridors wide and directly accessible to outside.

Communities planned, constructed and administered continuously as a functional unit.

.....

Catherine Bauer further points out that "properly directed, it should be cheaper to build good houses than bad ones."

APPENDIX C.

EXTRACTS FROM

"COMPETITION CONDITIONS FOR PROPOSED LAY-OUT OF KLIPSPRUIT No. 8."

The following requirements indicate the accommodation which the Promoters consider should be provided, but the Competitors are at liberty in the preparation of their designs to make any modifications they may think fit, while carrying out the general spirit of the requirements and instructions. It may be assumed, however, that compliance with this schedule, while not absolutely binding will be a matter of first importance with the Assessor: and it must be understood that any material departure from it should be justified by compensating advantages to the lay-out as a whole, having regard to the particular purpose of the Township.

20. PARTICULARS OF SITE.

The Promoters hold the freehold title of the portion of Klipspruit No.8 marked on the site plan by the figure A, B, C, D, E, F, G, H, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, in extent approximately 3,500 acres, on which it is proposed to lay out a Model Native Township. At present this area is divided into four sub-divisions, viz.:-

- (a) The portion adjoining the main Potchefstroom Road, including the dam, and the portions immediately to the south-west of Nancefield Station, known as the leases of Messrs. Geddes and Van Graan, but excluding the portion occupied by the Sewage Disposal Works.
- (b) On the south by the portion known as "Spencer's Lease", lettered A, B, J, K, P, Q, R, S, T, U, which he holds in lease during his lifetime,

after/...

after which the land will be available for the proposed township development.

- (c) On the north, by the Nynpacht reserve, and lettered C, D, E, F, G, H. Negotiations are proceeding with the view of having this portion released for township development.
- (d) And, the central portion lettered B, C, H, J; this area is available for immediate development.

Competitors shall, in designing their lay-out, disregard the lines of sub-divisions, and consider the lay-out as one complete block, only keeping in mind that the first development will be carried out on the central sub-division (d).

Competitors are advised to visit the site and become acquainted with the general nature of the ground to be laid out.

21. POPULATION AND SIZE OF PLOTS.

Competitors are required to design a residential township to accommodate a total population of 80,000 natives, and having stands of a minimum size of 50 Cape feet frontage by 75 Cape feet deep, of which a six feet strip at the back of each stand will be preserved as a drainage servitude; in the meantime this six feet strip must be shown as part of a sanitary land 12 feet wide.

22. ROADS.

Competitors are to carefully consider the main approaches to the Township, linking up

with the Main Reef Road on the north, and the Main Road from Johannesburg to Potchefstroom on the south.

The position of drifts over streams on the north and south are shown on the locality plan, the one on the north being outside the bounds of the proposed township site.

As a general guide to Competitors it is suggested that main thoroughfares be sixty feet wide and subsidiary street forty feet wide, with main arterial roads of a greater width at the discretion of the Competitor. Though traffic from the Main Reef Road to the Potchefstroom Road is to be discouraged.

23. RAILWAY STATIONS.

The railway line from Johannesburg via Langlaagte to Vereeniging passes centrally through the property from north to south, with Nancefield Station on the south.

A site for the proposed new railway station, which will serve the new township, is indicated on the plan supplied to Competitors.

24. AGRICULTURAL PLOTS.

The low lying and damp land in the vicinity of Nancefield Station is to be sub-divided

25. PARK AREAS AND TREE PLANTING.

Competitors are to consider the advisability of reserving certain areas to be utilised as future parks and for tree planting.

26. ALLOCATION OF SITES.

It is the intention of the Promoters to reserve an area adjacent to the dam as residential sites for the European Superintendent and Staff, who will control the Native Township, say 10 sites of half acre each.

Competitors are to make provision for and to select sites for the following:-

- (a) Administrative Offices, on a site size one acre.
- (b) Public Hall, on a site size one acre.
- (c) Cottage Hospital, Dispensary and Clinic, on a site size one acre.
- (d) Market, Market Building and Communal Store, on a site size three acres at least.
- (e) Central Police Stations and Barracks, on a site size one acre.
- (f) Three sub-Police Stations, on sites size 50 ft. by 75 ft. each.
- (g) Central Post Office, on a site size 50 ft. by 75 ft.
- (h) Three sub-Post Offices, on sites size 50 ft. by 75 ft. each.
- (i) Fire Station, on a site size 100 ft. by 75 ft.
- (j) Two high-level service Reservoirs, on sites size quarter acre each.
- (k) Shopping centres, with a total number of 150 trading stands, on sites size 50 ft. by 75 ft. each.
- (l) Ten sites to be used for educational purposes, on sites size two acres each.
- (m) Twenty sites to be used for religious purposes, on sites size one-half acre each.
- (n) Open spaces at convenient spots in proportion to the number of houses.
- (o) Recreation ground, approximately area of 20 acres.
- (p) Native Cemetery, approximate area of 10 acres.

27. GENERAL INFORMATION.

The land is vested in the Johannesburg City Council, and ownership will not pass to natives. Houses will be built on most of the stands by the City Council, and let to natives on monthly tenancy.

All tenants come under the Location Regulations which give the City Council power to control the population in regard to:-

- (1) Health - the cleanliness of buildings, grounds, etc.
- (2) The erection of buildings, fences, out-houses, etc.
- (3) The collection of rents.
- (4) The right of entry or residence in the Location.
- (5) Trading, i.e., trading at fixed places and hawking.
- (6) The water supply, sanitation, roads and lighting are supplied and controlled or maintained by the Council.

(a) WATER: Water for domestic purposes is usually catered for by the provision of street stand pipes, one for every 8 to 10 houses - (this is for economy).

(b) RUBBISH REMOVAL: Fixed concrete rubbish bins are usually provided by the City Council in the sanitary lanes and are cleared by the Department. One bin to about 10 to 12 houses - these bins are 6 ft. by 6 ft. by 3 $\frac{1}{2}$ ft. high, and are set back flush with the fencing line.

POLICE: The Township will be policed for the preservation of peace and prevention of crime by the South African Police.

KLIPSPRUIT: Attention is drawn to the fact that after a heavy storm, a very considerable amount of flood water flows down the Klipspruit.

VISIT/...

trial 10 SITS: The promoters will, if the Corporation desire, or, make a visit to the site, in order that the boundaries of the site may be pointed out.

APPENDIX D.

HOUSING LEGISLATION IN SOUTH AFRICA.

The first definite step towards a housing policy in the Union, was taken in 1920 when the Housing Act was passed. This Act embodied the following principles and made some provision for their execution :-

- (a) That the right body to deal with local housing conditions was the local municipal authority.
- (b) That the work of these local authorities should be supervised by a Natural or Provincial Authority, in this case the Minister of Public Health and the Administrator of the Province. (In this connection a central Housing Board was established).
- (c) The land and money should be made available to build additional accommodation to relieve overcrowding;
- (d) That the local authority itself may either build with this money or lend it to others for the construction of approved dwellings or schemes.

In July 1930, the following provisions for Economic and Sub-Economic Loan Schemes were made. (49)

(49 Ref. : L. Silberman: Housing Legislation and Finances:
S.A. Architectural Record, June 1943.

Economic Schemes.

"A local authority with the consent of the Administrator and on recommendation of the Central Housing Board is empowered to borrow money at 3½% interest and either carry out a scheme of housing itself or advance money to private persons not already owning houses to build homes for themselves. Houses built by the Local Authorities are not allowed to profiteer and the amount charged for rent and for hire purchase must not include a higher charge for interest than that which the local authority itself has to pay.

If a local authority or a Utility Company advances money to a private person to build, it can only advance up to 80% of the estimated cost of the house and land. The period of the loan may not exceed twenty years. The maximum amount that may be loaned to any one person has been varied from time to time according to cost of building and local authority."

Sub-Economic Housing.

"By sub-economic housing is meant the provision of houses for letting purposes at rentals which are insufficient to defray the full cost of interest and redemption of the loans as well as the cost of maintenance of the houses.

The need has been met by the Government lending money to the local authority at 2½% interest so that it loses annually for the period of the loan roughly (at 1940 rates of interest) £30. on every one thousand pounds (£1,000) lent. The granting of such loans is accomplished by a condition that the local authority

should/...

should itself, in fixing rentals, suffer a loss equivalent to half of the government's annual loss. In computing a sub-economic rent, a local authority is permitted, in addition to the interest and redemption charges, to include the following items as a charge against the scheme :-

- (a) Repairs and depreciation at $2\frac{1}{2}\%$;
- (b) Fire Insurance;
- (c) Rates;
- (d) Loss of rentals ($1/12$ th of accruals);
- (e) Cost of collection on basis of $2\frac{1}{2}$ on rentals due.
- (f) Such other items as may be considered and reasonable.

In addition to the actual building costs, each house has to bear a proportion of the cost of development of the scheme as a whole such as roads, stormwater drainage, electric light, water mains, etc., totalling up to minimum pure rent for a house costing £200. of 13/- and for a house costing £250. of 16/3."

Section 7(3) of the 1920 Act reads as follows :-

"Before approving of any scheme the Administrator may require the local authority in whose area it is intended that such a scheme shall be carried out, to make provisions for the poorest section of the population including the Coloured and Native people."

Sub-economic loans, however, were not made available for Native Schemes, and this remained a sterile clause till the 1934 amendment when "in special cases" the Central Housing Board could finance sub-economic location schemes. By 1944 out of the

267 existing locations 41 had made use of the sub-economic loans.

It was the Natives Urban Areas Act (No.21 of 1923) which first defined a decisive scheme with regard to the housing of Natives. This Act holds the local Authorities responsible for the provision of suitable housing for Natives within their area, unless they are :-

- (a) Members of a group of 25 working for one employer;
- (b) Employed on temporary work,

in which case the local authority can compel the employer to house them adequately. Provision is made by this Act for the erection of these houses by the municipality concerned, or by the Natives themselves. It further goes on to define the measures for the control of these locations.

The Public Health Act 1919 (No.36) and the Slums Act (1934) (No.54) state the minimum requirements of any houses, which are :-

- (1) In all rooms used for sleeping a minimum of 400 cubic feet of free air space and 40 square feet of floor space to each person of ten years old or more, and a minimum of 200 cubic feet of free air space and 20 square feet of floor space to each person of less than ten years of age;
- (2) Segregation in sleeping accommodation of persons of opposite sex over 12 not living together as husband and wife;
- (3) A minimum of 1 latrine per 12 persons;
- (4) Adequate space for cooking;
- (5) Area of natural lighting to be at least 1/12th of floor area;
- (6) Ventilation achieved by two or more openings placed so as to secure cross ventilation.

In/...

In August 1944 the National Housing and Planning Commission was established by the Government, to supersede the Central Housing Board. This consists of a Chairman and ten members representing various public interests, responsible to the Minister of Health. It maintains a full administrative staff under a Director of Housing, its main duties being to define housing policy and administer Government Loans. It has since done some very valuable work both in the sphere of research and in initiating housing schemes.

APPENDIX E.

The problem of Native housing raises its head again and again in all kinds of discussions, in all kinds of commissions. Yet few reliable statistics concerning housing are available and much research remains to be done. Many authorities may feel that at this stage "the housing needs are so much greater than the means to cope with them, that the urgency of properly estimating those needs is not felt. There is no danger of building too many houses. Obviously we must, for a number of years to come, build at full capacity. Therefore the capacity to build rather than our requirements, is receiving first attention"(1) BUT "I submit that before considering the ways and means of reaching the target the target itself should be defined with much greater precision than is being done at present."

There are, however, a number of most valuable studies which have been made in the past few years, which, if they are any indication of future trends, prove most promising.

In 1939 a Collective Thesis on Native Housing by five architectural students (2) was submitted to the University of the Witwatersrand and has subsequently been published. This project attacks the problem of housing a population of 20,000 Bantu inhabitants on a site similar to that of Orlando Township, by introducing the concept of housing

(1) Block - Estimating Housing Needs.

(2) Native Housing - A Collective Thesis by P.H.Connell, C.Irvine-Smith, K.Jones, R.Kantorowich, F.J.Wepener.

Africans in large blocks of flats. These are built on spacious sites so that they enclose large open spaces used as gardens and recreational centres. There is, further, a space designed for individual garden plots, which would solve the individual garden problem. The communal facilities are generous and comprehensively grouped and the whole scheme is planned so as to adequately fulfil Catherine Baver's minimum requirements.⁽³⁾ Whether flats or houses are the most satisfactory buildings for housing Africans I shall not here dispute. The fact remains that this work, divided as it is into five parts -

- (1) Sociological approach.
- (2) Psychological approach.
- (3) Planning.
- (4) Construction.
- (5) Finance.

each executed with a deep comprehension of the problem they are tackling indicates the approach needed for the successful planning of Native Urban Housing Schemes in this country.

In 1944 another Collective Thesis "Urban Native Housing" was presented by three students ⁽⁴⁾ to the Witwatersrand University. Having given a concise survey of housing schemes existing for Natives in South Africa, this work goes on to propose a new layout for Pimville.

The scheme shows realisation of the necessity for a sound grasp of sociological data before an adequate plan can be designed by town planners and architects, and in

(3) See Appendix B.

(4) Urban Native Housing - K.S. Donaldson, V.F. Fouche and S. Lutrin.

their opening chapter one finds the following remark:

"Although there must exist a vast quantity of material relative to Native housing, both conjectural and experimental, it is widely dispersed and quite uncorrelated. Sociologists and others have often criticised the architect for failing to take account of social, economic, etc., factors in his planning. If they were rather to concentrate their energies on providing data to the architect - on such matters as, what tribal customs are still followed in urban locations, what proportion, if any, of those to be housed will be boarders: who in the family does the gardening; exactly what activities take place in the home and when; what is the rate of growth of urban Native population; how long does it take new arrivals from rural areas to become thoroughly urbanised, and what proportion of them settle permanently in the towns; what are the Native's reactions to the various forms of Native housing to be found in the Union is the Native yet sufficiently developed to benefit by the inclusion of baths and internal W.C's etc., - the planner's problems would be considerably simplified. Perhaps the most difficult problem now facing any Native housing research is to gauge the degree of improvement in economic, educational and social standards of the Native, likely in say a ten year span. This has a direct bearing on the life factor in housing, the length of Government loan periods and consequently the design and construction of houses. It is in the absence of such data that we were often faced with assumptions we are unable to establish." (5)

The eight pointers round which their planning revolves are that houses planned for a Native community should be planned to provide for :-

- (1) Integrated family life.
- (2) The possibility of home ownership.
- (3) The probable changes in the mode of life of the Natives.
- (4) Health.
- (5) Beauty
- (6) Convenience
- (7) Decency
- (8) Reducing Building Costs.

In 1947 the Council for Scientific and Industrial Research decided to establish a number of sub-committees to investigate the various aspects of housing in South Africa. These sub-committees consisted of persons from all spheres of life, connected in one way or another with the aspect to be investigated. The six reports authorising this most valuable research work have appeared in the beginning of 1949 and will prove invaluable to all concerned with housing.

P E R S P E C T I V E.....

BANTU URBANISATION AND EMERGENT PROBLEMS RELATED TO HOUSING.

"What is the meaning of this City. Do you huddle close together because you love one another?" (T.S.Eliot:)

1. Urbanisation.

Although the attitude has for a long time been that of considering the urban Native as a temporary migrant labourer - "It should be a recognised principle of government that Natives - man, women and children - should only be permitted within municipal areas in so far and for as long as their presence is demanded by the wants of the white population and should depart therefrom when the cease to minister to the needs of the white man." (1)

1. This is obviously no longer the case. Just as the English country folks flocked to the towns for employment during Britain's Industrial Revolution, finding shelter wherever possible, so is the Native to-day invading the urban areas; and if there are no houses to shelter him - friends and relatives must do so; when their houses are filled to overflowing capacity, then shanty towns must go up and indeed do go up. The men may still come first and alone, but wives and children very soon follow them. Moreover, there are men and women who have been born and bred in the city and who know no other life but the squalid, cramped life of the city slumyard, or the monotony of a municipal township.

(1) Transvaal Local Government Commission - 1922.

"What we are witnessing to-day in the case of the Non-European in South Africa, is something surpassing the speed and intensity the English Industrial Revolution of more than a hundred years ago. In fact one could say the speed of Banto urbanisation is paralleled in history only by the drift to the towns and the industrialisation of Soviet Russia, particularly in its Asiatic territories During a period of rapid urbanisation, a very large proportion of the national income must be invested in housing, if a country wants to avoid complete disorganisation of the family structure." Yet at no stage has this been the case in South Africa. (2)

With the first developments of industry around the rapidly expanding mining camps came the first Native families to the town. These mine labourers were being housed "en masse" in compounds: the newcomers were left to provide their own houses and did so by building or renting insanitary structures of wood, clay and iron in the backyards of European or Indian premises. (3)

In 1902 an outbreak of plague brought to the knowledge of the local authorities, the existence of these numerous unlicensed Natives. Pinville, thirteen miles south-east of Johannesburg, was then established as a temporary measure to decongest the city areas - a temporary measure which has been in existence for forty-seven years, and which is likely to remain so for many more years.

Meanwhile areas such as Sophiatown and Alexandra, where freehold stands could be bought were being established. Here houses presented spacious house frontages, supported by numerous dingy rooms in the backyards, hired out at fantastic rentals. The backyards of Doornfontein, Prospect Township and the Malay quarters in Vrededorp became notorious dens of vice, over-crowding and misery.

Then the Urban Areas Act of 1923 placed the onus for providing housing for Natives within

(2) Dr. Sonnabend - Sociological Approval to Housing and Townplanning,
S.A. Architectural Record - February 1947.

(3) For a study of a typical "yard" of this type see E. Hollman. "Rooiyard".

their areas, on the local authorities. It made provision for the establishment of Native villages or locations in areas separated from the European habitations. (4)

. These first locations, though far from satisfactory, helped to relieve the situation a little and showed improvements in construction.

First relatively small locations such as Eastern Native Township and Western Native Township were established; then came the need for bigger locations and Orlando Township, planned to house 80,000 people was established. It was to be a model Township. Yet some saw further into the future: In "Umtalana Panyit" 30.1.32 we find the following, concerning Orlando: (5)

"The new township we understand, will have its public institutions, such as a post office, hospital, fire-station, town hall and police station. There will be public parks and play-grounds, trading centres and two railway stations. Surely the Bantu people will be grateful for all this. But the City Council must know that the Bantu are not a stagnant people. They are a part of progressive humanity. Sooner or later there will be developments among them, in every walk of life which require accommodation at the new township."

It is perhaps, most of all, this lack of foresight in the planning of Native urban communities that has caused so many problems to emerge and manifest themselves in so many alarming forms.

"The migration of Natives to the urban areas clearly shows that the ancient life of the people cannot be maintained. The great change that has come over the Bantu has created new wants which cannot be satisfied by the methods of their fathers. The shortage of land has disorganised the economic system of the people in the rural areas. Large herds of cattle can no longer be kept because of the lack of pasture. The result has been a steady migration of the people to the towns. Now these people have become

(4) See Appendix D. "Native Townships" pages:

(5) Mr. Selope Thane.

urbanised and their wants have accordingly increased. They depend for their living upon what they earn from Europeans - many have thus become part of the economic system of the country, a system created by European civilisation. To cope with the difficulties of this system they will have to assimilate Western civilisation and adapt themselves to the civilised conditions. Otherwise they will share the fate of the Bushmen and the Red Indians." (6)

Out of the chaotic cauldron of the transitional period emerge some promising indications that the adaptation is fast being made. Too often this process is retarded instead of promoted by the European "trustees", who fail to understand both its manifestations and its necessity.

2. EMERGENT PROBLEMS - RELATED TO HOUSING

(a) FAMILY INSTABILITY.

"Nowhere are the disintegrating effects of urban conditions and environment more apparent than in the change in family relationships of which marriage is the focal point. The permanence of marriage is tending to be undermined; the exclusiveness of the sexual bond between the partners is disappearing; the Native conception and the function of lobola are undergoing a startling metamorphosis; kinship obligations and parental control are greatly diminished. The restraints of tribal discipline have as yet emerged from out of the chaotic welter of transition. The old sanctions have lost their force and the sanctions which order European life are not yet applicable to Native life." (7)

As has been pointed out it was first generally accepted that the Native was a migrant labourer, whose home was on the farms or in the reserves and who came to the town for only a few months a year in order to earn sufficient for his poll tax and tribal levies. He would then return home and live his natural care-free existence on his meagre plot of eroded land. In the towns he was to be housed in compounds or hostels and left to rejoice in this bachelor's existence.

(6) Ibid.

(7) E. Hellman - "Rooyard". A sociological survey of an urban Native shanty town.

The consequent influence on family life of this soon became apparent. The wives at home were left to run the entire villages - and as they waited for their menfolk the thatch was rotting and the cattle were dying and the huts were crumbling away. And still the men did not return. Children grew up without their fathers' control and no longer shared the same respect for their elders - they too wished to go and earn some money in the cities and to see for themselves the many wonderful things one found there.

In the towns there are now some women selling liquor and offering comfort to lonely men Why not? One never seemed to save sufficient money to pay one's fare home and when would one see one's family again?

Wives, not hearing anything more from their husbands would start despairing, and leaving their children with their grandparents, They too would come to the towns and look for their husbands but the City is then such a big place;.....

The slums of Johannesburg became crowded with Native men who had brought up their wives and families or who had found new wives and founded new families. Here in the backyards of Doornfontein and Vrededorp, in one badly constructed, unhealthy room the whole family lived; here in comparative safety one could brow, laugh, chat and hide; here mine labourers and other single men could come over week-ends; here children were conceived, born and brought up; here Bantu family life began crumbling away.

Then the locations were built - but one had to have one's wife here in order to obtain a house Native customary unions are not registered in the Transvaal, so it is easy to say "we are married". "Yes, we will get a house, and then you can go if you wish"

Lobola cattle - the cattle of the ancestors - were replaced by dirty coins and filthy notes. But money soon disappears in the urban areas and so it is with marriage too. The transaction, so deeply rooted in the religion of the Bantu, stripped of its ritual significance loses its integrative force, and remains as an empty commercial transaction - a spoke in the wheels of progress; the polygamist finds that in the urban area another wife instead of being an economic asset, is now an economic liability.

The well-defined kinship duties and obligations, which, under tribal conditions ensure and maintain the solidarity of the tribe, become in the urban areas, a burden. A man is obliged, although his house may be small, to take in his relatives who find no accommodation and out of his earnings to support them and pay their debts. And then arising out of this gross overcrowding taboos, which lay at the very core of Bantu society, have to be foregone - parents are obliged to sleep in one room with their growing children, married children with adolescent brothers and sisters, the mother-in-law in the same house as her son-in-law, (8) two married couples, strangers to each other, in the one room. Ruth Levin in her survey of "Marriage in Large Native Locations" concludes that "the widespread moral degeneration can be partly attributed to the overcrowding in the houses."

Parents complain bitterly of their loss of control over their children and of the sexual precocity of these children. Rates of illegitimacy are high amongst the young girls in the urban areas and parents find themselves helpless to prevent it.

Indeed our country has not avoided "the complete disorganisation of the family structure".

(b) POVERTY

"It is indisputable that bad housing conditions are a very important factor in the

(8) In tribal society a man comes as little into contact with his mother-in-law as possible "there is not only respect but avoidance". (Jung, The Life of a Zulu Tribe)

problem of poverty, though their relation thereto is of a different nature from that of such factors as unemployment." (9)

Since shelter is one of man's primary needs in life, a person will go to great lengths to ensure its provision for himself and his family. The Bantu urbanised man works five days, often six days a week - and long hours. Often his wife also works, leaving her young children to the mercy of the street; the elder children have to leave school earlier than they would wish, for they too must earn and help the family along. And yet there is not sufficient money, after the rent is paid and the transport tickets bought to live comfortably But one hears that there is good money in brewing, and if one is careful then perhaps the police will not catch one. It is worth trying

Others take in sub-tenants - it is against the location regulations and one is already crowded - but it may help a little

Others are establishing shops in their houses. They will be fined when the superintendent finds out - but one can make a little on the black market. Sometimes one is successful and business is well worth the fine ...

Even to put up a carpenter's shop or tinker's shop in the backyard or to take in shoe repairs is illegal, for one has to have a permit and permits are few and

(9) The New Survey of London Life and Labour Vol. III.

difficult to obtain. For the townships are planned to serve only those Natives who come to the cities to provide labour for European enterprise - few make provision for the ever increasing numbers of Native craftsmen, tradesmen and professionals.

Then there are the many unemployed, for jobs, if easily found, are even more easily lost; there is much retrenching; when one has achieved skill in a certain sphere, and deserves higher wages, it is cheaper for the industrialist to "sack" and obtain new persons at low wages. Then there are many passes to be carried in the towns. Sometimes before one has reached the registration or pass offices to have them seen to one is arrested; so it is often safer to hide in the locations. There one finds other unemployed men with whom one can chat, drink, gamble or smoke. For somehow, these comforts are still available.

This combined with other factors such as lack of educational and recreational facilities in the township, leads from one problem to another. It is indisputable that the dire poverty of the Bantu remains one of the prime causal factors of most of our other problems in South Africa.

(c) HEALTH.

A high degree of correlation has always been found between housing and health - or bad housing and ill-health. It is no wonder that the insanitary, congested conditions of the locations have become dangerous breeding grounds for all kinds of diseases.

"The Bantu were a robust nation before the white man infiltrated V.D. which the Zulus call "the white man's disease" was unknown. Chest troubles were very rare. They affected the healthy semi-nudity. Their dietary achieved a rude balance. Their lives were spent in the open-air and sunshine." (10)

And now what is happening ? The mortality rate of children in the local remains high. Dr. Rauch, Medical Officer of Health of Germiston, found that "dust, dirt and flies in summer time are largely responsible for over 43% of the total infant deaths under one year in the location. Similarly the unhygienic state of the dwellings renders the occupants specially liable to lung infections, especially in winter time. The child population seems to suffer most in this respect, and nearly 27% of the deaths amongst infants under one year are due to these infections." (11)

Whooping cough, measles, chicken-pox and other children's diseases are common and seldom receive adequate attention. T.B. is rife and under such overcrowded conditions spreads rapidly. V.D. has also become prevalent and its disastrous consequences are seen in the young and old.

Apart from definite diseases, the general condition of the urban Bantu remains low. Out of the meagre pittance he knows that first rent has to be paid, or he will lose his house - and he knows that new house allocations are six or seven years behind times; then transport costs to take him to and from work are completely indispensable. The houses are cold in winter, and fuel has to be bought for here one is not allowed to go into the forests and gather faggots of wood. Then alas ! there is little money left for food and clothes. And should any untoward expense befall the family, it is food that is the first item to be economised upon. Consequently the urban Bantu has little energy and has become susceptible to disease. Many of the children suffer from malnutrition.

(11) Quoted in R. Phillips: The Bantu.

"It must be noted that Dr. Rauch was talking of conditions in Germiston location which is particularly bad, having been condemned as a slum since 1935. It is however a fair indication of what is happening, for a great many of the townships and locations are not much better than this location.

Water and sanitation are mostly inadequate. Few locations make provision for baths or showers in the houses or for water-borne sewerage.

Health facilities in most locations take the form of only a small clinic with a few beds - the hospitals are situated in the towns or away from the locations. And if curative measures are scanty, preventive and promotive health measures are completely absent. But if the white doctor does not come to the location then the black one with his magic does. Amid so much insecurity, so much ill health, so much instability, there is opportunity for good business.

(d) CRIME

"Men and women are not only themselves; they are also the region in which they were born, the city apartment or the farm in which they learnt to walk, the games they played as children the oldwives' tales they overheard, the food they ate, the schools they attended, the sports they followed, the poets they read, and the God they believed in." (12)

Many children are born in the location; many children come from the rural areas to the location; many children live and are educated to take their place in society in the location. And it is this environment that will, to a large extent, determine what kind of citizens they will be.

Yet local authorities in planning housing for their Native communities, forget the lesson that Patrick Geddes taught planners - That people living in a house require not shelter but all the amenities that make a house an inseparable part of the

(12) Somerset Maugham - The Razor's Edge (1944)

Quoted by E.J. Osborne - "Greenhill Cities."

neighbourhood - food, work, recreation, education. They may leave vacant stands for the erection of schools and churches, but rely entirely on the religious bodies to establish them; they may leave vacant stands for parks and sports fields, but leave these to develop themselves - bare patches of red earth or scrubby grass, littered with rubbish.

Over-taxed religious bodies establish the schools which the Government will then subsidise. But Native children have to supply their own books and equipment, whilst their European counterparts in the city's wealthy suburbs, receive them free of charge. But even then, when all the churches have done their best to establish schools, when all the classrooms in these schools are packed to capacity with surplus children, (often exceeding the Education Department's maximum number), when the teachers willingly battle to cope with these swelled classes, when schools are running after noon classes as well, even then there are still numerous children who are turned away from the schools and numerous others, who have not tried to attend; numerous children whose sole education will be the street with its code of drink, stabbing, gambling and dagga-smoking. Nor are they the only ones to be taught it, for the child returning from school there is little else to do than join these companions in the street.

If only, in planning the townships, the authorities had established and developed large parks where children could come and play; social centres, well-built and surrounded by trees, gardens and sports fields, where they could come and learn to co-operate with one another, to create, to find expression for their manifold yearnings - to play to discuss, to develop; schools where they could be taught that education does not lie in ability to repeat parrot-wise some magic formula, but in the development of one's powers of discrimination in the acquisition of knowledge - they would soon find that drinking and stabbing is dangerous, gambling and smoking futile.

But /

But the bulk of our townships display only small crowded ill-equipped schools, dingy unattractive, uninviting hutments for recreational centres, and the bare undeveloped veld, or the filthy street for a football ground.

And the adults too are crying out for education. They realise that it is only through education that they will be able to make a suitable adjustment to western society in which they inevitably are incorporated. Yet they have little time for it and few facilities and the prices there are high. At night it is difficult to go out; there are few places to go to; not many streets have lights and there are many "Ntsosi gangs" (13) lurking around. On Saturday afternoons and Sundays, which are the only days when the family may be together, one does not like each to go his own way to find recreation. Yet under tribal conditions there were plenty of opportunities for recreation and play, there were dances; there were feasts; there were songs and stories and visits; for the man there was hunting and fishing; for the children there were games, there was clay modelling, there were all the tasks of the grown-ups to imitate in their miniature villages.

There is a great need in the urban locations for community centres; such as would serve the needs of the entire family of either sex and all ages. The pioneer health centre in Peckham, John Gray Community Centre in Fordsburg and the Family Welfare Centre in Alexandra have shown how these centres can be a co-ordinated stabilising force in the family, whilst making provision for the health, recreational

(13) "Ntsotsi" is the word denoting the notorious young thieves, murderers and terrorists, so commonly found in the locations. They usually go around in well-organised gangs who have developed a terminology of their own and whose main weapon is a large knife.

and educational needs of each member of the family and recognising the family as the unit in society.

If only in planning the urban communities, more attention were paid to providing an environment which would promote the healthy development of the individual personality within the group then South Africa would not be terrorised by its much published "crime waves;" then European men and women and children could walk in the streets at night unafraid; then Native location dwellers would be free from constant fear. For if the increase in criminals and juvenile delinquents, affects the European population, it affects the Native population in no lesser degree.

"Nor can the problem of what sort of community, what sort of personality, we seek to produce be glibly set aside with a reference to the undoubted existence of individual differences. Different races, different nations, different temperaments and occupations, all have many minor differences in their needs; who would doubt it? But there is also in every age a common ideal of personality which represents the goal of living towards which everyone is more or less set." (14)

"Without plans on a substantial scale, the urbanisation of the Bantu will lead not only to the breaking up of their tribal units, but also to their complete social and moral disintegration. The phenomena which we are observing at present, such as the increase in child delinquency and general crime, are only indications of much more violent convulsions which must accompany planless breaking up of Bantu society." (15)

(14) Lewis Mumford - City Development.

(15) Dr. Sonnabend - Sociological Approach to Housing and Town Planning. S.A. Arch. Record. Feb. 1947.

GENERAL DISCUSSION OF EXPENDITURE.

The survey only considered expenditure on these three items directly relating to housing. The following general impressions of expenditure in Orlando may, however, be of general interest and therefore include this as an appendix.

The urban Native has become very conscious of the fact that it is only with money that one can get on in western civilisation and thus every possible means of obtaining it is utilised. But, on the other hand, the value of money and proper handling of it is as yet a thing not understood by most and one cannot but notice the casualness with which it is spent.

The concept of profit is understood by few - it is the lump sum that passes through the hands that makes an impression.

The following are two cases in point :-

- (i) A woman in one of the households fetched a bundle of washing from the eastern suburbs of Johannesburg. After paying trainfare, busfare, soap, etc., she made a profit of 1/8d. per month, which was probably spent on fuel, expenditure on which was difficult to estimate. She had not realised this though she complained that "money is very little".
- (ii) A man in the sample earned a living by buying wood, exchanging it for malt from the brewers and then selling the malt to farmers who use it as cattle food. He could be very rich he said, were he to put all his money in the bank, for it would amount to £50. per month. Indeed £50. passed through his hands each month, but having obtained a detailed account of his expenses incurred on the wood he bought, the food for the horses, the shodding of the horses etc., I found that he would be making a profit of £7.3.0. per month. From this he spent £2.10.0. per month on rent, 10/- on fuel (coal and paraffin) which left him £4.3.0. for food and clothing and other expenses for his family of thirteen persons (there were no other earners in the household since his two eldest sons helped him with the business).

Though/...

Though food is an item which is often saved upon and many households live on a diet of dry porridge, weak tea and occasionally some meat or vegetables, incidental expenditure on items such as sweets, an orange, roasted mealies, fish crumbs, etc., bought from the street vendors, is common. These are eaten on the spot and do not constitute part of a meal.

For many, a considerable source of expenditure is gambling. A very high proportion of the women seem to go in for the Chinese Fah-Fee game. This has a wide appeal as it is based on dreams - a phenomenon that has always been significant to the Bantu. The Fah-Fee runner is told the subject of one's dreams e.g., "a white man", "water", "a baby", etc., and he tells them the number that should be drawn (apparently according to a uniform index of subject-number).

The stakes are low, which is an added attraction. According to one informant:-

One penny wins 1/6. Two pennies 3/6 and four pennies 7/6.

According to another informant :-

Three pennies win 5/6, sixpence wins 11/- and a shilling wins £1.5.0.

Most persons participating claim that they do not spend more than 6d. or 1/- per day on it, but since this is a daily affair, the sum mounts up. Betting on dogs and horses is found amongst both men and women. This is a factor exploited by some witchdoctors who offer advice as to lucky numbers.

Occasions on which the urbanised Natives spend indiscriminately are weddings and funerals. For both these feasts are given, attended by all friends and

relatives/...

relatives. The following is a case in point:-

A family of 11 persons. No income at the time of investigation, as the head had lost his job and a brother-in-law in the house was ill. Both wives had small infants of 2 and 3 months respectively. The head's wife had twins. The head left for the O.F.S. to borrow some money from some relatives. On his return one of the babies died. Preparations for the funeral were made - ground for burial, a coffin, etc., were bought, the material for the baby's dress and coffin alone costing over £1.0.0. Bread and meat for the guests had to be provided - the result was that most of the money borrowed was spent on the dead - not the living. Fortunately on such occasions guests bring gifts of 1/-, 2/6, etc., with them.

Drink is no doubt an important item of expenditure for the men.

Medical fees form an important item in most households for a considerable number of persons prefer to go to a private practitioner than to attend the clinics or general hospital. Then, too, witchdoctors are frequently consulted.

Amongst persons who have low earnings and who are obliged to live from week to week the hire purchase system quickly takes root. It is extensively found in the township and operates especially in furniture and clothing, with disastrous effects both for individuals and families.

There is no doubt that the average urban African is obliged to spend much more than he is earning. Such a position can only bring about social, family and individual disorganisation. Much research into this aspect of Bantu life is necessary as few accurate figures are available.

APPENDICES TO INTRODUCTION

APPENDIX 1. Survey Schedules. Schedules consist of 7 coloured cards 8" x 5".

GREEN.

ADDRESS:		<u>C E N S U S</u>				Ref:		
Index.	Name.	sex.	Born.	Relationship.	Tribes.	Language.	Religion.	Dea

YELLOW

66

<u>H O U S I N G</u>						R O O M S.				
Nos. in Household.	Nos. of sub-tenants.	Nos in Family.	Rent.	S.T.	Date Entry.	1	2	3	4	5
						Uses to which room is put				
						Occupied by family or shared.				
						Index Nos of individual sleeping in room				
<u>I M P R O V E M E N T S</u>										
Type.	Expenditure.					TAPS: TYPE OF HOUSE:				
						REMARKS:				

APPENDIX 1. (Continued)

WHIT##	H G L U L T ^ U L	Hft		
Index.	Birth»lfices	Jhb. Date and changes#	Address.	Reason for whaa»e

.oiuaub						
a a a i t a b D I S T O a l»						
Index#	file#	files#	Date	live	Children.	Deft
					Doa. index#	expired#
			1			
			I			
					F	
			i		g	
			;		i	
			!			
			!			
			1.			

APPENDIX 1. (continued)

BLUE

<u>I N C O M E.</u>						Ref:	<u>I N C O M E</u>	
Index	Occupation.	Place of Work.	Started.	Left.	Work Days.	Work.	Sub-Tenants	Other

RED

<u>E X P E N D I T U R E.</u>						Ref:	
Index.	Rent.	Fuel	Transport	Income.		Other	

PINK

<u>E D U C A T I O N</u>						Ref:		
Index.	Sex.	Age	Name of School.	1948.	1949	Remarks.	Year Left	Final Std. Subsequent Training.

APPENDIX 11.

On three occasions letters were sent to persons not as yet contacted asking them to visit the investigators at their office.

Household 1.

An old three-roomed house, Orlando West 1. Had been warned by the Welfare Branch investigators to expect antagonism. The family had been granted a child (on appro.) by the Child Welfare Society which had subsequently been removed as the head of the house had no permanent employment. It would, therefore, be advisable to make clear from the beginning that the survey had nothing to do with Welfare activities.

The first visit proved fruitless. Only a senile old woman, incapable of giving information, at home.

The second visit, the wife was in the yard. She refused to allow the investigators in her house, angrily demanding the child back. When assured that the investigators had nothing to do with the child, she still refused to co-operate, swearing that she would have no European on her premises or anyone connected with Europeans. Investigators were forced to retire having gained no ground.

Subsequent visits were fruitless as the wife was now doing domestic work in town, and her husband was never at home.

A neighbour known to one of the investigators provided information which corresponded to that obtained from the Welfare Branch. The head had no permanent employment but did odd jobs in the township, calling himself a "Contractor".

It was finally decided to send him a letter via a Municipal police boy, asking him to call at the investigators' office. This he did, and proved friendly and co-operative, only too pleased to air at length his grievances concerning the houses. All information corresponded with that obtained from other sources and the file was satisfactorily closed.

Household 2.

A new four-roomed house containing no furniture at all with the exception of one bench and a "Mbaola".

On the first visit, investigators found a woman who proved very friendly. She willingly gave much information through chatting on the first two visits. (Card information had not been asked for). When investigators visited for the third time, she seemed most embarrassed, and begged the investigator never to visit again. Her husband had forbidden her to receive them or talk to them, and refused to see them himself. He would beat her if she disobeyed him.

Many months later it was decided to ask the husband by letter to call at the office. This he did, and having been explained the survey said he understood that it was good work - not harmful as he first thought. He willingly gave information, which corresponded to other information obtained, and sent his wife to the office the following day, with the ages of the children which he could not remember. This provided an opportunity to further check the information which was found to be incorrect.

Household 3. /....

Household 3.

A shelter repeatedly found locked. Neighbours told investigators that the owner was often away as he was a trader in horses and cattle, which he bought in Natal and brought back to Johannesburg to sell. Investigators left a note with the neighbours asking him to call at their office when next he was at home. This he did, and proved co-operative. He was thereafter visited at his shelter.

.....

APPENDIX III

EXAMPLE OF FEAR DUE TO TENANT'S ILLEGAL
ACTIVITIES.

The Household was visited seventeen times before the file could be closed. The head from the beginning, feigned willingness to give information but blamed his wife for preventing him to do so. He would, however, get round her - "She is like a baby!" His wife played her role admirably declaring that she forbade her husband to meddle in such matters.

The husband repeatedly made appointments to see investigators, both at his house and at their office, but not once did he keep them. There was always, however, an excuse forthcoming - he had been ill; a niece had had a dangerous delivery in his house and the baby seemed very unhealthy and likely to die; he had an urgent call (he was a witchdoctor but, he assured investigators a "civilised" doctor). On several occasions both head and spouse were seen to hide at the approach of the investigators. The wife on a few occasions admitted to having hidden when teased about it. Despite this the investigators had obtained a considerable amount of the information through conversations. Especially were they keen to discuss their house on which they had spent a considerable amount of money making improvements. They expressed the wish to build an adjoining room as the two rooms were small for their purposes. They consistently told the investigators that they had obtained a house just after building had been completed. Card information at the office gave a different name but the same date of entry. There was no file for this household so it was difficult to know whether or not they were the registered tenants, - names are so often a mere matter of convenience among Africans.

One/...

One day when the head was particularly full of excuses and promises the investigator acted on this scant evidence and told the astounded tenant that she knew the house was not his. He immediately showed signs of fear and asked what she would do about it. He was assured that it was no concern of the investigation which merely sought to gain information to be produced in impersonal figures. Thereafter he willingly gave information and even his wife co-operated. Three further visits were made to check the information. The house had been obtained for them by a nephew who had been a builder on the scheme. Builders had been given precedence on the houses and the nephew had immediately handed the house over to them.

APPENDIX V.

NOTE ON BRIBERY AND FRAUD.

Bribery has been so prevalent in dealings with Africans that many of its unfortunate victims no longer view it in a derogatory sense, but merely as part of the complex procedure of living. Thus investigators were on occasion offered money if they would assist persons in obtaining a house or a shopkeeper's licence. It is a recognised fact amongst tenants, that if you have the money you can get a house. There is bribery to obtain houses, there is bribery to obtain trading licences, there is bribery to avoid arrest.

The following is particularly a case in point :-

An old woman lived in a two-roomed house with her son. She was a widow. They had taken in sub-tenants. The sub-tenants had gone to one of the Advisory Board members for assistance in obtaining a house. After many months of waiting in vain, they became restless, so a method had to be devised to get them a house. The old lady, who is completely illiterate, and who does not speak English, was taken to the Superintendent's Office by the Advisory Board member. There he told the Superintendent that being old she preferred a shelter where she would only have to pay 5/- rent. The sub-tenants were then recommended as the next registered occupiers of the house. The old woman was bewildered and could not follow the procedure. The next thing she knew, however, was that she and her belongings were being transported to a shelter where she spends her time crying and bemoaning her fate. The sub-tenants are established in the house.

Many similar cases of bribery were quoted to the investigators - some having proved effective, others ineffective. Three of the households within the sample admitted having obtained a house after money had been paid over.

Cne/...

APPENDIX VI.

ATTITUDES OF PERSONS TO INVESTIGATORS.

The presence of the investigators aroused a considerable amount of curiosity, especially in the shelters. The following were typical remarks :-

- (1) What are you selling ?
- (2) (To the African investigator) Have you run away from work, and has your missis come to fetch you ?
- (3) Doctor, my feet is sore - please help me, doctor. (Often, Nurse).
- (4) Are you dry-cleaner agents ?
- (5) What men cannot achieve, how can you hope to achieve ?
(This remark came from a heavy brewer who suspected the investigators of being detectives)
- (6) What, let you into my house ? How do I know you are not Communists ?

A reflection of culture contacts within our society.

APPENDIX VII

A REFUSAL

Out of 232 households investigated, there was one complete refusal.

The office file indicated that illegal trading was suspected in the house, though there was no proof of it.

Investigators noticed that on their approach a boy who was digging in the garden made a sign to someone in the back yard. On their arrival the house was locked and no one answered the knocking. On three occasions the investigators appeared suddenly and gained access to the house. On all three occasions large drums of liquor were standing in the kitchen, though no signs of illegal trading were seen. The old woman, who, with the exception of the boy who always disappeared, was the only person found in the house, remained consistently antagonistic and even vicious. However, eventually, listening to the reasons for the survey, she said she understood it but "only God knows the number of people on the earth - and how many live in each house". Investigators were obliged to agree that that was certainly true for that house.

It was not possible to contact the husband, as a neighbour told the investigators that he had been away for some months and it was unknown when he would return. She could give no further information concerning the household. This household has been recorded as a complete refusal.

One has only to examine the history of the shantytown to realise to what extent unscrupulous persons are exploiting the ignorant and desperate house-seeker.

FRAUD.

There is an alarming amount of fraud carried out at the expense of the African. There are cases of so-called "estate agents" selling properties which already belong to other persons, to ignorant persons. As no deed of sale was asked for by the prospective buyer, he is not protected by the law, for ignorance of the law is no excuse.

An incident which happened^{ne} in Orlando was quoted by several families. Two persons, posing as health inspectors, visited a number of houses. They condemned them as being dirty and ill-kept, and threatened to report the tenants. After some time they would condescend not to report them if they were paid a few pounds. In this manner, they collected a pretty handful and disappeared.

Another case in point is that of an old couple within the sample, who had spent a considerable sum of money on building a stone wall around their yard. One day some men appeared saying that they were Municipal employees, sent to remove the stones and put up a fence for them. The stones were removed but the fence has not appeared. Someone else no doubt is paying a good sum for the erection of a stone wall.

PART II: THE INHABITANTS OF ORLANDO.

APPENDIX II. (2) (3).

TRIBAL STRUCTURE BY AGE AND SEX FOR PERSONS DOMICILED IN ORLANDO.

AGE	S.SONGO			N.SONGO			TSHANA			ZULU			XIOSA			SWAZI			V. & SH.			FOREIGN COL.			UNKNOWN			TOTAL				
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T		
Below 1:	4	5	9	3	1	4	1	-	1	8	10	18	2	4	6	-	2	2	-	1	1	-	1	1	-	2	2	-	18	26	44	
1 - 4	16	25	41	2	-	2	6	3	9	14	19	33	12	8	20	1	1	2	3	4	7	4	3	7	-	1	1	1	59	64	123	
5 - 9	21	18	39	5	1	6	9	5	14	20	18	38	9	9	18	3	2	5	4	7	11	5	1	6	-	1	1	1	76	63	139	
10-14	10	19	29	3	5	8	5	5	10	25	25	50	8	9	17	2	5	7	1	4	5	1	1	2	-	1	1	-	55	74	129	
15-19	14	8	22	3	2	5	5	2	7	15	21	36	5	10	15	-	2	2	3	2	5	2	1	3	-	1	1	-	47	49	96	
20-24	20	12	32	4	1	5	3	1	4	25	18	43	4	4	8	6	2	8	6	1	7	1	1	2	1	-	1	-	70	40	110	
25-29	18	14	32	1	2	3	6	1	7	16	16	32	5	8	13	2	3	5	4	1	5	-	-	3	-	3	-	-	55	45	100	
30-34	9	13	22	1	1	2	4	5	9	20	21	41	9	7	16	3	5	8	2	2	4	2	1	3	-	-	-	-	50	56	106	
35-39	18	17	35	1	2	3	6	3	9	10	17	27	6	7	13	4	2	6	5	2	7	3	-	3	-	-	-	-	63	50	103	
40-44	14	12	26	1	1	2	1	5	6	20	13	33	9	6	15	8	1	9	3	2	5	4	-	4	-	1	1	-	60	41	101	
45-49	16	8	24	3	-	3	2	4	6	11	5	16	5	4	9	3	1	4	5	-	5	1	-	1	2	-	2	-	48	22	70	
50-54	6	6	12	2	-	2	2	2	4	7	4	11	4	1	5	-	1	1	2	-	2	1	-	1	1	-	1	1	-	24	15	39
55-59	-	4	4	-	-	-	1	-	1	-	2	2	2	4	6	1	1	2	1	-	1	1	-	1	-	-	-	-	6	11	17	
60+	5	9	14	3	2	5	2	3	5	6	16	21	3	4	7	2	3	5	-	-	-	2	-	2	-	-	-	-	23	36	59	
UNKNOWN	-	-	-	-	-	1	-	1	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2	
TOTAL:	171	170	341	32	18	50	54	39	83	198	204	402	83	85	160	35	31	66	39	26	65	27	9	36	6	8	14	2	646	501	1237	

NOTE: V. & SH. = VENDA AND SHANGANI.

APPENDIX II. (1) (5) (6) (7) (8) (22).

(a) (1) Total number of persons domiciled in Orlando = 1237.

(b) The Age and Sex composition of persons domiciled in Orlando.

AGE	MALE	FEMALE	TOTAL.
Below 1	18	26	44
1	17	15	32
2	13	14	27
3	16	22	38
4	13	13	26
5	14	12	26
6	16	14	30
7	9	9	18
8	19	13	32
9	18	15	33
10	16	14	30
11	6	16	22
12	15	16	31
13	9	13	22
14	9	15	24
15-19	47	49	96
20-24	70	40	110
25-29	55	45	100
30-34	50	55	105
35-39	53	50	103
40-44	60	41	101
45-49	48	22	70
50-54	24	15	39
55-59	6	11	17
60+	23	36	59
UNKNOWN	2	0	2
TOTAL	646	591	1237.

APPENDIX II. (4).

LANGUAGE OF PERSONS DOMICILED IN ORLANDO ACCORDING TO TRIBE.

LANGUAGE	S.SOTHO	N.SOTHO	TSMANA	ZULU	XHOSA	SHAZI	VENDA & SHANGAAN	FOREIGNERS	COLOURED	UNKNOWN	TOTAL
SOTHO	306	46	87	20	8	1	2	6	8	1	485
NGUNI	15	-	4	368	139	54	7	19	1	-	607
VENDA	-	-	-	-	-	-	2	-	-	-	2
SHANGAAN	-	-	-	-	-	1	34	-	-	-	35
FOREIGN	-	-	-	-	-	-	-	6	-	-	6
AFRIKAANS	1	-	-	2	-	-	-	-	3	1	7
MIXED BANTU	12	4	2	12	12	8	20	5	1	-	82
BANTU AND ENGLISH	-	-	-	-	-	2	-	2	1	-	3
BANTU AND AFRIKAANS	-	-	-	-	9	-	-	-	-	-	9
UNKNOWN	1	-	-	-	-	-	-	-	-	-	1
TOTAL:	341	50	93	402	168	66	65	36	14	2	1237

APPENDIX II. (9) (10).

MARITAL STATUS BY SEX AND AGE OF PERSONS DOMICILED IN ORLANDO.

AGE	SINGLE			MARRIED			WIDOWED DESERTED DIVORCED.			UNKNOWN			TOTAL
	M	F	T	M	F	T	M	F	T	M	F	T	
15+Under	218	237	455	-	-	-	-	-	-	-	-	-	455
16	9	9	18	-	3	3	-	-	-	-	-	-	21
17	7	2	9	-	1	1	-	-	-	-	-	-	10
18	13	10	23	1	4	5	-	-	-	-	-	-	28
19	7	8	15	-	2	2	-	-	-	-	-	-	17
20	19	5	24	1	6	7	-	-	-	-	-	-	31
21	12	-	12	-	2	2	-	-	-	-	-	-	14
22	14	3	17	1	5	6	-	-	-	-	-	-	23
23	13	1	14	1	6	7	-	1	1	-	-	-	22
24	5	2	7	4	9	13	-	-	-	-	-	-	20
25	8	2	10	3	8	11	-	-	-	-	-	-	21
26	5	3	8	1	8	9	1	-	1	-	-	-	18
27	6	2	8	3	3	6	-	-	-	-	-	-	14
28	10	-	10	5	9	14	1	3	4	-	-	-	28
29	3	-	3	9	7	16	-	-	-	-	-	-	19
30 - 34	14	4	18	35	44	79	1	7	8	-	-	-	105
35-39	4	3	7	38	37	75	11	10	21	-	-	-	103
40 - 44	2	1	3	47	28	75	11	12	23	-	-	-	101
45 - 49	1	1	2	35	13	48	12	8	20	-	-	-	70
50 - 54	1	-	1	18	3	21	5	12	17	-	-	-	39
55 - 59	-	4	4	2	1	3	4	6	10	-	-	-	17
60 +	-	-	-	15	-	15	2	6	8	6	30	36	59
UNKNOWN	-	-	-	1	-	1	1	-	1	-	-	-	2
TOTAL	371	297	668	220	199	419	49	65	114	6	30	36	1237.

APPENDIX II. (11), (12), (13).

GEOGRAPHICAL DISTRIBUTION OF BIRTHPLACE BY AGE AND SEX.

BIRTHPLACE	15 - 19			20 - 24			25 - 29			30 - 34			35 - 39			40 - 44			45 - 49			50 - 59			60+			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
JOHANNESBURG	-	-	-	4	3	7	2	3	5	1	1	2	1	2	3	-	3	3	-	-	-	-	-	-	-	-	-	8	12	20
TRANSVAAL																														
OTHER THAN JHB.	4	2	6	7	8	15	7	7	14	7	7	14	13	10	23	9	7	16	8	6	14	8	5	13	4	4	8	67	56	123
NATAL	4	1	5	5	6	11	10	8	18	15	13	28	10	7	17	13	8	21	9	4	13	5	5	11	4	3	7	76	55	131
O.F.S.	3	2	5	8	3	11	8	9	17	4	12	16	9	15	24	12	8	20	16	6	22	6	5	11	2	5	7	68	65	133
CAPE PROVINCE	-	1	1	4	3	7	5	5	10	6	6	12	4	8	12	9	3	12	7	5	12	6	6	12	4	4	8	45	41	86
BASUTOLAND																														
SWAZILAND	-	3	3	1	6	7	5	3	8	6	8	14	10	3	13	11	9	20	6	1	7	2	3	5	4	3	7	45	39	84
BECHUANALAND																														
FOREIGN FROM OUTSIDE UNION	1	-	1	1	1	2	1	-	1	-	2	2	3	1	4	4	-	4	2	-	2	2	-	2	2	-	2	16	4	20
TOTAL:	12	9	21	30	30	60	38	35	73	39	49	88	50	46	96	58	38	96	48	22	70	30	24	54	20	19	39	325	272	597
INAPPLICABLE & UNKNOWN	35	40	75	40	10	50	17	10	27	11	6	17	2	4	6	2	3	5	-	-	-	-	2	2	3	17	20	321	319	640
GRAND TOTAL:	47	49	96	70	40	110	55	45	100	50	55	105	52	50	102	60	41	101	48	22	70	30	26	56	23	36	59	646	591	1237

UNKNOWN + UNDER 15: M F T.
 211 227 438 (This includes two males whose ages are unknown).

- (1) Information for this table was obtained for all Family Heads and their spouses and all independent sub-tenants. All dependants including those dependants by Native Custom were not included.
- (2) Owing to complications in coding (lack of sphere) the "Unknown and Inapplicables" were coded together. Thus 20 persons who should have been included in the calculations, and whose birthplace is unknown, were not included.

APPENDIX II. (14).

TABLE SHOWING LENGTH OF PERIOD IN JOHANNESBURG BY AGE AND SEX.

No. of Years in		15 - 19			20-24			25-29			30 - 34			35 - 39			40 - 44			45 - 49			50 - 54			55 - 59			60 +			TOTAL		
Johannesburg.		M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T			
Below	1	1	2	3	3	4	7	22	2	4	4	2	6	-	1	1	2	-	2	-	-	1	-	1	-	-	1	1	2	14	12	26		
	1 - 2	3	2	5	5	6	11	1	3	4	-	2	2	2	4	1	1	2	-	1	1	-	-	-	-	-	1	1	12	18	30			
	2 - 3	2	2	4	2	3	5	3	3	6	-	-	-	1	1	1	1	2	1	-	1	-	-	-	-	-	-	-	9	10	19			
	3 - 4	1	-	1	2	-	2	4	2	6	1	-	1	-	-	-	1	1	2	-	-	-	1	1	-	1	1	-	1	1	9	6	15	
	4 - 5	-	-	-	4	1	5	-	1	1	1	-	1	-	1	1	1	2	3	-	-	-	-	-	-	-	-	-	-	6	5	11		
	5 - 10	3	2	5	4	5	9	14	13	27	12	18	30	3	6	9	3	9	12	-	2	2	2	1	3	-	2	2	2	1	3	43	59	102
	10 - 15	-	1	1	3	6	9	6	7	13	16	15	31	19	14	33	16	14	32	13	3	16	3	2	5	-	-	-	2	4	6	80	66	146
	15 - 20	1	-	1	2	1	3	2	1	3	1	6	7	13	10	23	12	1	13	5	4	9	3	3	6	-	-	-	3	3	6	42	29	71
	20 - 25	-	-	-	4	3	7	1	-	1	1	3	4	8	8	16	13	4	17	16	5	21	3	4	7	2	2	4	1	2	3	49	31	80
	25 - 30	-	-	-	-	-	-	2	4	6	1	-	1	-	3	3	5	1	6	5	2	7	4	-	4	-	2	2	1	-	1	18	12	30
	30 - 35	-	-	-	-	-	-	-	-	-	1	1	2	1	-	1	-	-	-	4	2	6	4	4	8	2	2	4	3	3	6	15	12	27
	35 - 40	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	-	-	-	2	2	3	-	3	-	-	-	1	2	3	5	6	11	
	40 - 45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	1	1	2	-	-	-	1	-	1	3	2	5	5	6	11
	45 - 50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3	2	1	3	
UNKNOWN		1	-	1	4	-	4	4	1	5	6	2	8	4	1	5	3	1	4	3	1	4	1	-	1	1	-	1	1	1	2	28	7	35
TOTAL:		12	9	21	33	29	62	39	37	76	44	50	94	51	49	100	60	38	98	48	23	71	24	15	39	6	9	15	20	22	42	337	280	617

NOTE: For this table information was obtained from all family heads and their spouses and all independent sub-tenants. All dependents including those by Native Custom were not included.

APPENDIX II. (15).

TABLE SHOWING LENGTH OF PERIOD IN JOHANNESBURG OF ALL TENANT HEADS.

NO. OF YEARS IN JOHANNESBURG	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	UNKNOWN	TOTAL
3 - 4	-	-	-	-	-	1	-	-	1	-	-	2
5 - 10	1	1	4	6	2	2	-	3	1	1	-	21
10 - 15	-	-	4	9	14	17	10	2	-	3	1	60
15 - 20	-	-	1	1	12	11	6	3	-	4	1	39
20 - 25	-	-	1	1	9	13	16	4	3	2	-	49
25 - 30	-	-	1	1	1	3	6	4	2	1	-	19
30 - 35	-	-	-	1	1	-	3	8	3	3	-	19
35 - 40	-	-	-	-	3	-	-	3	-	2	-	7
40 - 45	-	-	-	-	-	-	1	-	1	3	-	5
45 - 50	-	-	-	-	-	-	-	-	-	3	-	3
UNKNOWN	-	1	-	-	-	1	3	-	-	1	-	6
TOTAL	1	2	11	19	41	48	45	27	11	23	2	230

APPENDIX II. (16).

TOTAL NUMBER OF PERSONS CODED WHO CAME TO PRESENT DWELLING EACH

YEAR ACCORDING TO SEX.

<u>YEAR OF ENTRY.</u>	<u>M</u>	<u>F</u>	<u>T</u>
1932	4	4	8
1933	2	2	4
1934	3	2	5
1935	4	3	7
1936	4	3	7
1937	23	31	54
1938	19	20	39
1939	5	11	16
1940	7	5	12
1941	16	14	30
1942	17	8	25
1943	4	2	6
1944	5	4	9
1945	78	62	140
1946	35	29	64
1947	46	40	86
1948	47	39	86
UNKNOWN	18	1	19
TOTAL	337	280	617

APPENDIX II. (17).

Table showing domicile of persons in the Shelters prior to moving into present house.

AREA	MALE	FEMALE	TOTAL
Shanty-Town & previously Orlando	48	35	83
Shanty-Town & previously other areas Johannesburg	43	26	69
Shanty-Town & previously areas outside Johannesburg	17	24	41
Unknown	9	1	10
TOTAL	117	86	203

APPENDIX II. (18).

Table showing domicile of persons in Orlando East: prior to moving into present House.

AREA	MALE	FEMALE	TOTAL
Other areas Johannesburg	104	84	188
Areas outside Johannesburg	37	47	84
Shelters	12	9	21
Unknown	7	3	10
TOTAL	160	143	303

APPENDIX II. (19).

Table showing domicile of persons in ORLANDO WEST prior to moving into present house.

AREA	MALE	FEMALE	TOTAL
Orlando East/Orlando West	17	17	34
Other areas Johannesburg	13	12	25
Areas outside Johannesburg	20	12	32
Shelters	7	9	16
Unknown	2	1	3
TOTAL	59	51	110

APPENDIX II. (X).

Number of Head's Children domiciled away according to size of household
(including Domestic Servants.)

SIZE OF HOUSE- HOLD.	TOTAL NUMBER OF HEAD'S CHILDREN	NO. OF HEAD'S CHILDREN AWAY (aged 20 and Under).
1 Person	2	2
2	49	44
3	67	48
4	44	23
5	53	14
6	56	13
7	73	12
8	76	6
9	74	6
10	32	-
11	17	3
12	10	3
13	9	-
TOTAL	562	174

A P P E N D I X II (20)

TENANTS' CHILDREN DOMICILED AWAY FROM HOME ACCORDING TO AGE AND SEX.

Age	D O M I C I L E														T O T A L
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	
	T	T	T	T	T	T	T	T	T	T	T	T	T	T	
Below 1	-	-	-	-	-	2	-	-	1	4	-	-	-	-	7
1	-	-	-	-	-	-	-	-	1	4	-	-	-	-	5
2	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1
3	-	-	-	-	3	5	-	-	-	4	-	-	-	-	12
4	-	-	1	-	2	1	-	-	-	2	-	-	-	-	6
5	-	-	1	-	-	1	-	-	-	2	-	-	-	-	4
6	-	2	-	-	-	5	-	-	2	2	-	-	-	-	11
7	-	1	-	-	6	4	-	-	-	1	-	-	-	-	12
8	-	-	-	-	3	1	-	-	1	2	-	-	-	-	7
9	-	-	-	-	1	3	-	-	1	3	-	-	1	1	10
10	-	3	-	-	1	3	-	-	-	-	1	-	-	-	8
11	-	-	-	-	3	2	-	1	-	1	-	-	-	-	7
12	-	1	1	-	2	4	-	-	-	3	1	-	-	1	13
13	-	1	-	1	2	1	-	1	1	-	-	-	-	-	7
14	-	3	-	-	2	3	-	-	-	1	-	-	-	-	9
15	-	3	-	-	2	3	-	-	-	1	-	-	-	-	9
16	-	1	-	1	-	6	-	1	-	-	-	-	-	-	10
17	-	1	-	-	1	2	1	-	-	1	1	-	-	-	7
18	3	1	-	-	-	1	-	-	-	1	-	-	-	-	6
19	3	-	-	-	4	1	-	-	-	1	-	1	-	-	10
20	4	-	-	1	-	2	1	-	-	1	-	-	-	-	9
TOTAL:	10	16	3	3	35	50	2	4	7	37	3	1	1	2	174

NOTE: - Alphabets from (a) to (n) represent the following :-

- (a) At work but home at times (b) Boarding School (c) In Johannesburg with Maternal Relative
- (d) In Johannesburg with Paternal Relative (e) Outside Johannesburg with Maternal Relative
- (f) Outside Johannesburg with Paternal Relative (g) In Johannesburg with Friends
- (h) Outside Johannesburg with Friends (i) On plot of land (j) Home Reserve
- (k) Outside Johannesburg with Relatives (l) Reformatory
- (m) Hospital (n) With relatives or Stepmother.

APPENDIX II (25). (24)

OCCUPATION OF PERSONS DOMICILED IN OZLANDC

OCCUPATION	UNDER 20 yrs.			20 - 29			30 - 39			40 - 49			50 - 59			60 +			T O T A L		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Labourer ...	7	-	7	57	-	57	45	-	45	50	-	50	12	1	13	8	-	8	179	1	180
Factory ...	5	-	5	21	3	24	10	5	15	16	4	20	2	-	2	1	-	1	55	12	67
Domestic Service	-	7	7	-	8	8	-	17	17	1	5	6	2	3	5	-	1	1	3	41	44
Professional & Clerical ...	1	-	1	4	1	5	6	1	7	2	-	2	1	-	1	2	1	3	16	3	19
Nightwatchman & Police ...	-	-	-	-	-	-	2	-	2	9	-	9	-	-	-	3	-	3	14	-	14
Driver & Transport	2	-	2	4	-	4	9	-	9	6	-	6	3	-	3	-	-	-	24	-	24
Washerwoman ...	-	3	3	-	13	13	1	29	30	-	29	29	-	8	8	-	1	1	1	83	84
Brewer ...	-	-	-	-	2	2	1	14	15	-	12	12	-	4	4	-	2	2	1	34	35
Traders:- (Hawker, Legal & Illegal)	2	-	2	4	1	5	8	9	17	8	6	14	2	1	3	-	2	2	26	17	43
Craftsmen ...	1	1	2	1	-	1	5	2	7	6	2	8	2	-	2	1	-	1	16	5	21
Housewives ...	-	6	6	-	40	40	-	27	27	-	11	11	-	2	2	-	1	1	-	87	87
Not employed ...	8	7	15	23	18	41	13	7	20	8	2	10	2	9	11	9	29	38	65	72	135
Others ...	4	-	4	9	-	9	6	1	7	4	1	5	4	-	4	2	-	2	29	2	31
Unknown ...	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
TOTAL:-	31	24	55	123	86	209	106	112	218	110	72	182	30	28	58	28	35	63	428	357	785

NOTE: 1 person temporarily unemployed has been included in "not employed" but has not been included for calculations under section on Unemployment.

APPENDIX II (25)

OCCUPATION ACCORDING TO EDUCATIONAL QUALIFICATIONS AND SEX FOR PEOPLE DOMICILED
IN ORLANDO.

Occupations	Nil			Primary			VII & Matr.			Others			Unknown			T O T A L		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Labourers ...	54	1	55	99	-	99	9	-	9	4	-	4	13	-	13	179	1	180
Factory Workers ...	15	2	17	27	7	34	3	-	3	3	3	6	7	-	7	55	12	67
Domestic Service ...	1	8	9	1	27	28	-	1	1	-	1	1	1	4	5	3	41	44
Professional & Clerical	-	-	-	5	-	5	4	1	5	6	2	8	1	-	1	16	3	19
Police & Nightwatchman	3	-	3	8	-	8	2	-	2	1	-	1	-	-	-	14	-	14
Driver & Transport	4	-	4	16	-	16	1	-	1	2	-	2	1	-	1	24	-	24
Washerwomen ...	-	25	25	1	52	53	-	1	1	-	4	4	-	1	1	1	83	84
Brewers ...	-	18	18	1	15	16	-	-	-	-	1	1	-	-	-	1	34	35
Traders (Legal-illegal, Vendors, Hawkers, etc.)	8	9	17	16	7	23	1	-	1	-	1	1	1	-	1	26	17	43
Craftsmen ...	5	2	7	8	2	10	-	-	-	3	1	4	-	-	-	16	5	21
Housewives ...	-	20	20	-	58	58	-	1	1	-	6	6	-	2	2	-	87	87
Not Employed ...	18	36	54	34	35	69	5	-	5	4	-	4	2	1	3	63	72	135
Others ...	9	1	10	19	1	20	1	-	1	-	-	-	-	-	-	29	2	31
Unknown ...	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	1	-	1
T O T A L ...	117	122	239	236	204	440	26	4	30	23	19	42	26	8	34	428	357	785

APPENDIX II (26). (28)

THE INCOME OF THE POPULATION ACCORDING TO AGE.

INCOME	10 - 19	20 - 29	30 - 39	40 - 49	50 - 59	60 +	TOTAL
Below 1	-	1	2	3	5	3	14
1	-	5	12	6	6	27	56
2-4	16	23	36	26	7	4	112
5-9	13	51	44	48	17	6	179
10-14	2	37	41	51	8	8	147
15-19	-	5	10	11	1	-	27
20-24	-	2	9	5	1	1	18
25-29	-	-	2	1	2	-	5
30-39	-	2	4	1	-	1	8
40 +	-	-	1	-	-	-	1
Unknown	-	2	3	1	2	-	8
100 +	-	11	14	11	42	22	100
TOTAL	31	129	164	154	49	50	577

APPENDIX II (29).

THE INCOME OF POPULATION ACCORDING TO EDUCATIONAL QUALIFICATIONS FOR PEOPLE DOMICINED IN ORLANDO.

INCOME	NIL			PRIMARY			SECONDARY			* OTHERS			UNKNOWN			TOTAL		
	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T
Below 1	4	27	31	10	22	32	-	-	-	3	1	4	2	1	3	19	51	70
2 - 4	6	32	38	12	53	65	-	1	1	-	4	4	-	4	4	18	94	112
5 - 9	47	11	58	72	28	100	3	1	4	3	4	7	9	1	10	134	45	179
10 - 14	34	4	38	77	2	79	10	-	10	10	1	11	9	-	9	140	7	147
15 - 19	2	-	2	17	1	18	3	-	3	2	1	3	1	-	1	25	2	27
20 - 100+	8	1	9	12	2	14	4	-	4	4	1	5	2	-	2	30	4	34
UNKNOWN	2	-	2	1	1	2	1	-	1	-	-	-	3	-	3	7	1	8
TOTAL :	113	75	178	201	109	310	21	2	23	22	12	34	26	6	32	373	204	577

* OTHERS includes
 1. Teaching & Nursing
 2. Industrial & Vocational.

APPENDIX II (30). (31)

INCOME OF HOUSEHOLD ACCORDING TO TYPE OF HOUSEHOLD FOR THOSE DOMICILED IN ORLANDO.

Type of Household	INCOME GROUPS							TOTAL
	0 - 9	10-19	20-29	30-39	40-49	50+	Unknown	
Tenant Natural Family ...	15	48	20	4	-	-	-	87
Extended Family + Dependents	6	28	21	7	3	1	2	68
T.N.F. + Relative Family	4	5	9	4	4	2	-	28
Extended Family + Relative Family	-	6	11	2	-	-	1	20
T.N.F. & Sub-Tenant/F.(Unrel.)	-	3	7	2	-	1	2	15
Extended Family & Sub-Tenant	-	-	1	2	4	-	1	8
T.N.F. & R.F. & Sub-Tenant	-	1	-	-	-	-	-	1
Extended Family & R.F. & Sub-Tenant.	-	1	-	-	1	-	1	3
TOTAL:	25	92	69	21	12	4	7	230

APPENDIX II (32).

INCOME OF HOUSEHOLD ACCORDING TO SIZE OF HOUSEHOLD FOR THOSE DOMICILED IN ORLANDO.

<u>INCOME.</u>	<u>SIZE OF HOUSEHOLD.</u>													<u>TOTAL.</u>
	1	2	3	4	5	6	7	8	9	10	11	12	13	
0	-	1									1			2
2	1						1							2
3	1	-	2	1	-	1	-							5
4	-	1	-	-	1	-	1	1						4
5			1											1
7	-	1	-	-	1								1	3
8	-	1	2							1				4
9	-	-	2	-	-	2								4
10	1	3	2	1	-	2	1	1						11
11	-	1	3	2	-	-	1	2						9
12	-	-	2	-	2	1	1	1	-	1				8
13	-	2	2	-	-	-	2							6
14	-	4	1	-	2	1	1	2	2					13
15-19	-	6	8	8	9	2	4	3	2	2	-	1	-	45
20-24	-	7	8	3	3	6	6	4	7	1				45
25-29	-	1	4	5	4	3	3	3	-	-	-	1		24
30-34	-	2	-	3	2	-	2	3	-	1	1			14
35-39	-	-	-	3	2	-	1	1						7
40-44	-	-	-	2	1	-	2	1	2	-	-	1		9
45-49	-	-	-	-	-	1	-	1	1					3
60-64	-	-	-	-	1	-	-	-	-	-	1			2
75-79						1								1
110-114										1				1
UNKNOWN					1	3	1	-	2					7
TOTAL	3	30	37	28	29	23	27	23	17	6	3	3	1	230

APPENDIX II (33).

NUMBER OF WOMEN IN EMPLOYMENT FOR EACH OCCUPATIONAL GROUP
DOMICILED IN ORLANDO.

OCCUPATION	WORKING AT HOME	WORKING AWAY	TOTAL
Labourer	-	1	1
Factory Worker	-	11	11
Domestic Service	1	36	37
Washerwomen	29	38	67
Washerwomen & Brewer	3	3	6
Washerwomen & Street Vendor	1	2	3
Washerwomen & Dressmaker	1	-	1
Domestic Servant & Washing	-	3	3
Washerwomen & Witchdoctor	-	1	1
Domestic Servant & Brewer	-	1	1
Legal Shopkeeper	1	-	1
Illegal Shopkeeper	1	-	1
Street & Home Vendor	7	2	9
Brewer	24	-	24
Dressmaker	1	2	3
Assistant	1	-	1
Housewife	87	-	87
Brewer & Street Vendor	2	-	2
Teacher	2	-	2
Nurse	-	1	1
Factory & Dressmaker at spare time	-	1	1
Brewer of Magewu	1	-	1
Seller of Second Hand Clothing	1	-	1
Washerwomen looking after Grandchildren	1	-	1
Unemployed	23	-	23
Unemployable	43	-	43
Idle	6	-	6
TOTAL	236	102	338

APPENDIX II (34).

NUMBER OF WOMEN IN EMPLOYMENT ACCORDING TO MARITAL STATUS FOR
THOSE DOMICILED IN ORLANDO.

EMPLOYMENT	MARRIED	SINGLE	DESERTED, WIDOWED & DIVORCED	TOTAL
Employment	106	25	48	179
Housewife	79	-	8	87
Unemployed	10	12	1	23
Unemployable	9	24	10	43
Idle	1	3	2	6
TOTAL	205	64	69	338

APPENDIX II (35).

EMPLOYMENT OF WOMEN ACCORDING TO THEIR LENGTH OF RESIDENCE IN JOHANNESBURG.

PERIOD IN JOHANNESBURG	WORKING AT HOME	WORKING AWAY	HOUSEWIFE	UNEM- PLOYED.	UNEMPLOY- ABLE	IDLE	TOTAL
Below 1 yr.	-	1	8	2	1	1	13
1 year	1	4	10	-	1	-	16
2 years	-	5	4	-	-	-	9
3 years	2	1	1	-	1	1	6
4 years	2	1	2	-	-	-	5
5-9 years	54	68	52	5	18	1	198
10-14 years	10	5	-	6	-	-	25
15-19 years	8	18	5	16	16	3	66
TOTAL	77	102	87	23	43	6	338

APPENDIX II (36).

EMPLOYMENT OF WOMEN DOMICILED ACCORDING TO THEIR RELATIONSHIP
TO THE HEAD.

RELATIONSHIP.	WORKING AT HOME	WORKING AWAY	HOUSEWIFE	UNEM- PLOYED	UNEM- PLOYABLE	IDLE	TOTAL
Head	9	15	3	-	6	-	33
Spouse	53	55	53	4	13	-	178
Child	6	5	4	10	1	2	28
Adopted	-	9	-	2	-	-	11
Sibs	3	5	5	2	1	1	17
Sibs-in-law	-	2	1	-	-	-	3
Niece	2	6	4	4	-	-	16
Cousin	1	-	3	-	-	-	4
Sub-Tenant	1	2	8	1	-	-	12
Daughter-in-Law	-	2	4	-	-	1	7
Grand-Child	-	-	1	-	-	-	1
Parent/Step-parent	1	1	1	-	19	-	22
Grand-mother	-	-	-	-	3	-	3
Friend Dep.	-	-	-	-	-	1	1
TOTAL	77	102	87	23	43	6	338

APPENDIX II (37) (38)

UNEMPLOYMENT ACCORDING TO AGE AND SEX

Ages	Unemployed.			Unemployable.			Idle.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Below 15	-	-	-	-	-	-	2	-	2	2	-	2
16	-	2	2	-	-	-	2	-	2	2	2	4
17	1	-	1	-	-	-	-	-	-	1	-	1
18	2	1	3	-	-	-	-	1	1	2	2	4
19	1	2	3	-	-	-	-	1	1	1	3	4
20	4	4	8	-	-	-	-	-	-	4	4	8
21	4	-	4	-	-	-	-	-	-	4	-	4
22	1	2	3	-	-	-	-	-	-	1	2	3
23	2	-	2	-	-	-	-	-	-	2	1	3
24	4	-	4	-	1	1	-	1	1	4	2	6
25 - 29	4	7	11	2	2	4	1	1	2	7	10	17
30 - 34	5	2	7	4	1	7	-	-	-	9	3	12
35 - 39	3	2	5	1	1	2	-	1	1	4	4	8
40 - 44	3	1	4	3	1	4	-	-	-	6	2	8
45 - 49	1	-	1	1	-	1	-	-	-	2	-	2
50 - 54	-	-	-	1	4	5	-	1	1	1	5	6
60 +	2	-	2	7	29	36	-	-	-	9	29	38
TOTAL:	37	23	60	20	43	63	5	6	11	62	72	134

APPENDIX II (39)

NUMBERS OF UNEMPLOYED ACCORDING TO SEX AND MARITAL STATUS.

	Married			Single			Deserted Widowed Divorced			Total		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
53 Unemployed	12	10	22	22	12	34	3	1	4	37	23	60
54 Unemployable	10	9	19	7	24	31	3	10	13	20	43	63
Idle	-	1	1	4	3	7	1	2	3	5	6	11
TOTAL:	22	20	42	33	39	72	7	13	20	62	72	134

APPENDIX II (40)

NUMBER OF UNEMPLOYED DOMICILED IN ORLANDO ACCORDING TO EDUCATION AND SEX.

Education	Unemployed			Unemployable			Idle.			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
Subs.	2	2	4	1	1	2	1	-	1	4	3	7
I	1	1	2	2	1	3	-	-	-	3	2	5
II	2	1	3	-	3	3	-	2	2	2	6	8
III	4	3	7	1	1	2	1	-	1	6	4	10
IV	5	4	9	-	2	2	2	-	2	7	6	13
V	6	5	11	2	2	4	-	1	1	8	8	16
VI	3	3	6	1	2	3	-	-	-	4	5	9
VII - JC	1	-	1	1	-	1	-	-	-	2	-	2
Post JC Matric	3	-	3	-	-	-	-	-	-	3	-	3
Teachers'												
Training	-	-	-	2	-	2	-	-	-	2	-	2
University	-	-	-	-	-	-	-	-	-	-	-	-
Technical	1	-	1	1	-	1	-	-	-	2	-	2
Unknown	-	1	1	2	-	2	-	-	-	2	1	3
No education	9	2	11	7	31	38	1	3	4	17	36	53
<u>TOTAL:</u>	37	22	59	20	43	63	5	6	11	62	71	133

APPENDIX II (43). (46). (49). (51)
HEAD'S INCOME SPENT ON FUEL, RENT AND TRANSPORT

Income Group	Total Income	Average Income per Household	Fuel	Rent	Transport	Total Expen.	No. of Households
0-4	£43	£1. 2. 0.	£32.19. 6.	£31.19. 2.	£3.15. 5.	£68.12. 1.	37
5-9	£445	£7. 4. 0.	£59. 9. 4.	£48. 3. 2.	£24. 8. 6.	£132. 1. 0.	60
10-14	£995	£11. 6. 0.	£82.12. 4.	£68.10. 0.	£37.19. 2.	£189. 2. 2.	86
15-19	£297	£18. 5. 0.	£7.17. 6.	£15. 3. 0.	£7.15. 7.	£30.16. 1.	18
20-24	£338	£21. 1. 0.	£13.16. 0.	£17. 8. 8.	£6.17. 6.	£38. 2. 2.	16
25-29	£135	£27. 0. 0.	£4.15. 6.	£4. 9. 0.	£2.19. 3.	£12. 3. 9.	5
30-34	£125	£31. 3. 0.	£4. 8. 6.	£ 2. 3. 2.	£1.17. 8.	£8. 9. 4.	4
35-39	£36	£36. 0. 0.	18. 0.	5. 0.	Nil	£1. 3. 0.	1
100-104	£100	£100. 0. 0.	17. 6.	£1. 1. 8.	Nil	£1.19. 1.	1
Unknown	Unknown	Unknown	£1.11. 0.	£1. 0. 0.	Unknown+9.5	£2.11. 0.	2
TOTAL	£2,514	-	£219. 5. 1.	£190. 3. 6.	£86. 0. 6.	£483.19. 8.	230

Note: 0-4 Includes 1 Household of unknown expenditure on fuel.

10-14 Includes 1 Household of unknown expenditure on fuel.

APPENDIX II. (44). (45). (48). (50)
HOUSEHOLD INCOME AND EXPENDITURE ON FUEL, RENT AND TRANSPORT.

Income Group	Total Income	Average Income per Household	Fuel	Rent	Transport	No. of Households
0-4	£35	2.7	£11. 4. 6.	£11.15.10	£2.18. 7.	13
5-9	£95	7.9	£11.14. 4.	£9.16. 8.	£5. 4. 4.	12
10-14	£565	12.0	£40. 1.10.	£36. 7. 2.	£31.11. 2.	47
15-19	£752	16.7	£42. 2. 6.	£38.16. 6.	£40. 4. 1.	45
20-24	£968	21.5	£47.13. 3.	£34. 7. 2.	£38.11.11.	45
25-29	£642	26.8	£24. 8. 6.	£22. 4. 0.	£29.17. 8.	24
30-34	£444	31.7	£12.12. 5.	£4.12. 6.	£18.14.10	14
35-39	£258	36.9	£6. 4. 3.	£8. 5. 6.	£11.11. 2.	7
40-44	£380	42.2	£10. 2. 4.	£11. 8. 8.	£13. 6. 2.	9
45-49	£143	47.3	£3.13. 6.	£1.11. 8.	£3.15. 4.	3
60-64	£122	61	£1.14. 0.	£2.15. 0.	£4. 4. 9.	2
75-79	£77	77	12. 0.	£1. 8. 2.	18. 0.	1
110-114	£111	111	17. 6.	£1. 1. 8.	-	1
Unknown	Unknown	Unknown	£6. 1. 6.	£5.11. 0.	Exp. of 1 household Unknown £8.0.3.	7
TOTAL	£4622	-	£219. 2. 5.	£190. 1. 6.	£208.18. 3.	230

APPENDIX II (47)

(k) NO. OF INDIVIDUALS ACCORDING TO EXPENDITURE ON TRANSPORT.

	<u>TOTAL.</u>
In applicable	-
1d. - 4/11	58
5/- - 9/11	316
10/- - 14/11	49
15/- - 19/11	6
£1 - £1.4.11.	9
£1. 5. -. - £1. 9.11.	7
£1.10. 0. +	2
NIL	254
<u>UNKNOWN</u>	<u>1</u>
<u>TOTAL :</u>	<u>702</u>

A P P E N D I X II (52) (53)
MARITAL STABILITY - ALL UNIONS. (ALL CODED - DEAD OR ALIVE)

Date of Union	Inappl.	C.R.	N.C.U.	CVL.	Ilcl.	CRL.	L.&C.	GR.C.&L.	UNKN.	C. & C.	TOTAL
1895	-	-	-	-	-	2	-	-	-	-	2
1900	-	2	-	-	-	-	-	-	-	-	2
1901	-	-	1	-	-	1	-	-	-	-	2
1902	-	2	-	-	-	-	-	-	-	-	2
1903	-	-	1	-	1	-	-	-	-	-	2
1904	3	-	-	-	-	-	-	-	-	-	3
1905						2					2
1906	-	1	2	-	1						4
1907	-	2	2								4
1908	-	-	2							1	3
1909	-	2	2			1					5
1910			2			2					4
1911		2	2			2					6
1912			6			2					8
1913		2									2
1914			1			6					7
1915		2	2	2		4					10
1916						2					2
1917			4								4
1918		4	8			4					16
1919		2	4			2					8
1920		2	6			2					10
1921		4	2		2	2 6					14
1922		2	8			2					12
1923		2	4								6
1924		4	4			2					10
1925		2	6			2	2				12
1926		3	4			11					18
1927			6		2	3					16
1928		4	5		4	3					16
1929		6	18			12	2		2		40
1930		2	6		2	6			2		18
1931		6	9		2	4	2	2			25
1932		4	12	2		8					26
1933		4	13		5	6					28
1934		8	10	2	2	4			2		28
1935		6	12		4	2					24
1936		7	8		4	8	4	2			33
1937		4	4		3	10					21
1938		6	12	2	9	10	2	2	-	1	44
1939		4	10		2	7	2	2			27
1940			8			2	2	2			12
1941		6		2	8	11	2				29
1942		2	5		2	6	4				19
1943			20		1	8					29
1944			4	2	4	8	2				20
1945		2	14		12	10	2			4	44
1946		6	4	2	9	2		2	2		27
1947		4	20		2	8					34
1948		2		2	10						14
Unknown		8	18		8	6			21		61
TOTAL		8	203	12	22	224	22	22	22	2	615

APPENDIX II (52) (53) (CONTD.)

NOTE: Inappl. = Inapplicable; C.R. = Christian Rites only; Cvl. = Civil only
Ilgl. = Illegal Union; C.R.L. = Christian Rites & Lobola
L. & C. = Lobola & Civil; C.R.C. & L. = Christian Rites Civil and Lobola
Unkn. = Unknown C. & C. = Christian & Civil.

-----oCo-----

A P P E N D I X II. (54)

MARITAL STABILITY - REASON UNION EXPIRED.

Reason	1st Union	2nd Union	Total
Death of Spouse...	82	8	90
Death of Self.....	86	1	87
Divorce	18	2	20
Desertion of Spouse	20	4	24
Desertion of Self..	23	1	24
Illegal Union			
Legalised.....	9	1	10
Mutual Separation ..	4	-	4
Unknown.....			
TOTAL:	248	18	266

A P P E N D I X II (55)

Reason	Christian Rites	N.C.U.	Civil only	Illegal	Christ. R. and Lobola	Unknown	Total
Death of Spouse	19	36	1	5	24	5	90
Death of Self	17	34	1	5	25	5	87
Divorce	10	4	2	-	2	2	20
Desertion of Spouse	4	10	-	5	3	2	24
Desertion of Self	4	10	-	5	2	3	24
Illegal Union Legalised	-	-	-	10	-	-	10
Mutual Separation	-	-	-	2	2	-	4
Unknown	2	-	-	-	-	5	7
TOTAL :	56	94	4	32	58	22	266

APPENDIX II. (56) (57) (58)

EDUCATION OF PERSONS AT SCHOOL.

Age	Pre-School			Not at School			Nursery Creche			S U B.			1 - 3			4 - 6			7 + Vocational			Unknown			Total.		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
-1	18	26	44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	26	44
1	17	15	32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	15	32
2	13	14	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	14	27
3	14	21	35	-	-	-	2	-	2	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	16	22	38
4	12	11	23	-	-	-	1	1	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	13	13	26
5	8	9	17	-	-	-	5	1	6	1	2	3	-	-	-	-	-	-	-	-	-	-	-	-	14	12	26
6	10	8	18	-	-	-	-	-	-	5	6	11	1	-	1	-	-	-	-	-	-	-	-	-	16	14	30
7	-	-	-	-	3	3	-	-	-	9	4	13	-	1	1	-	-	-	-	-	-	-	-	-	9	8	17
8	-	-	-	3	1	4	-	-	-	14	11	25	2	-	2	-	-	-	-	-	-	-	-	-	19	12	31
9	-	-	-	3	1	4	1	-	1	12	11	23	2	3	5	-	-	-	-	-	-	-	-	-	18	15	33
10	-	-	-	2	1	3	-	-	-	9	7	16	5	4	9	-	-	-	-	-	-	-	-	-	16	12	28
11	-	-	-	-	-	-	-	-	-	2	6	8	4	8	12	-	-	-	-	-	-	-	1	1	6	15	21
12	-	-	-	-	-	-	-	-	-	5	2	7	7	14	21	3	-	3	-	-	-	-	-	-	15	16	31
13	-	-	-	-	1	1	-	-	-	2	-	2	5	9	14	2	3	5	-	-	-	-	-	-	9	13	22
14	-	-	-	-	-	-	-	-	-	1	2	3	6	4	10	2	9	11	-	-	-	-	-	-	9	15	24
15	-	-	-	-	-	-	-	-	-	1	1	2	2	4	6	3	4	7	-	-	-	-	-	-	6	9	15
16	-	-	-	-	-	-	-	-	-	-	-	-	4	2	6	1	4	5	-	1	1	-	1	1	5	8	13
17	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	2	-	1	1	-	-	-	3	1	4
18	-	-	-	-	-	-	-	-	-	-	-	-	1	2	3	-	3	3	1	1	2	-	-	-	2	6	8
19	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	1	-	1	-	-	-	1	1	2
20 - 24	-	-	-	-	-	-	-	-	-	-	1	1	-	-	-	2	-	2	3	-	3	-	-	-	5	1	6
25 - 29	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	2	-	2
30 - 34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	1	-	1
35 - 39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	1	3
40 - 44	-	-	-	-	-	-	-	-	-	1	1	2	-	-	-	-	-	-	1	-	-	-	-	-	2	1	3
45 - 49	-	-	-	-	-	-	-	-	-	1	1	2	1	-	1	-	-	-	-	-	-	-	-	-	2	1	3
50 +	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	-	1	1	2
TOTAL:	92	104	196	8	7	15	9	2	11	63	56	119	42	53	95	16	23	39	9	4	13	-	2	2	239	251	490

A P P E N D I X I I . (5 9)

E D U C A T I O N O F P E R S O N S W H O H A V E L E F T S C H O O L .

Age	No education			S U P			1 - 3			4 - 6			7 + Vocational			Unknown			Inapplicable			T O T A L		
	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.	M.	F.	T.
0 - 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
6 - 9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	2	2	-
10 -14	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2	2	-	3	3	-
15	-	-	-	1	-	1	1	1	2	2	-	2	-	-	-	-	-	-	-	-	-	4	1	5
16	-	-	-	-	-	-	3	2	5	1	2	3	-	-	-	-	-	-	-	-	-	4	4	8
17	-	-	-	-	-	-	2	1	3	1	1	2	1	-	1	-	-	-	-	-	-	4	2	6
18	-	-	-	-	-	-	6	2	8	6	4	10	-	1	1	-	1	1	-	-	-	12	8	20
19	-	-	-	-	-	-	2	2	4	4	6	10	-	-	-	-	1	1	-	-	-	6	9	15
20 -24	9	7	16	5	2	7	18	11	29	24	18	42	6	1	7	3	-	3	-	-	-	65	39	104
25 -29	14	8	22	2	4	6	11	12	23	11	16	27	9	5	14	6	-	6	-	-	-	53	45	98
30 -34	17	18	35	1	4	5	6	16	22	17	15	32	6	2	8	2	-	2	-	-	-	49	55	104
35 -39	11	14	25	6	5	11	6	12	18	18	11	29	6	5	11	5	3	8	-	-	-	52	50	102
40 -44	20	16	36	7	6	13	10	6	18	11	6	17	7	5	12	3	1	4	-	-	-	58	40	98
45 -49	18	13	31	5	4	9	9	-	9	8	3	11	4	1	5	2	-	2	-	-	-	46	21	67
50 -54	13	10	23	1	1	2	3	4	7	4	-	4	1	-	1	2	-	2	-	-	-	24	15	39
55 -59	1	5	6	1	2	3	-	1	1	3	2	5	-	-	-	1	1	2	-	-	-	6	11	17
60 +	13	25	38	3	1	4	2	3	5	1	6	7	2	-	2	1	-	1	-	-	-	22	35	57
Unknown	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	1	-	1	-	-	-	2	-	2
TOTAL:	116	116	232	32	30	62	90	73	163	111	90	201	42	20	62	26	7	33	-	4	4	407	340	747

PART III : ORLANDO HOUSES.

APPENDIX III. (1) :

NUMBER OF HOUSES FOR EACH TYPE OF HOUSE .

TYPE OF HOUSE	NUMBER.
5/- Single Shelter	71
10/- Double Shelter	6
17/4 Two Roomed	83
£1.1.3d. Old Three Roomed	41
£1. 8. 2d. Old Four Roomed	5
£1.12. 6d. Three Roomed semi-detached	7
£1.15. 0d. Three Roomed detached	8
£2.10. 0d. Four Roomed	9
TOTAL :-	230

APPENDIX III. (2).

SIZE OF HOUSEHOLD ACCORDING TO TYPE OF HOUSE (BY RENT).

SIZE OF HOUSEHOLD.	5/-	10/-	17/4	£1.1.0.	£1.8.2.	£1.12.6.	£1.15.0.	£2.10. 0.	TOTAL NO. OF PEOPLE.
1.	2	-	1	-	-	-	-	-	3
2.	13	-	10	6	-	-	1	-	30
3.	15	-	17	3	-	-	2	-	37
4.	13	-	8	3	1	-	-	3	28
5.	10	-	9	5	1	2	2	-	29
6.	7	1	8	5	1	-	-	1	23
7.	3	2	14	5	-	2	-	1	27
8.	6	1	5	5	2	1	2	1	23
9.	1	1	8	4	-	1	1	1	17
10.	-	1	2	3	-	-	-	-	6
11.	-	-	-	1	-	1	-	1	3
12.	1	-	1	1	-	-	-	-	3
13.	-	-	-	-	-	-	-	1	1
TOTAL	71	6	83	41	5	7	8	9	230
Total No. of People	307	47	439	252	31	52	43	66	1237

APPENDIX III. (S).

TYPE OF HOUSE ACCORDING TO SIZE OF HOUSEHOLD (ONLY DOMICILED).

SIZE OF HOUSEHOLD.	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
5/- Single Shelter	2	13	15	13	10	7	3	6	1	-	-	1	-	71
10/- Double	-	-	-	-	-	1	2	1	1	1	-	-	-	6
17/4d Two Rnd 1	10	17	8	9	8	14	5	8	2	-	1	-	-	83
El. 1. 8d.														
Old 3-Roomed	-	6	3	3	5	5	5	5	4	3	1	1	-	41
El. 8. 2d.														
Old 4-Roomed	-	-	-	1	1	1	-	2	-	-	-	-	-	5
El. 12. 5d.														
3-Rnd semi-detach.	-	-	-	-	2	-	2	1	1	-	1	-	-	7
El. 15. 0d.														
3-Rnd detached	-	1	2	-	2	-	-	2	1	-	-	-	-	8
El. 10. 0d.														
4-Roomed	-	-	-	3	-	1	1	1	1	-	1	-	1	9
TOTAL :-	3	30	37	28	29	23	27	23	17	6	5	3	1	230

APPENDIX III (4) (5) (6) (7) (8)

TYPE OF HOUSES ACCORDING TO TYPE OF HOUSEHOLD.

Type of Household	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	TOTAL
T.N.F.	35	-	31	4	-	1	4	-	85
EXT.F. and DEPENDANTS	15	4	24	3	2	3	2	5	68
T.N.F. and Rel. Family	9	1	8	5	-	3	1	2	29
EXT.REL.F. & S./T...	5	-	11	3	-	-	-	1	20
T.N.F.&S./T.&/or F.UNREL.	3	-	6	4	2	-	1	-	16
EXT. F. & S./T.....	3	-	3	1	1	-	-	-	8
T.N.F. & REL.&S./T....	1	-	-	-	-	-	-	-	1
EXT.F. & P.F. & S./T.	-	1	-	1	-	-	-	1	3
<u>TOTAL :</u>	71	6	83	41	5	7	8	9	230

NOTE: The alphabets from (a) to (h) in Appendix III 1(c) represent the following:-

(a) = 5/- Single Shelter
 (b) = 10/- Double Shelter
 (c) = 17/4d. Two Roomed
 (d) = £1.1.8. Old 3Roomed.

(e) = £1. 8. 2. Old 4 - Roomed
 (f) = £1.12. 6.3Rmd.semi-detached.
 (g) = £1.15.-. 3Roomed detached.
 (h) = £2.10.-. 4Roomed.

APPENDIC III (9).

USE OF ROOM 1 ACCORDING TO TYPE OF HOUSE AND RENTAL.

USE OF ROOMS.	New 3.Roomed £2.10.0.	New 3.Roomed £1.15.0.	New 3.Roomed £1.12.6.	£1.8.2.	£1.1.8.	2.Roomed 17/4	Double 10/-	Single 5/-	TOTAL.
Kitchen -----	3	-	-	4	16	-	-	-	23
K./DR./SR.-----	1	3	1	-	7	9	-	-	21
K./Bedroom -----	3	-	-	1	14	-	-	-	18
K./Dining Room ----	1	2	-	-	-	-	-	-	3
K./Living Rm./Bd.Rm.	-	1	4	-	4	47	2	23	81
K./Dining/Sleeping	1	1	-	-	-	2	-	-	4
K.SR.-----									
When K.partitioned 1 sect.for K. other L/R	-	-	2	-	-	4	-	-	6
When K.partitioned 1 sect.for K.other for LR/BR.	-	-	-			12			12
When K.partitioned 1 sect. for K/BR, other for LR.						1			1
When K.partitioned 1 sect.for K/BR.other LR/DR						6			6
When K.partitioned 1 sect.for K.other for DR.						1			1
LR/BR.	-	-	-	-	-	-	4	46	50
One sect.for K./LR/BD other section for BR						1			1
Shop and Bed Room								1	1
When partitioned: 1 sect. for K.other for BR		1							1
LR/BR/Shop								1	1
TOTAL:	9	8	7	5	41	83	6	71	230

NOTE: Figures in brackets (1) to (8) represent the following:-

- | | | | |
|------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------|
| (8) = New four-roomed
£2.10.0d. | (7) = New three-roomed
£1.15.0d. | (6) = New three-roomed
£1.12.6d. | (5) = Old four-roomed
£1.8.2d. |
| (4) = Old three-roomed
£1.1.8d. | (3) = Two-roomed
£-.17/4 | (2) = Double Shelter
10/- | (1) = Single Shelter
5/-. |

APPENDIX III (10).

USE OF ROOM 1 ACCORDING TO SIZE OF HOUSEHOLD.

NUMBER OF PERSONS IN HOUSEHOLD.

USE OF ROOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	TOTAL
KITCHEN-----	-	5	2	5	3	3	1	2	1	1	-	-	-	23
K./LR.-----	1	6	4	2	3	2	-	1	-	1	-	-	1	21
K./BR.-----	-	-	-	1	1	2	4	4	2	1	2	1	-	18
K./DR.-----	-	-	1	-	1	-	-	-	1	-	-	-	-	3
K./LR./BR.(Shelter)-----	1	6	16	9	10	8	10	6	12	1	1	1	1	81
K./DR./Sleeping-----	-	-	-	1	1	-	-	-	2	-	-	-	-	4
When K.part.1 sect.for K.other LR/-----	-	4	-	-	1	-	1	-	-	-	-	-	-	6
When K.part. 1 sect. for K.other LR/BR.---	-	1	2	1	2	3	3	-	-	-	-	-	-	12
When K.part. 1 sect. for K/BR."other LR"---	-	-	1	-	-	-	-	-	-	-	-	-	-	1
When K.part. 1 sect. for K/BR other LR/BR.	-	-	-	-	1	-	3	-	-	1	-	1	-	6
When K.part. 1 sect. for K.other for K/DR.	-	1	-	-	-	-	-	-	-	-	-	-	-	1
LR/BR.-----	-	7	9	9	7	5	5	6	1	1	-	-	-	50
One section for K/LR/BR other for BR.-----	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Shop and BR.-----	1	-	-	-	-	-	-	-	-	-	-	-	-	1
When K.part. 1 sect. for K. other BR.-----	-	1	-	-	-	-	-	-	-	-	-	-	-	1
LR./BR./SHOP-----	-	-	-	-	-	-	-	1	-	-	-	-	-	1
TOTAL:	3	30	37	28	29	23	27	23	17	6	3	3	1	230

APPENDIX III (11).

USE OF ROOMS 2. 3. 4 AND VERANDAH ACCORDING TO HOUSE TYPE
AND RENTAL.

USE OF ROOMS	NEW 4-ROOM £2.10.0.			NEW 3-ROOM £1.15.0.		NEW 3-ROOM £1.12.6.		OLD 4-ROOM £1.8.2.				OLD 3-ROOM £1.1.8.			TWO ROOM 17/4		DBL.SH. 10/-	SGL.SH. 5/-	TOTAL
	2	3	4	2	3	2	3	2	3	4	V	2	3	V	2	Ver.	2	Ver.	Ver.
LIVING ROOM	3	-	-	-	-	-	-	1	-	-	-	5	1	-	-	-	-	-	10
LR./BR.	3	-	-	-	-	-	-	4	-	-	-	24	-	-	-	-	-	-	31
BR. in or case of shelter Kitchen	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	-	3	25
BR./BR.-----	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Shelter K/BR. DR.or in case of ---	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	22	24
Guest Rm.or Store Rm.	-	-	-	-	-	-	-	-	-	1	-	1	1	-	10	-	-	-	13
Shop or School BR.	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	1	-	3	7
BR. Only -----	1	9	9	4	8	7	7	-	5	5	-	12	39	-	83	3	5	-	197
TOTAL:	9	9	9	8	8	7	7	5	5	5	1	41	41	2	83	17	6	4	317

APPENDIX III (12)

(b) (iv) USE OF ROOMS 2/3/4 VERANDAH ACCORDING TO SIZE OF HOUSEHOLD.

Use of Rooms	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	TOTAL
LR	1	2	1	5	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	10
LR/BR.....				2	3	2	2	4	1	5	4	3	2	2	-	1	-	-	-	-	31
SHELTER K...	-	2	4	4	5	7	3	3	2	2	-	-	-	-	-	1	-	-	-	-	33
SR/BR.	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	2
IN SHELTER K/BR.....	-	-	1	1	2	2	3	4	1	3	3	3	-	1	-	-	-	-	-	-	24
DR./BR																					
GUESTROOM/ STORE R.	-	-	1	2	1	1	4	2	1	1	-	-	-	-	-	-	-	-	-	-	13
SHOP/SCH. BEDROOM	-	1	-	1	1	1	-	-	2	-	1	-	-	-	-	-	-	-	-	-	7
BR. only	-	5	5	21	22	14	22	21	27	19	9	16	6	4	-	2	1	1	2	-	197
<u>TOTAL:</u>	-	10	12	36	34	28	35	35	34	31	17	22	8	7	-	4	1	1	2	-	317

APPENDIX III (13).

TABLE SHOWING NUMBER OF PERSONS SLEEPING PER ROOM ACCORDING TO
TYPE OF HOUSE AND RENTAL.

NO. OF PERSONS SLEEPING	NEW 4-RMD. \$2.10.0d.				NEW 3.R. £1.15.0.			NEW 3.R. £1.12.6.			OLD 4.RMD. £1.8.2.				OLD 3.RMD. £1.1.8.			Two RMD. 17/4				DDL.SH.SINGLE S. 10/-				TOTAL					
	1	2	3	4	1	2	3	1	2	3	1	2	3	4	1	2	3	Ver	1	2	V. N.142	V. S.	Ver. 11ty.								
1	2	3	2	2	-	-	1	1	-	-	-	2	-	1	3	8	4	1	16	8	3	4	-	-	2	6	1	70			
2	-	1	4	2	-	3	4	1	4	1	1	2	3	3	10	12	13	-	13	40	-	-	-	1	20	8	-	146			
3	1	1	2	2	-	1	2	1	2	3	-	-	2	-	2	7	12	-	16	18	-	-	-	-	16	5	-	93			
4	1	-	-	-	2	-	-	1	1	2	-	-	-	1	3	4	6	-	15	8	-	-	-	-	17	2	1	64			
5	-	-	1	2	-	-	1	-	-	1	-	-	-	-	-	4	2	-	4	6	-	-	-	-	9	1	-	31			
6	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	1	-	3	3	-	-	1	-	5	-	-	15			
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	-	-	2	-	1	-	-	6			
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	2	-	-	-	-	4			
9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1			
10, 11, & 13-18					NIL																										0
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1			
TOTAL:	4	5	9	9	2	5	8	4	7	7	1	4	5	5	18	36	39	1	70	83	3	2	6	1	71	22	2	431			

APPENDIX III (14).

(a) - COMMENTS ON STOEP ACCORDING TO EDUCATION OF HEAD.

EDUCATION	FRONT STOEP	BACK STOEP	NO STOEP	DON'T CARE	TOTAL
Nil	75	1	2	2	80
Sub.	20	1	1	1	23
Primary	80	2	5	1	88
Secondary	11	-	2	-	13
Technical	6	-	-	-	6
Nursing & Teaching	5	-	1	-	6
Unknown	13	-	1	-	14
TOTAL	210	4	12	4	230

(b) - COMMENTS ON STOEP ACCORDING TO TYPE OF HOUSE
LIVED IN.

Type of House	FRONT STOEP	BACK STOEP	NO STOEP	DON'T CARE	TOTAL
5/- Single Shelter	65	1	3	2	71
10/- Double Shelter	6	-	-	-	6
17/4 two-roomed	77	1	5	-	83
21.1.8 three-roomed	36	1	3	1	41
21.8.2. four-roomed	4	-	1	-	5
21.12.6. three-roomed	6	-	-	1	7
21.15.0 three-roomed	7	1	-	-	8
22.10.0. four-roomed	9	-	-	-	9
TOTAL	210	4	12	4	230

(c) - COMMENTS ON STOEP ACCORDING TO INCOME OF HEAD.

INCOME OF HEAD	FRONT STOEP	BACK STOEP	NO STOEP	DON'T CARE	TOTAL
£1.10.0.	21	-	4	1	26
£1.10.0. - £4.9.11.	11	-	-	-	11
£4.10.0. - £9.9.11	57	2	-	1	60
£9.10.0. - £14.9.11.	79	2	3	1	85
£14.10.0. - £19.9.11	17	-	2	1	20
£19.10.0. - £24.9.11.	14	-	1	-	15
£24.10.0. - £29.9.11.	5	-	-	-	5
£29.10.0. - £34.9.11.	3	-	1	-	4
£34.10.0. - £39.9.11.	-	-	1	-	1
100 +	1	-	-	-	1
Unknown	2	-	-	-	2
TOTAL	210	4	12	4	230

(d) - COMMENTS ON STOEP ACCORDING TO SIZE OF HOUSEHOLD.

SIZE OF HOUSEHOLD	FRONT STOEP	BACK STOEP	NO STOEP	DON'T CARE	TOTAL
2	10	-	-	-	10
3	12	-	1	-	13
4	21	1	1	-	23
5	27	-	-	-	27
6	19	-	1	1	21
7	27	-	1	-	28
8	21	1	3	-	25
9	24	1	1	-	26
10	16	1	1	-	18
11	8	-	-	3	11
12	14	-	1	-	15
13	4	-	-	-	4
14	3	-	1	1	4
15	-	-	-	-	-
16	2	-	-	-	2
17	-	-	1	1	1
18	1	-	-	-	1
19	1	-	-	-	1
TOTAL	210	4	12	4	230

APPENDIX III (15).

(a) - COMMENTS ON KITCHEN ACCORDING TO EDUCATION OF HEAD.

EDUCATION	LARGE K/LR WITH S. SCREENED OFF	LARGE K/DR. AT B.WITH SMALL F.D/R.	SMALL K. AT B. WITH LARGE F.D/R.	AS AT PRESENT CARE	DON'T CARE	TOTAL.
Nil	4	20	45	10	1	80
Sub.	1	5	16	1	-	23
Primary	2	26	56	4	-	88
Secondary	-	3	10	-	-	13
Technical	1	1	4	-	-	6
Nursing & Teaching	-	2	4	-	-	6
Unknown	1	2	11	-	-	14
TOTAL	9	59	146	15	1	230

(b) COMMENTS ON KITCHEN ACCORDING TO TYPE OF HOUSE.

TYPE OF HOUSE	LARGE K/LR WITH S. SCREENED OFF	LARGE K/DR AT B.WITH SMALL F.S/R.	SMALL K. AT B.WITH LARGE F.D/R	AS AT PRESENT CARE	DON'T CARE	TOTAL
5/- Single Shelter	5	16	42	7	1	71
10/- Double Shelter	-	1	4	1	-	6
17/4 two-roomed	1	22	55	5	-	83
£1.1.8. 3-roomed	1	12	27	1	-	41
£1.18.2. 4-roomed	1	1	3	-	-	5
£1.12.6. 3-roomed	-	3	4	-	-	7
£1.15.0. 3-roomed	1	3	3	1	-	8
£2.10.0. 4-roomed	-	1	8	-	-	9
TOTAL	9	59	146	15	1	230

APPENDIX III (16).

(a) COMMENTS ON WASHING FACILITIES ACCORDING TO EDUCATION OF HEAD.

COMMENTS ON BATHROOM.

EDUCATION OF HEAD	SHOWER	BOILER	DON'T CARE	TOTAL
Nil	10	67	1	80
Sub.	4	19	-	23
Primary	14	72	2	88
Secondary	-	13	-	13
Technical	2	4	-	6
Nursing and Teaching	-	6	-	6
Unknown	3	11	-	14
TOTAL	33	192	5	230

(b) COMMENTS ON WASHING FACILITIES ACCORDING TO TYPE OF HOUSE.

TYPE OF HOUSE	SHOWER	BOILER	DON'T CARE	TOTAL
5/- Single Shelter	17	53	1	71
10/- Double Shelter	1	4	1	6
17/4 2-roomed	11	69	3	83
£1.1.8 3-roomed	2	39	-	41
£1.8.2. 4-roomed	-	5	-	5
£1.12.6. 3-roomed	-	7	-	7
£1.15.0. 3-roomed	1	7	-	8
£2.10.-.4-roomed	1	8	-	9
TOTAL	33	192	5	230

(c) COMMENTS ON WASHING FACILITIES ACCORDING TO SIZE OF HOUSEHOLD.

SIZE OF HOUSEHOLD	SHOWER	BOILER	DON'T CARE	TOTAL
2	3	6	1	10
3	5	8	-	13
4	4	19	-	23
5	3	24	-	27
6	6	14	1	21
7	2	26	1	28
8	5	20	-	25
9	1	24	-	26
10	1	17	-	18
11	1	9	1	11
12	1	14	-	15
13	1	3	-	4
14	-	4	-	4
15	-	-	-	-
16	-	1	1	2
17	-	1	-	1
18	-	1	-	1
19	-	1	-	1
TOTAL	33	192	5	230

(d) COMMENTS ON WASHING FACILITIES ACCORDING TO INCOME OF HEAD.

INCOME OF HEAD	SHOWER	BOILER	DON'T CARE	TOTAL
£1.10.0	6	18	2	26
£1.10.0.-£4.19.11	2	9	-	11
£4.10.0.-£9.19.11	9	49	2	60
£9.10.0.-£14.9.11	10	74	1	85
£14.10.0.-£19.9.11	3	17	-	20
£19.10.0.-£24.9.11	3	12	-	15
£24.10.0.-£29.9.11	-	5	-	5
£29.10.0.-£34.9.11	-	4	-	4
£34.10.0.-£39.9.11	-	1	-	1
100 +	1	-	-	1
Unknown	2	-	-	2
TOTAL	33	192	5	230

APPENDIX III (17)

(a) COMMENTS ON STORAGE FACILITIES ACCORDING TO TYPE OF HOUSE.

TYPE OF HOUSE	Unknown	Don't care or none	Pantry only	Shvs.in K.only	B/in/C in B/R only	P. & Shvs. in K.	P.Shvs. in K.& B/in/C in B/R.	P. & B/in/C in B/R.	Shvs. in K. & B/in/C. in B/R.	TOTAL
5/-single shelter ...	-	1	26	2	1	7	9	25	-	71
10/- Double shelter ...	-	1	-	1	-	2	-	2	-	6
17/4 two-roomed ...	1	6	23	1	1	7	24	19	1	83
£1.1.8d. 3-roomed. ...	-	-	13	-	-	6	12	10	-	41
£1.8.2 d. 4-roomed. ...	-	-	-	-	-	1	-	4	-	5
£1.12.6. 3-roomed. ...	-	-	2	-	-	-	4	1	-	7
£1.15.0. 4-roomed. ...	-	-	1	-	-	-	4	3	-	8
£2.10.0. 4-roomed. ...	-	-	4	-	-	1	2	2	-	9
TOTAL ...	1	8	69	4	2	24	55	66	1	230

APPENDIX III (17)

(b) COMMENTS ON STORAGE FACILITIES ACCORDING TO EDUCATION OF HEAD.

EDUCATION	Unknown	Don't care or none.	Pantry only.	Shvs.in K.only	B/in/C in B/R only	P. & Shvs. in K.	P.Shvs. in K.& B/in/C in B/R	P.& B/in/C in B/R	Shvs. in K. & B/in/C. in B/R	TOTAL	
Nil	...	-	4	28	1	-	7	20	20	-	80
Sub.	...	-	-	4	1	1	2	4	11	-	23
Primary	...	-	4	26	2	1	7	22	25	1	88
Secondary	...	-	-	3	-	-	2	3	5	-	13
Technical	...	-	-	2	-	-	2	1	1	-	6
Nursing & Teaching.	...	-	-	3	-	-	1	1	1	-	6
Unknown	...	1	-	3	-	-	3	4	3	-	14
TOTAL	...	1	8	69	4	2	24	55	66	1	230

(c) COMMENTS ON STORAGE FACILITIES ACCORDING TO INCOME OF HEAD.

INCOME	Unknown	Don't care or none	Pantry only	Shvs.in K.only	B/in/C in B/R only.	P. & Shvs. in K.	P.Shvs. in K.& B/in/C in B/R	P. & B/in/C in B/R	Shvs. in K. & B/in/C in B/R	TOTAL
Below £1.10.0.	1	2	5	-	1	2	7	8	-	26
£1.10.0-£4.9.11.	-	1	3	-	-	3	3	1	-	11
£4.10.0.-£9.9.11.	-	2	19	1	-	4	12	22	-	60
£9.10.0.-£14.9.11.	-	2	25	3	1	10	23	20	1	85
£14.10.0.-£19.9.11.	-	-	5	-	-	1	7	7	-	20
£19.10.0.-£24.9.11.	-	-	7	-	-	1	2	5	-	15
£24.10.0.-£29.9.11.	-	1	2	-	-	1	1	-	-	5
£29.10.0.-£34.9.11.	-	-	1	-	-	1	-	2	-	4
£34.10.0.-£39.9.11.	-	-	1	-	-	-	-	-	-	1
£100 +	-	-	1	-	-	-	-	-	-	1
Unknown	-	-	-	-	-	1	-	1	-	2
TOTAL ...	1	8	69	4	2	24	55	66	1	230

(a) COMMENTS ON STORAGE FACILITIES ACCORDING TO SIZE OF HOUSEHOLD.
(DOMICILED IN ORLANDO.)

SIZE OF HOUSEHOLD		Unknown	Don't care or none	Pantry only	Shvs.in K.only.	B/in/C in B/R only.	P. & Shvs. in K.	P.Shvs. in K.& B/in/C in B/R	P.& B/in/C in B/R	Shvs. in K. & B/in/C in B/R	TOTAL
2	...	-	1	4	-	-	1	3	1	-	10
3	...	-	1	6	1	-	-	2	3	-	13
4	...	-	1	9	-	1	4	2	6	-	23
5	...	-	-	7	-	-	4	8	7	1	27
6	...	1	1	8	1	-	1	4	5	-	21
7	...	-	-	9	-	-	2	7	10	-	28
8	...	-	1	7	1	-	1	7	8	-	25
9	...	-	1	6	-	-	3	9	7	-	26
10	...	-	-	7	-	1	2	3	5	-	18
11	...	-	1	3	-	-	-	2	5	-	11
12	...	-	-	1	1	-	3	4	6	-	15
13	...	-	-	-	-	-	1	1	2	-	4
14	...	-	-	1	-	-	1	2	-	-	4
15	...	-	-	-	-	-	-	-	-	-	0
16	...	-	1	-	-	-	-	1	-	-	2
17	...	-	-	-	-	-	1	-	-	-	1
18	...	-	-	-	-	-	-	-	1	-	1
19.	...	-	-	1	-	-	-	-	-	-	1
20	...	-	-	-	-	-	-	-	-	-	0
TOTAL	...	1	8	69	4	2	24	55	66	1	230

PART IV : OVERCROWDING

APPENDIX IV (17) (18) (19) (20) (21) (22) (23)

DISTRIBUTION OF DWELLINGS (M.O.S.) ACCORDING TO INCOME.

<u>Income.</u>	<u>Overcrowded</u>	<u>Crowded.</u>	<u>Uncrowded.</u>	<u>All Households.</u>
	F.	F.	F.	F.
0 - 9	6	13	3	22
10 - 19	40	20	28	88
20 - 29	40	20	14	74
30 - 39	11	5	4	20
40 - 49	14	3	2	19
Unknown	5	2	-	7
<u>ALL INCOMES:</u>	116	63	51	250 *

APPENDIX VI (2)

OVERCROWDING AND UNCROWDED DWELLINGS (M.O.S) ACCORDING TO NUMBER OF ROOMS.

<u>Rooms.</u>	<u>Overcrowded</u>	<u>Uncrowded.</u>
	F.	F.
1	52	37
2	54	13
3	8	1
4	2	-
<u>ALL ROOMS :</u>	116	51

NOTE: For Income the income of households including the earnings of partially dependent persons have been used. This table does not correspond to the one of incomes of persons domiciled in Orlando.

APPENDIX IV (3) (4) (5) (6) (7) (8) (9) (10) (11)

DISTRIBUTION OF DWELLINGS ACCORDING TO STRUCTURE.

<u>Rooms in Structure.</u>	<u>Overcrowded</u>	<u>Crowded</u>	<u>Uncrowded.</u>	<u>Overcrowded plus Crowded.</u>	<u>Total No. of Dwellings.</u>
	F	F	F	F	F
1	13	8	0	21	21
2	64	31	24	95	119
3	37	19	18	56	74
4	2	5	9	7	16
<u>ALL STRUCTURES:</u>	116	63	51	179	230

APPENDIX IV (12) (13) (14) (15) (16)

DISTRIBUTION OF DWELLINGS (M.O.S.) ACCORDING TO TYPE OF HOUSE AND
RENTAL.

<u>Type of House.</u>	<u>Rental.</u>	<u>Overcrowded.</u>	<u>Crowded.</u>	<u>Uncrowded.</u>	<u>All Houses.</u>
		F	F	F	F
Shelter	5/-	35	22	14	71
Double Shelter	10/-	6	-	-	6
Two-roomed	17/4	43	23	17	83
Old Three-roomed	£1.1.8.	22	10	9	41
Old Four-roomed	£1.8.2.	-	3	2	5
New Three-roomed (S-D)	£1.12.6.	5	2	-	7
New Four-roomed.	£2.10.-.	2	2	5	9
<u>OLD HOUSES:</u>		116	63	51	230

APPENDIX IV (24) (25) (26) (27) (28) (29) (30) (31) (32)

PERSONAL INCIDENCE OF OVERCROWDED, CROWDED AND UNCROWDED DWELLINGS (M.O.S)
ACCORDING TO AGE.

<u>Age.</u>	<u>Overcrowded.</u>	<u>Crowded.</u>	<u>Uncrowded.</u>	<u>Overcrowded + Crowded.</u>	<u>Total Population.</u>
	F	F	F	F	
0 - 4	125	31	12	156	168
5 - 9	101	34	5	135	140
10 - 14	99	24	8	123	131
15 - 19	72	13	8	85	93
20 - 24	83	18	10	101	111
25 - 29	64	28	7	92	99
30 - 34	55	24	25	79	104
35 - 39	50	31	24	81	105
40 - 44	55	27	18	82	100
45 - 49	38	18	12	56	68
50 - 59	35	15	8	50	58
60 +	39	12	7	51	58
Unknown	2	-	-	2	2
<u>ALL AGES:</u>	818	275	144	1093	1237

APPENDIX IV (34) (35)

The L.R.O.S. BY THE NUMBER OF ROOMS OF OVERCROWDED AND UNCROWDED.

<u>Rooms.</u>	<u>Overcrowded.</u>	<u>Uncrowded.</u>
	F.	F.
1	77	8
2	68	1
3	35	-
4	6	-
5	1	-
<u>TOTAL :</u>	187	9

TABLE IV (35)

AGE DISTRIBUTION OF UNCROWDED PERSONS:

Age	<u>Percentage Distribution</u>		
	<u>P.</u>	<u>W.W.</u>	<u>C.W.</u>
0 - 4	8		
5 - 9	3		
10 - 14	6		
15 - 19	6		
20 - 24	7		
25 - 29	5		
30 - 34	17		
35 - 39	17		
40 - 44	13		
45 - 49	8		
50 - 59	6		
60 plus	5		

APPENDIX II (39)

- (a) Total Number of Unemployed in Orlando.
 (b) Numbers of Unemployed according to Sex and Marital Status.

	Married			Single			Deserted Widowed Divorced			Total.		
	<u>M.</u>	<u>F.</u>	<u>T.</u>	<u>M.</u>	<u>F.</u>	<u>T.</u>	<u>M.</u>	<u>F.</u>	<u>T.</u>	<u>M.</u>	<u>F.</u>	<u>T.</u>
53 Unemployed	12	10	22	22	12	34	3	1	4	37	23	60
54 Unemployed	10	9	19	7	24	31	3	10	13	20	43	63
Idle	-	1	1	4	3	7	1	2	3	5	6	11
<u>TOTAL :</u>	22	20	42	33	39	72	7	13	20	62	72	134

PART V : ESTIMATING HOUSING NEEDS.

TABLE V (1)

HOUSING REQUIREMENTS OF HOUSEHOLDS ACCORDING TO SIZE OF DWELLING.

No. of Rooms.	Based on M.O.S.	Based on L.R.O.S.
1	41	-
2	49	43
3	50	73
4	69	73
5	17	34
6	4	6
7	-	1
ALL ROOMS:	230	230

TABLE V (2)

PRESENT HOUSING POSITION IN ORLANDO ACCORDING TO THE SIZE OF THE DWELLING.

No. of Rooms.	F.
1	71
2	89
3	86
4	14
5	-
6	-
ALL ROOMS:	230

TABLE V (4)

HOUSING REQUIREMENTS OF TYPES OF FAMILIES IN ORLANDO ACCORDING TO SIZE OF DWELLINGS.

No. of Rooms.	Based on M.O.S.	Based on L.R.O.S.
	F	F
1	41	-
2	56	41
3	60	83
4	55	77
5	16	22
6	2	6
7	-	1
ALL ROOMS:	230	230

TABLE V (5)

HOUSING REQUIREMENTS OF NATURAL FAMILIES WITH NO HOUSE IN ORLANDO BUT WHO HOUSE AT LEAST ONE RESIDENT IN ORLANDO, ACCORDING TO SIZE OF DWELLING REQUIRED.

No. of Rooms.	Based on M.O.S.	Based on L.R.O.S.
	F	F
1	34	6
2	30	34
3	10	35
4	5	9
5	0	1
6	0	0
7	0	0
ALL ROOMS:	79	79

TABLE V (6)

HOUSING REQUIREMENTS OF ALL NATURAL FAMILIES IN ORLANDO BASED ON THE
MINIMUM OCCUPANCY STANDARD AND THE LIVING ROOM OCCUPYING STANDARD
ACCORDING TO THE SIZE OF THE HOUSE REQUIRED.

No. of Rooms.	Based on M.O.S.	Based on L.R.O.S.
	F	F
1	75	-
2	86	75
3	70	118
4	60	86
5	16	23
6	2	6
7	0	1
<u>ALL ROOMS:</u>	309	309

TABLE V (7)

HOUSING REQUIREMENTS OF THE EXTENDED FAMILIES IN ORLANDO ACCORDING TO THE
M.O.S. AND THE L.R.O.S. ACCORDING TO THE SIZE OF THE HOUSE REQUIRED.

No. of Rooms.	Based on M.O.S.	Based on L.R.O.S.
1	0	0
2	15	0
3	21	25
4	24	25
5	9	19
6	1	3
<u>ALL ROOMS:</u>	70	70

TABLE V (8)

HOUSING REQUIREMENTS OF TENANTS' NATURAL FAMILIES, PLUS EXTENDED FAMILIES IN ORLANDO BASED ON THE M.O.S. AND L.P.O.S. ACCORDING TO THE REQUIRED SIZE OF THE DWELLINGS.

No. of Rooms.	Based on M.O.S.	Based on L.P.O.S.
	F	F
1	27	-
2	54	27
3	58	79
4	67	82
5	21	32
6	3	9
7	0	1
ALL ROOMS:	230	230

TABLE V (9)

HOUSING REQUIREMENTS OF HOUSEHOLDS IN ORLANDO BASED ON THE BUILDING RESEARCH INSTITUTE STANDARD.

No. of Bedrooms	F
1	34
2	69
3	52
4	49
5	19
6	6
7	1
TOTAL :	230

TABLE V (10)

HOUSING NEEDS OF TENANT NATURAL FAMILY BASED ON THE BUILDING
RESEARCH INSTITUTE STANDARD.

No. of Bedrooms.	F
1	33
2	71
3	68
4	40
5	13
6	3
7	2
TOTAL :	230

TABLE V (11)

HOUSING NEEDS OF TENANT EXTENDED FAMILIES BASED ON THE BUILDING
RESEARCH INSTITUTE STANDARD.

No. of Bedrooms.	F
1	22
2	65
3	65
4	48
5	24
6	2
7	4
TOTAL :	230

LEGEND

-  SHELTERS.
-  LATRINES.
-  PUBLIC AND NON-RESIDENTIAL BUILDINGS:-
(USE DENOTED BY LETTER)
- W - PLACE OF WORSHIP.
- E - EDUCATION.
- A - ASSEMBLY.
- C.C. - COMMUNITY CENTRE.
- L - LIBRARY.
- I - INSTITUTION.
- P.O. - POST OFFICE.
- S.O. - SUPERINTENDENT'S OFFICE.
- P.S. - POLICE STATION.
- Δ S. - SHOP.
-  VACANT RESIDENTIAL STAND.
-  PUBLIC OPEN SPACE
-  BOUNDARY OF SUPERINTENDENCY.
-  NOT IN EXISTENCE AT THE TIME OF SURVEY 1948.



SCALE

1/10,000

DATE

18TH JULY 1949

DRAWN BY:-

S.H. M.

P H O T O G R A P H S

V I E W F R O M O R L A N D O W E S T I . . . O R L A N D O W E S T I I P R E F A B R I C A T E D
H O U S E S I N T H E B A C K G R O U N D . S H E L T E R S I N T H E F O R E G R O U N D .





NEW THREE-ROOMED.



Nº 8. OLD TWO-ROOMED SEMI-DETACHED.



NEW THREE-ROOMED.



Nº 12. OLD THREE-ROOMED.

Nº 2

NEW FOUR-ROOMED.



Nº 9. OLD TWO-ROOMED

Nº 1



IMPROVEMENTS



HOUSES
AND
GARDENS.



STREET SCENES · ORLANDO SHELTERS





STREET VENDORS.



BLACKSMITH.

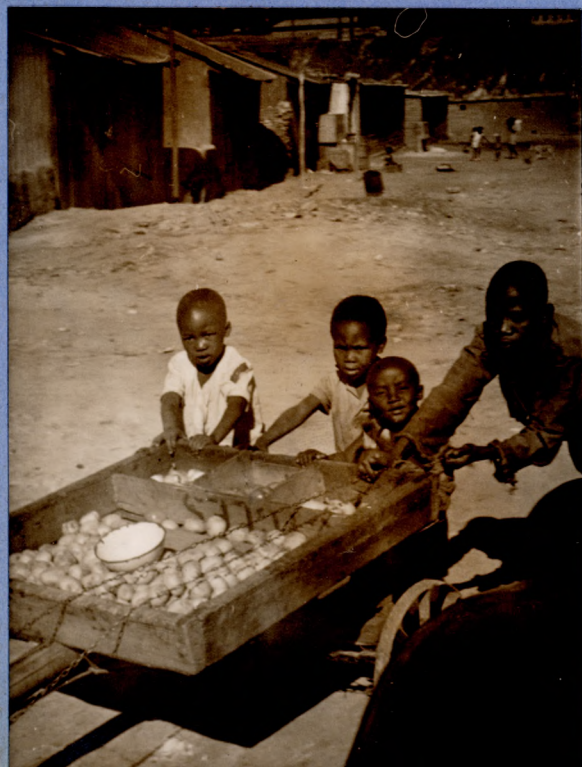
WASHING.



OCCUPATION . MEN
WOMEN AND CHILDREN .

BREADWINNERS ALL

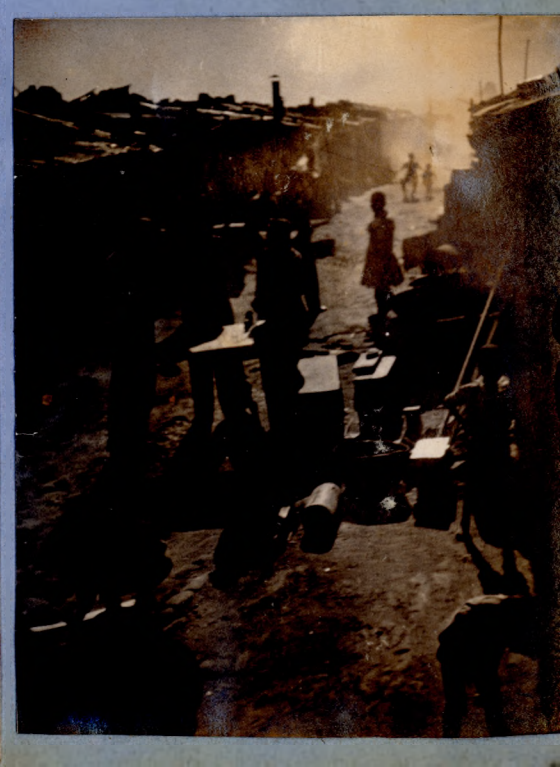
POTATO SELLERS.



MILK HAWKER.

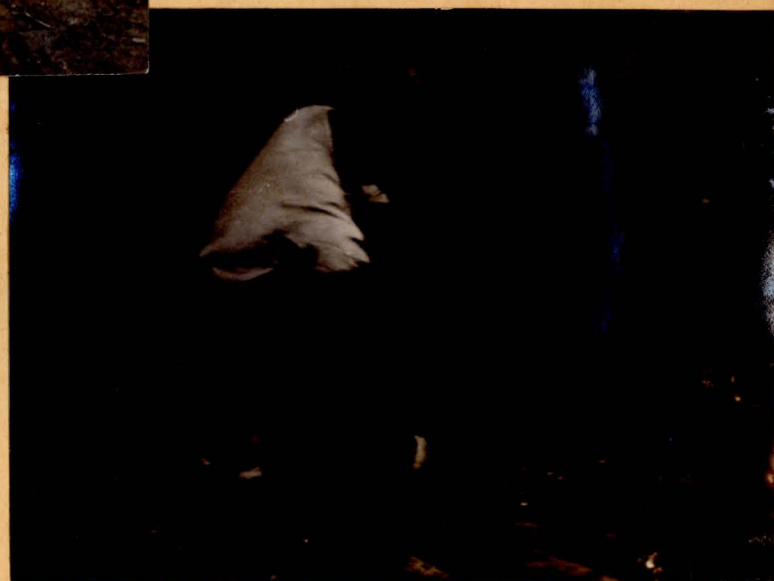


CARPENTER.





WHEN I WAS A CHILD . . .



NOW THAT I AM A MAN . . .



DONALDSON COMMUNITY CENTRE.



A M E N I T I E S .

MUNICIPAL CENTRES.



CHURCH AND SCHOOL.



CLINIC.

