

# A better life up north



Nhulunbuy, a town of 3500 on the north-eastern tip of Arnhem Land, was built because of the bauxite there; its industries, which got under way in 1972, are mining and alumina manufacture. No road leads to Nhulunbuy. It's a new community and one of the most isolated in Australia.

Mt Isa is a much older and larger settlement. It has developed from a single-industry town—supported by the lead-, zinc-, and copper-mining that began there in 1927—into the major regional centre for north-western Queensland. Mt Isa has a population of more than 25 000 and was declared a city in 1968. However, big cities and the coast are a long way away, and when heavy rain falls it can cut the road and rail links with the rest of the country. Like those at Nhulunbuy, the people in Mt Isa can feel very isolated.

The mining boom has drawn many thousands of people north in recent years, the majority of them to new towns built by the mining companies. Most of these, like Nhulunbuy, have populations of less

than 5000; Mt Isa perhaps illustrates what some of them may become. The common experience is a very large population turnover, in fact so large that in many of the new towns people stay, on average, less than a year. The obvious conclusion is that most people who come to these towns would prefer to live somewhere else but come for a specific purpose, such as to earn and save more money than they could elsewhere.

The large population turnover, as well as indicating that people are not as happy in these remote settlements as they feel they would be elsewhere, also creates problems for the mining companies. Recruitment, transport to the settlements, and training can cost up to \$10 000 for

*'I wish it wasn't so difficult to visit other places.'*

each worker. Also a large turnover means that many workers are inexperienced in their jobs, so production efficiency is lower than it could be.

## **Ambitious project**

Anything that makes remote towns more pleasant to live in is obviously to the advantage of the people living there. Also, if people stay rather than go, this is to the advantage of the industries in the towns. In probably the most ambitious project in social science research so far undertaken by CSIRO, a group from the Division of Building Research is finding out what people's main likes and dislikes are about life in remote tropical communities. The information gathered is enabling the



Division to suggest ways to improve living conditions.

The project arose out of a tour by Mr Terry Brealey and Mr Ron Ballantyne, of the Division, through many of the remote communities in Western Australia in 1967. They set out to identify reasons why permanent residents were hard to attract, and produced a report describing the towns and suggesting research the Division might be able to do to help improve living conditions. The next step was the setting up in the Division, in 1971, of a Remote Communities Environment Unit—now the Built Environment Group—chaired by an Assistant Chief, Dr Walter Kauman. The research began in August of that year.



In the first stage the unit carried out surveys in the following six communities. They are a mixture: the object in choosing them was to pick a representative sample.

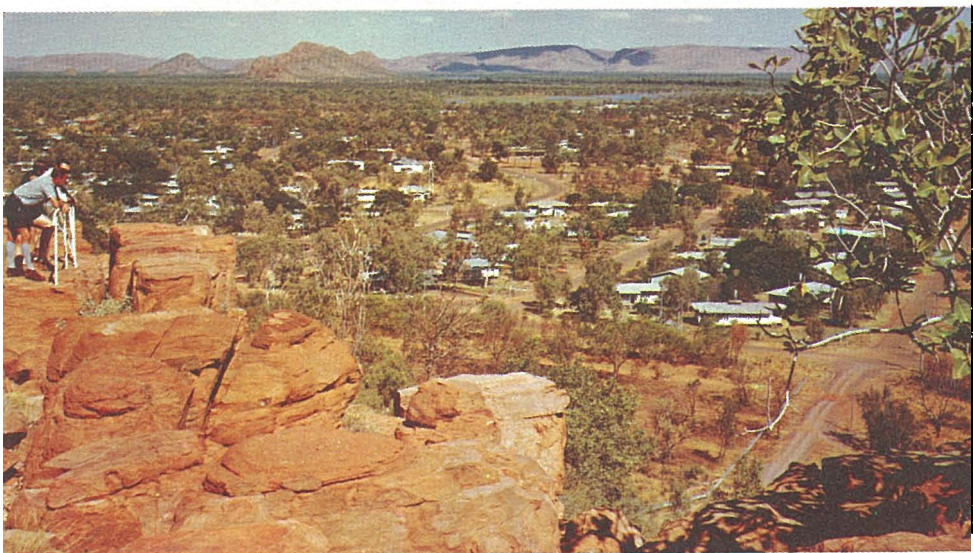
Newman is a new inland mining town.

Its population when the surveys were done was nearly 4000, with a male to female ratio of about three to one. More than two-thirds of the adults were unattached men. It is administered by the mining company.

Dampier also is a new company town, but it's on the coast and the activities are shipping and ore stockpiling and pelletizing. The population in 1971 was about 3500, of whom about 1000 were women and girls. Inland 23 km, another town, Karratha, has been built because of a lack of room to expand at Dampier. It houses non-company as well as company people, and accommodated 1027 males and 796 females in 1971.

Kununurra is a fairly new agricultural settlement and centre of the Ord River irrigation scheme. Its population in 1971 was less than 1500, including about 900 adults of whom about 24% were unattached men. The sex ratio is much more even there than in the new mining towns.

The Kimberley Research Station is a





## **Mt Isa.**

small settlement of government research people and their families near Kununurra.

Mt Isa is a long-established mining, commercial, and administrative centre. Its male population at the time of the surveys was about 14 200 and its female population about 11 100.

Katherine, 350 km down the Stuart Highway from Darwin, is a pastoral centre. Its abattoir handles about 30 000 cattle a year, road-freighted in from up to 1100 km away. The population in 1971 was about 1400 males and 1100 females.

The CSIRO team spent about a week and a half in each town during the second half of 1971. Mr Brealey, Mr John Thomson, and Dr Kauman knocked on doors and asked people to complete four questionnaires, while Mr Ted Coulter compiled descriptive 'profiles' of the towns. Single people living in hostels were left out of the initial surveys; they have been brought into the project this year. About 10% of households were included in all towns except Mt Isa, where the sample was about 1%.

## **The people**

The Sampling and Methodology Branch of the Australian Bureau of Statistics helped the researchers prepare their questionnaires. The first was designed to provide a broad picture of the residents of a town; it asked things like their age, marital status, level of schooling, occupation, wage level, number of children, the place they came from, and their reason for coming to the town. It also asked how long they had been in the town and how long they intended to stay.

In no town did more than half intend to stay permanently; 8% thought they would in Newman—this was the minimum figure—while 46%, the maximum, had this intention in Mt Isa and Katherine. Four out of five intended to leave Newman within 4 years and nearly half in Dampier were planning an equally short stay. On the other hand, four out of five in Mt Isa intended to stay there for at least another 4 years.

The figures on how long people had already been in the towns followed a similar pattern. In Newman, 71% of the survey sample had been there less than a year and only 2% 4 years or more. In Mt Isa, the town where the contrast is greatest, only 10% had been there less than a year and 68% had been there at least 4 years.

The second questionnaire dealt with houses and their surrounds—details such as what houses were made of, whether they had air-conditioning, and so on, rather than what their inhabitants thought of them. Like the bulk of the first questionnaire, it was after factual information rather than people's thoughts; that is, 'hard' rather than 'soft' data.

## **What the people think**

The third questionnaire, the one the researchers see as the most important, was 'soft'. It was designed to find out how people felt about living in each of the centres. It contained 11 half-sentences, which people were asked to complete in whatever ways they liked (see the box on page 7). The result was a great variety of comments on aspects of life in the towns. Assuming that residents referred to the matters most important to them, the responses give a broad picture of what people most like and dislike about living in the remote settlements.

When the answers were in, the research team worked out categories into which they could group the responses. Then, by sorting out the favourable and unfavourable comments, they were able to obtain a broad view of the residents' feelings about their communities. At Kununurra, 74% of comments were unfavourable, at Katherine 67%, at Mt Isa 63%, and at Newman 62%. The most popular town was Dampier (58%).

It is interesting that Newman and Dampier—new, small, company towns with many more men than women and very high population turnovers—attracted the highest proportions of favourable comments. In both cases this can be partly explained by the large number of favourable comments on housing and on the opportunity to earn well and save. At the Kimberley Research Station, Kununurra, and Katherine, most comments on housing were unfavourable and few people mentioned wages and savings. Wages and savings were mentioned frequently at Mt Isa, but housing attracted fewer favourable comments than in Newman and Dampier. Perhaps the fact that the people surveyed were from households rather than single quarters also had something to do with the relatively good scores of Newman and Dampier.

## **Complaints**

On the debit side of the ledger, a shortage of entertainment and recreation opportunities was a frequent complaint in all

**Mt Whaleback yields its ore to the workers of Newman.**

## **Kununurra.**

## **Dampier.**

centres, but less frequent in Mt Isa than in the smaller places. High temperatures and the cost of living were objected to everywhere. A feeling of isolation was mentioned often, but not as often in Katherine as in the other towns. The fact that Katherine is only 354 km by sealed road from Darwin may be the reason for that.

Shopping and commercial services were often mentioned unfavourably in all towns, but more than twice as often in Newman and Dampier as in Mt Isa. Clearly a bigger town can do better in these areas than a small one. In Mt Isa the most frequent complaint was about transportation, while this is well down the list for the other towns. Probably one reason is the flooding that sometimes cuts the town off by road and rail. However, the ability of an older and bigger town to satisfy needs that the smaller towns don't, thus reducing complaints about shopping, entertainment, and so on, may be just as important.

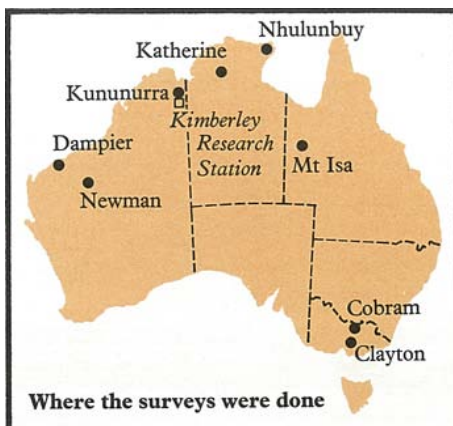
Educational opportunities drew unfavourable comment in all centres, but much more often in the smallest settlements, Kununurra and the Kimberley Research Station, than in the others.

The comments on social relationships divide up in an interesting way: all towns produced quite a lot on each side. Things mentioned included, on the credit side, a friendly atmosphere, a free-and-easy way of life, and getting to know people better in a small community. On the debit side, people referred to, among other things, the large number of single men, gossip, loneliness, boredom, and loss of friends through population turnover.

Social relationships were the most frequently mentioned desirable feature of life in Kununurra, Mt Isa, and Katherine. However, the number of unfavourable comments was more than half the number of favourable ones on this aspect in each of these towns—considerably more in the case of Katherine. The Kimberley Research Station and Newman produced more complaints than compliments in this category, and the division at Dampier was about even, slightly tilting to the favourable side. The balance seems to be least favourable when the community is new (as at Newman) or very small (as at the Kimberley Research Station).

### Priorities at home

The fourth questionnaire took the form of a parlour game. The researchers gave people the plan of a basic house, \$5000 in play money, and a list of things that



could be done to improve the house and their costs. The people were asked to show how they would choose to spend \$5000 on these things if the house was to be built for them in their community.

In all towns except Mt Isa, the option most often chosen was a rotary clothes hoist, and there it was the second choice behind an evaporative house-cooler. (The basic plan provided a double clothes line on cross arms.) Other frequently chosen improvements included floor finishes, carports, and exhaust fans.

The response to the questionnaire was so good—people obviously enjoyed participating—that Mr Brealey and his group are thinking of using similar games to find out people's priorities in other areas. People could be asked, for instance, to divide up part of a town's budget between things such as parks, footpaths, and tree-planting.

To see if people's attitudes to their lot would differ between the wet and dry seasons, the interviewers went back to Newman and Dampier during the next 'wet', in February 1972. A new 10% sample of the population was given the questionnaires. The results turned out to be very similar to those recorded during the dry.



*'The greatest difference between living here and living in a capital city is the limited choice of shops.'*

*'More attention should be paid to recreational and entertainment facilities.'*

### Differences down south

The next step was to see how much people's attitudes in non-remote, non-tropical communities differed. The first looked at was Cobram, a town of about 3500 in the Murray Irrigation Area and the centre for another 3000 people living in surrounding areas. The researchers thought the fact that the incomplete-statements questionnaire had elicited more unfavourable responses than favourable ones in each of the tropical communities might indicate that it was human nature to complain more often than express satisfaction. The figures for Cobram don't support this; 56% of all comments were favourable.

Also the pattern of responses differed greatly. For example, housing and economic considerations—major concerns in all the tropical centres—were very rarely commented on. The most common subject of complaint was the town's streets. Benefits mentioned most often were good social relationships, lack of pollution, and good work opportunities and on-the-job relationships. Problems of isolation and transportation worried few people, and there were very few complaints about the temperature.

The next area looked at was Clayton, an industrial suburb of Melbourne, with a population of about 16 200. Here the unfavourable comments (57%) outnumbered the favourable ones again. People's responses fell into a quite different pattern from those in the tropical settlements and at Cobram.

The category covering the biggest number of responses in Clayton is town planning; it includes things like distance to work, traffic density, and public-area beautification. Of all the comments, 11% were unfavourable ones in this category and 8% were favourable ones. No other subject brought forth so many responses on either side of the ledger. Pollution was the next most common subject of concern, while work opportunities and on-the-job relationships drew the next-best favourable rating.

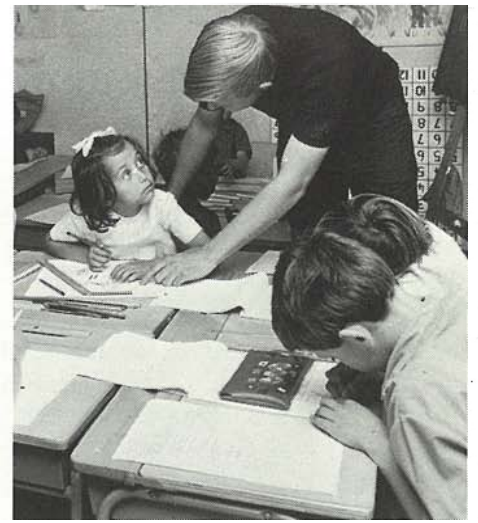
### The findings attract interest

The research done so far has given a broad idea of what people most like and





Cobram.



At school in Newman.

---

*'I am glad that there is a good primary school here for my kids, but I wonder about their future.'*

---

Shopping arcade at Dampier.



## Wants, likes, and dislikes

The questionnaire Mr Brealey's team used to find out how people felt about their living conditions read as follows:

'You are invited to co-operate with CSIRO in an experiment which is part of a larger study aimed at improving the quality of life in remote communities in Australia.

'The term "living conditions" has a broad range of meanings and can be interpreted in many ways by different people. The purpose of the following exercise is to discover what you consider are the most important aspects of living in this town. Your response will help to identify factors which should be examined in more detail and indicate the direction

which possible changes should take.

'Complete as many as you wish of the following statements in the way which you feel describes either existing living conditions here or any changes which you would like to see made.

1. The greatest difference between living here and living in a capital city is . . .
2. Living here would be . . . if it wasn't for . . .
3. More attention should be paid to . . .
4. There is too much emphasis on . . .
5. Living here is like . . .

6. I'm glad that . . .

7. I wish that it wasn't so . . .

8. I would rather live . . .

9. Living here I find that I . . .

10. The aspect of living conditions here which I think most important is . . .

11. I came here because . . .

'If you have any further comments you would like to make on your living conditions please add them here, on the back of any of these pages, or attach extra sheets as you wish.

'Any comments you have about this study would be very welcome.'



dislike about the places they live in, and already the information is finding uses. For example, Newman is to be expanded soon, and the planner for the job has asked the CSIRO group's advice on the type of accommodation to be provided. A big house-building company has asked for details of responses to the home-improvement questionnaire.

---

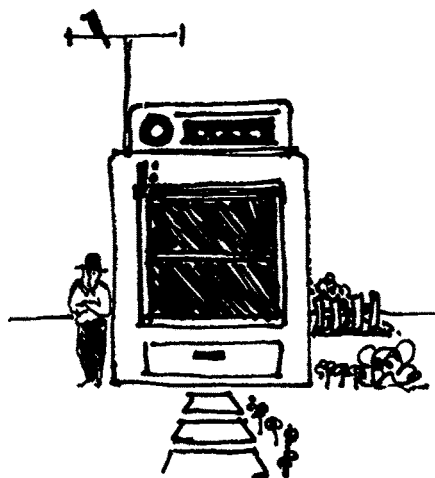
*'Living here is like living in an oven sometimes.'*

---

Last year Mr Brealey was asked to take part in a workshop held in Darwin by the Cities Commission on planning for a population influx to the Alligator Rivers region of the Northern Territory, the area where large uranium discoveries have been made. The remote-communities survey results suggest that people are happier with things like educational opportunities, shops, entertainment facilities, and social relationships in bigger rather than smaller towns. Mr Brealey recommended, because of this, that only one township should be built in the region rather than separate settlements at each uranium find. Although this would mean some people had to travel perhaps 50 km to work, he believes the survey shows that the advantages of a larger town outweigh this drawback.

This year the group has begun looking in more detail at aspects of life in remote northern settlements that the earlier work showed were important to the people. They have chosen Dampier and Nhulunbuy for the research, which they expect will involve six visits to each town over 3 years. The towns are about the same size and they're both on the coast, so they have major similarities. They also have interesting differences, including the fact that Nhulunbuy's present form corresponds to the initial plan while today's Dampier has evolved from a town designed for a smaller throughput of ore and a smaller population. Also, Dampier is 5 years older; a comparison of population turnovers in the two towns over the 3 years of the study should throw useful light on the way population movement changes as towns grow older.

Mr Brealey, Mr Thomson, and two new interviewers, Mrs Kerry Thomas and Miss Jill Preston, visited both places in March this year. At Nhulunbuy they gathered the types of 'hard' information



Miss Jill Preston out interviewing.



that had been collected in the other towns and used the same incomplete-statements questionnaire to find out likes and dislikes. These were assessed at Dampier again, too, because the town had grown and its population changed since 1971.

#### Pack of cards

In both towns they distributed a pack of 156 cards to 100 households. Each card had a statement on it—such as 'we rarely go visiting', 'all home allotments should be fenced', and 'street lighting is poor'—and people were asked to put these in piles according to whether they strongly agreed, agreed, disagreed, or strongly disagreed. Each card had its opposite in the pack, for example: 'we often go visiting'. The object was to delve more deeply into attitudes on entertainment and recreation, shopping, community services, social interaction, and town planning. Results were still to be collated when we went to press.

The interviewers also contacted people living singly, for the first time in the project. Because it was hard to catch them at



A Mt Isa house equipped with solar water-heating.

A company house at Nhulunbuy.

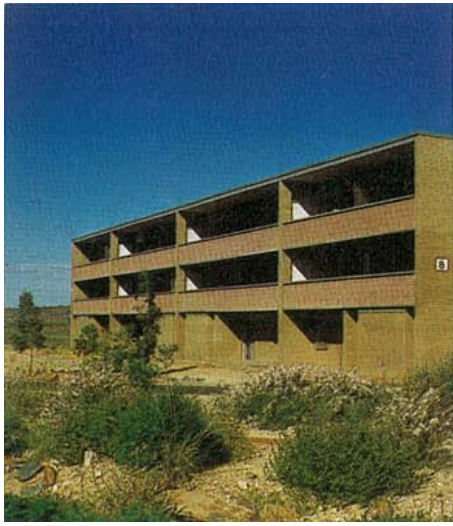


home—there's a lot of shift work and nobody is left at home to leave messages with—the samples were restricted to 30 in each town. They were given the personal-particulars questionnaire and the incomplete-statements one; their responses should give an idea of the attitudes of this large section of the population of many towns.

Also contacted for the first time were school-children. The CSIRO team asked about 100 in each town's high school to write 20 short statements describing their feelings about living in their towns. The responses will be grouped in favourable and unfavourable categories and should provide further insight into the communities' likes and dislikes.

Just as this year's Nhulunbuy and Dampier research program has been based on the results of the earlier surveys, future research in the project will be planned after this year's findings have been analysed; it is very much a step-by-step thing. Already a great deal of information has been gathered about remote towns and their people, and what the people





**Company flats Dampier.**



**A Kununurra house-on-stilts.**

---

*'There is too much emphasis on work and not enough on family life.'*

*'I came here because of the good housing and the opportunity to save money.'*

---

**A tumbler unloads iron ore from rail trucks at Dampier.**



like and dislike about living there. As the project develops the information should become increasingly specific and detailed.

Obviously planners won't be able to use the data to create perfect environments; if people don't like being a long way from Perth, for instance, there's nothing planners can do to help. However, the way a town is built and the facilities it provides are very important. The information being gathered will help planners satisfy the needs and wants of people in hot, remote communities.

#### **More about the topic**

Devising the maximum merit of living in remote communities. T. B. Brealey. *Architecture in Australia*, 1974, 63 (in press).

Mining towns are for people. T. B. Brealey. *Search*, 1974, 5, 54-9.

Living in remote communities in tropical Australia. I. Exploratory study. T. B. Brealey. *CSIRO Division of Building Research Report TB.27-1*, 1972.

'Living Way-Out.' (CSIRO Division of Building Research: Melbourne 1972.)



**At work in Katherine's abattoir.**