

PROGRAMME SYNOPSIS

S26-/8

Title: RESOURCES FOR A CITY

Proj. No.: 00525/1008

VTR No.: VTM/6HT/71354

Duration: 24'30"

Monochrome

Production by: DAVID JACKSON

In this programme Prof. Ian Gass of the Earth Science Department at the Open University examines the building materials available to the new city of Milton Keynes and investigates the supply of resources. He talks to David Jamieson and Michael Lukey of the Milton Keynes Development Corporation, Mr. Drown of London Brick Company, Dr. Ray of Tunnel Cement and Mr. Hudson of Amalgamated Roadstone.

In particular he looks at the composition of the various layers making up the roads in Milton Keynes and comments on the different properties of the materials required for sub-base, road base and wearing course.

In the second part of the programme, Patricia McCurry, Research Assistant in the Department of Earth Sciences, demonstrates the PSV, AAV, and AIV tests carried out on road aggregate, and illustrates several important properties of surface dressing.

The programme then looks at the way bricks are manufactured and why the Oxford Clay is such a valuable raw material for brick making. This subject is treated in greater depth in a 36' film called "Making Bricks" which will be shown at the Open University Summer School for the Earth Resources course, S26-.

DJ/CF  
5.4.74

Title: Resources for a city.

CU S26-/08

Tape No. 6HT/71354

Project No. 00525/1008

Producer: David Jackson.

O.U. film no.

Contributors: Ian Gass  
David Jamieson.  
Michael Lukey.  
Michael Drown.  
Michael Ray  
Jack Hudson  
Barry Buckman.  
Patricia McCurry.

Date Recorded. 22.3.1974

1st TX. 18.5.74

Form VTR

Duration 24'29"

Class nos. 691

Summary: The programme looks at the building materials available to the new city of Milton Keynes and investigates the supply of resources.

| Seq. | Time. | Footage. | Sequence List.                                                                                                                                                                                                        | Sound Cue    |
|------|-------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 1.   | 1'07" | 18       | Ian Gass introduces the programme which looks at the way different construction materials are combined to build the new city of Milton Keynes.<br>Shot of map of Milton Keynes area. The new city boundary is marked. | 711.43094257 |
|      | 1'55" | 30       | Animated model of Milton Keynes shows patterns of development for the next 10 years.<br>Commentary by Ian Gass lists the materials which will be in demand at each stage of growth.                                   |              |
|      | 3'00" | 46       | Shot of geological map of southern England. Milton Keynes is marked. Gass points out likely sources for raw materials for building in Milton Keynes.                                                                  |              |
|      | 3'38" | 56       | David Jamieson, Milton Keynes Engineering Dept. Manager, gives reasons for choosing the site of Milton Keynes. Proximity of raw materials for building was not a factor.                                              |              |
|      | 4'04" | 62       | Jamieson explains why raw material considerations were secondary in reaching a siting decision.                                                                                                                       |              |
|      | 5'57" | 89       | Michael Lukey, Milton Keynes Materials Engineer, David Jamieson and Michael Drown, London Brick Co., discuss the demand for bricks in Milton Keynes.                                                                  | 620.142      |

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## PROGRAMME SEQUENCE LIST

Continuation

| Seq. | Time   | Footage | Sequence List                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Sound Cue                         |
|------|--------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
|      | 6'50"  | 102     | Dr. Michael Ray of Tunnel Cement Ltd. and Ian Gass discuss the demand for cement in Milton Keynes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 620.135                           |
|      | 7'50"  | 116     | Jack Hudson, Amalgamated Roadstone Ltd., and Ian Gass discuss demand for local aggregate (for concrete production) by Milton Keynes Development Corp.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 620.139                           |
|      | 8'59"  | 129     | Michael Lukey discusses sources, other than local, which are used to obtain aggregate by Milton Keynes. He points these out on his geological map of southern England.                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                   |
| 1.   | 13'17" | 187     | Ian Gass on a road construction site in Milton Keynes. He examines the layers which go into the construction of the road. Shots of each stage of the road building. Gass discusses the materials being used. Sequence is interspersed with commentary by M. Lukey, who points out, on his geological map, sources for the materials being used. Shots of limestone aggregate being quarried. More shots of road being built. Barry Buckman, Amalgamated Roadstone Ltd., comments on the properties of the aggregate and asphalt surface dressing materials. More shots of road being built with commentary by Gass. | 625.8<br>...it, Pat McCurry.      |
| 2.   | 14'00" | 196     | Pat McCurry explains the need for adding aggregate to asphalt for the surface dressing of the road. She lists the properties required of a good surface dressing. It must resist abrasion, impact, maintain good friction contact. (PSV, AAV, and AIV)                                                                                                                                                                                                                                                                                                                                                              | The asphalt layer...<br>625.80724 |
|      | 19'26" | 262     | Shots of the road laboratory at Abington, Berks. PSV, AAV and ASV tests are carried out on road surface aggregate samples here. Commentary by Pat McCurry. She shows two specimens after an abrasion test. Shots of a frictional contact test in process. (PSV test) Comment by Pat McCurry. Shots of another abrasion test in process. Shots of an AIV (aggregate impact value) test being conducted. Commentary by Pat McCurry.                                                                                                                                                                                   | ...look at bricks.                |

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## PROGRAMME SEQUENCE LIST

Continuation

| Seq. | Time   | Footage | Sequence List                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Sound Cue                              |
|------|--------|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| 3.   | 21'40" | 287     | <p>Film shots of London Brick Company's clay pit near Bedford. Commentary by Pat McCurry discusses the geological origin of the clay and then the digging process.</p> <p>Shots of clay being ground down in a grinding machine. Shots of resultant powdered clay going into brick presses.</p> <p>Shots of green bricks rolling off the assembly line and being stacked. Commentary by Pat McCurry lists the desirable qualities of the bricks made from local clay.</p> | <p>..This is the...</p> <p>666.737</p> |
|      | 24'29" | 318     | <p>Shots of bricks being taken to kilns for firing. Bricks are loaded into kilns and sealed in. Commentary by Pat McCurry explains the firing process. More shots of the firing process. Shots of finished bricks being transported away by rail. Credits over.</p>                                                                                                                                                                                                       |                                        |
|      |        |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |