Final Script as recorded 21/1(25).9

BALLYMUN DUBBING SCRIPT L(1972)

Reel 1.

1. LS O'Connell St. area
2. HA/LS Liffey, towards Halfpenny. bridge.
3. LS Suburbs. Trees in fg.
4. MLS Housing estate. Car turns corner to r
5. MS Private flats. Man fg
6. MS Similar private flats
7. LS Estate Mountains bg
8. HA Clustered suburban roofs
9. LS Trees Kilbarrack houses
10. TELE Summerhill ~~xxxfxx~~ area ~~xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx~~
11. MLS People cross O'Connell st.
12. MS Crowded street.
13. LS Pan r on demolition area
14. MLS People on steps of houses
15. LS Pan on Georgian houses to demolished area
16. MS Three empty windows
17. LS Busy corner. Poster on wall.
18. LS Flat blocks. Ballybough
19. MS Boy rounds corner, House estate
20. LS Block of flats. Railings
21. LS Three blocks of flats

Dublin, the capital [redacted] of Ireland is small and compact, by comparison with other capital cities. It lies on the sea, and including its suburbs, the present population is over 700,000.

Most of the population of Dublin live in the suburban ring, close to the city centre, others along the shores of Dublin bay, and even out to the slopes of the mountains to the South.

Dublin is expanding fast, and it's estimated that before the end of the century, the city and its environs, will have grown to a population of over one million people. In such a city, a rapidly expanding population, presents special problems, among them, overcrowding of existing houses. (cue) , in course of time, too, the older houses become unfit for habitation.

With industrial and economic growth, less and less space is available for new housing schemes in central areas.

The ~~standard~~ solution had been, for the city Corporation to provide housing estates by traditional methods, with (cue) blocks of flats in central city areas and houses in the outer suburban ring → where space is available

22. Pan r on garden on corner

23. MS Car r past green in estate

24. LS Flat blocks. Pan to chalets

25. LS Two cars pass chalets l

26. LS Clustered houses and rearof shops

27 LS Suburban housing estate
Pan l to across road

28. MLS Standard building

29. MS three men picks+shovels

30. MS Man on roof with slates

31. MS Three men unload scoop

32. MS Man on scaffold in doorway

33. Worker up ladder with slates

34. LA BALLYMUN Twin towers

35. Tele. Tower thro trees

where space is available. Whole new estates were being created, but even this could not keep up with the constantly growing demand.

and while waiting to be housed, people have to live where they can, sometimes in what they hope will be only temporary accommodation. (cue) The problem of a constantly expanding population was there, and was being tackled.

By using traditional methods, houses could not be provided fast enough - an big scheme might take over 4 years before a single house would be ready for occupation. It was necessary to find a faster method of providing houses, a method which would not interfere with, or draw off, the resources of the traditional building industry which in the early sixties was already committed to other essential public building projects. A remedy on a massive scale had to be found. Something dramatic had to be done. (cue) The answer was the Ballymun Housing Project, Then A Europe's biggest industrialised housing contract, and entailing the largest programme of civil engineering and development works, undertaken for an Irish local authority housing estate.

BRISK

Shot	Secs	Commentary
36. LS Kids play in LC area Tower bg	15	With a population to-day of about 13,000 larger than most provincial towns in Ireland, the Ballymun Housing Project represents a revolutionary departure from all previous local authority housing ~~schemes~~ schemes,
37. CS Trowel on stone	3½	(cue) In December 1968
38. CS Blaney stoops, trowels	8½	Mr Neil Blaney then Min. for Agriculture, placed the last prefabricated unit in
39. CW Workers	2½	position. The Ballymun scheme was
40. CS Stone starts to rise.	5½	initiated by Mr Blaney in 1964 when, as Minister for Local Government, he began
41. MS Group of VIP's	4	discussions with the Dublin Corporation on ways of expanding their housing
42. MS Tilt up slab reveals top	6	programmes, by the use of industrialised building methods. ~~XXXXXXXXXXXXXXXXXXXXXX~~
43. CW Group. Blaney, Quirk, Boland.	4½	~~XXXXXXXXXXXXXXXX~~ ~~The~~ Corporation members + officials, having visited the Continent at the Minister's suggestion,
44. LS Stone swings in over roof	8	~~and~~ studied these industrialised building methods at a variety of centres.
45. LSfrom roof. Pan on centre area.	16	As a result of this study, the Corporation requested the Minister to make arrangements for a ~~similar~~ large scheme based on such methods in ~~Ireland~~ Dublin. The Min. invited, by public advertisment, at home and abroad, proposals for the provision of some 3,000 dwellings, by industrialised methods on
46. LS Three storey Walk ups		the basis of an outline-brief proposed by his department. The scheme was to
47. from roof. LC area, some constr.		include high and low rise dwellings,

SLOWISH

Blisk again

48. VLS Spine block. Road and roundabout in mfg. 8

49. LS View under trees of W.Up 5

50. LS Meeting around table 11½

51. LS View under canopy of tower. 6

52. LA Dramatic Looking up block

53. LS LC area Woman + 2 children

54. CS Outline plan on wall 6

55. LS Pan r on meeting 15

56. LS Caravan in field 15

57. CS Sign "CHS" 5

58. CS Plans on wall 3

V. Blisk

central heating in all dwellings, and a high standard of lay out, including landscaping. Pricing was to be competitive with traditional methods of building, and guide prices were to be submitted by proposers. From a shortened list of proposers, a consortium of Messrs. John Sisk and Son, of Dublin and Cubitts and Hayden of the United Kingdom, were selected as contractors. The building systems proposed were those of Balency et Schuhl of France, ~~which had been inspected and approved by the Corporation~~ for the flats ~~high and low rise flats~~ and Lowton-Cubitt ~~of Britain~~ for the two-storey houses.

The National Building Agency, a specialised organisation, operating under the Minister for Local Government, was already engaged in house building activities, which were supplementary to the normal housing programme of local authorities. The Agency managed the contract, which the Min. had negotiated on behalf of the Corporation.

The ~~N.B.A.~~ agency engaged consultants in Surveying, Civil and Structural Engineering, Mechanical and Electrical Engineering, to supplement its own professional and administrative resources, for the purpose of contract management. This team worked closely throughout, with the builders, as only outline drawings were prepared at the time of contract.

59. Group in field, plans.

60. Pan r on field.

61. Dramatic angle on tower L

62. Dramatic angle on tower R

63LS Dramatic angle on tower L

64. MODEL Main road through complete model spine

65. MODEL Hand shows areas

66. MODEL Hand shows 5 LC areas

67. MS Group in field

10

15

14

The method of integration, design, and construction, required the building consortium to prepare the thousands of detailed drawings essential to the project, with related costings, and submit them for ~~N.B.A.'s~~ agency approval. And so in ~~February~~ 1964 a suitable site was made available to the Corporation, namely the lands of the former Agricultural College of the National University. On this land ~~was~~ were to rise over 3,000 dwellings for an estimated population of 12,000 people. These would be made up of the Balency low and high rise flats and the Lowton Cubitt two-storey houses. To be built in all were 2,569 flats, 400 2 storey houses, and 52 special one-roomed flats.

The flats were to be distributed in 53 eight storey blocks along spine roads, and 37 four-storey walk-up blocks. These low blocks were to encircle 3 of the 5 Lowton Cubitt two-storey housing areas. ~~The Contract~~ The Contract was signed in February 1965, and its ~~The~~ terms ~~of the contract~~ provided that savings made against ~~the~~ a target price would be shared with the clients, Dublin Corporation, and any excess on a ceiling would be borne by the contractors. The incentives thus provided for client-contractor co-operation have paid off handsomely in Ballymun.

V. Blisk

END OF REEL I.

68. LS Site office 3
69. Pan r on site office I2

A large prefabricated office for joint-planning and administration was provided near the site.

70. Excavator scoops earth I5

The Ballymun scheme is under way. The existing facilities in the area, were inadequate, to cope with such a large new housing development, and a new main-sewerage-disposal-network had to be laid.

7I. Chimney. Tilt to power house 6¾

The central boiler plant has a capacity to serve the 2,569 flats in the contract, and future extensions. There are three self contained oil-fired boilers in the plant.

72. Interior of power house 7½

73. CS Pan tilt along pipes 7½

The water is pumped direct from the central reservoir, with a capacity of 200, 000 gallons to the individual blocks, thus eliminating the need for large storage tanks on the roofs, and a multiplicity of booster pumps.

74. MS Pipes in trench 3½

75. Factory gate area 4

The Balancy factory, where the precast concrete units are cast in moulds, is the centre piece of the whole operation. The factory itself which is 600 ft long, 64 ft wide, and 20 ft high, has a production capacity of a thousand dwellings a year, with a stockyard capacity for a months output.

76. HA/LS Pan on factory roof and stockpile I5

77. HA/LS Two cranes in stockpile 4½

The mobile tower-cranes, for work in the factory and on the site, were Irish built by Liebherr of Killarney.

78. LS Interior Balency fact 8

79. LS Workers on complete technical block

80. LA Vertical Mould. Cement forcer moves R. 6½

8I. MLS Bed mould screeded Stacker truck passes fg 8½

82. HA/LS Vertical mould opens 8 8

83. CS Helmeted worker. Tilt to hand on hook 7.

84. LS Wall lifted from mould I6.

85. LA Looking up thro mould

86. HA/LS Crane lifts wall section through roof.6.

87. Window raised from pile

88. Two workers place window clamp in position 6.

89. CS. Tilt up to hands tightening screws 7½

90. CS "Retarder" container I¾

9I. Brush dipped in Ret. 2¾

92. MS. Worker paints mould

In the factory, production of the precast units, cast in the different moulds, is in full swing. There are thirty three Balency moulds, in all, in the factory, ten special moulds, six double vertical moulds, making I2 in all, and

AWI) I7 horizontal or bed moulds which make all the exterior walls of the flats.

The vertical battery of moulds are used for the partition panels.

(Cue on tilt) The hot concrete is injected from the bottom, to prevent segregation, and the formation of bubbles, and both sides of the resulting panel are sufficiently smooth to permit the direct application of either paint or paper. The partition panels contain all necessary electric wiring conduits.

The units are lifted out through the roof, which is designed with sliding panels, and are placed in the stockyard for further curing. A large reserve is built up, so that when erection of the flats is under way, a continuous supply of prefabricated units is available. Let's examine indetail the making of these window units.

To begin with, a timber window frame is placed on a bed-mould, and put on top of it, is a steel jig to clamp it in position.

A film of concrete surface retarder is brushed on to the mould.

93. C.S. Mould side closes L I.
94. CS. Mould side closes R.I
95. CS Surface. Shovel dumps agg. mix in fg.
96. Ms Worker trowels out aggregate while shovel puts in more
97. CS Worker (Whacker)
98. CS Whacker vibrator 8
99. MS White window mortar spread on mould edge I9
I00. CS Cement pours down 3
I0I. MLS 3 fix mesh in mould I0
I02. CS Polystyrene sheet 3½
I03. MS Polys. cut, placed
I04. BCU Pliers cuts wire 4
I05. MS. Mesh tied. Man exits
I06. C.S. Cement down chute
I06 A. C.S. Mould closing
I07. HA/LS Bal factory
I08. Smoothing bed mould 4.
I09. MS Worker operates heating hood
II0. CS Mould closes
III. H/A/LS Static L.C. area

The mould bed is covered with a one inch layer of selected coloured aggregate and cement which is mechanically vibrated. The retarder prevents the setting of the cement film, on the surfaces of the pebbles, in contact with the mould bed.

Next the white window surround mix is put on. This is of thick white mortar and gives us the white window finish which is characteristic of Ballymun.

A layer of pre-heated dense concrete is now added, bringing the total depth of concrete so far to 3 inches.

Within this is placed light mesh reinforcement and fixing ties.

A one inch layer of expanded polystyrene insulation is now suitably cut and laid.

The main reinforcing bars are then placed. These terminate as lifting hooks.

On top of all this is placed a further five inches of dense concrete.

After partial setting the exposed concrete is disc polished, to provide a smooth inner wall surface, and the curing is resumed. ~~While we wait for this to be completed~~

A heating hood is lowered over the mould, for rapid curing of the concrete.

While we wait for this to be completed, let us take a look at the Lowton Cubitt two story houses, another part of the

II2. Int. LC. Factory
II3. Gang nail hammered 3½
I4. LS Bed moved, operator 3½
II5. C.S. Operator 4
II6. CS. Press makes joint I4
II7. LS Interior LC Factory 5
II8 MLS Workers lay felt on roof 5
II9. LS Workers with tiles on roof fg
I20. MLS Side held up to frame of house I0¾
I2I. LS workers in roof with slates. Tower bg
I22. LC skeleton plus washing line
I23. HA/LS Pan over LC area I3.
I24. Roof slides back
I25. CS. Hand spins lock
I26. MS. Side pulled out
I27. MS Crane beside roof edge
I28. LS. Mould rising vertical
I29. Crane driver in cab
I30. LS Wall sectionclears
I3I. Worker looks up
I32. BCS. Surface of stone
I33. MLS. Worker fixes bar on top of stone
I34. Water jet on stone

overall Ballymun project.]
(cue) In the joinery shop the timber roof-trusses for the two storey houses are being fabricated, by the gang nailing machine.]
The gang nail system is based on the simultaneous application by hydraulic pressure of special connector-plates, to both sides of the joint.]
Hand nailing, stapleing and glueing, are completely eliminated.]

In the Lowton Cubitt system the roof and upper floor section are first fixed upon a steel frame thus giving a clear, dry, working area.]

The external cladding-panels which are also made in the factory are light enough to be easily guided into position.]

As soon as the houses were completed they were instantly made available to the public.]
In all, 400 Lowton Cubitt houses were built, each with five rooms, and centrally heated by gas warm-air units.]
Back in the Balency factory, after three or four hours curing our window stone is ready to be removed from the mould.]
The crane stands by to hoist the stone from the upraised mould.]

The stone is taken out and racked vertically in the wash bay and is sprayed with a jet of water which washes the cement film from the coloured aggregate.] This film had remained unset, due to contact with the retarding agent, which

I34 contd.

I35. BCU. Water jet reveals texture

I36. MS Water stops 7

I37. Worker finishes stone with rotary brush 9½

I37 A. Shot of stockyard.

I38. MS. Tilt down with stone lowered on trailer 8

I39 HA/LS Stockyard

I40. Truck out gate passes r.26

I4I. Pan R on trailer static IO

I42. Two basement units in and an other swings IO½

I43. CS. Wall comes to rest beside feet.

I44 C.S. Worker bolts rod to wall.

I45. HA/MS Two work on wall unit. 6½

I46. MS. Stair section lowers

I47. MLS Stair unit in factory 25

I48. LS CRane lowers section to join other 5

I49. Sections join

I50. MS. Empty truck passes 1 7.

I5I. LS Installing tech. block in battens. Two workers.

had been brushed on the surface of the mould-bed at the beginning of the process. The colour and relief of the aggregate-pebbles now become apparent, and, at a distance, this gives the tinted rough external texture which you will recognise in the finished flats. The stone is again lifted, this time to the stockyard for final setting.

The finished stones are loaded on the trailer, and transported from the stockyard to the site.

(Music)

The prefabricated nature of the process is clear, as the walls are brought into position, and the props are bolted on to anchor them, until the floor is poured into position overhead.

The staircase unit is made in one of the ten special moulds in the Balency factory. Though complex in structure, it is cast in one complete unit, as also are the technical services block, and balconies. All the moulds are of steel and ~~very precisely made~~ are precision built, so that thousands of castings can be made during the job.

An integral part of the success of the Ballymun scheme, was the magnificent skills of the Irish workers and technicians who had to master from scratch a complete new building technique.

The technical block installed here in the foreground, with its hollow formation,

I52. MS Waste pipe fitted in T.B. mould in factory 6½

I53. CS. Hands push pipes down I6

I54. Plumber glues pipes down I6

I55. CS Top of T.B. showing electric points

I56. LS Final steel section pulled 8½

I57. CS Cement pours on T.B. 9½

I58. MS Concrete poured on T.B.

I59. Ext T.B. in position on site 4

I60. Model of W.C. side

I6I. Model from kitchen side

I62. Pipe placed on top of T.B.

I63. Int. Pipe in wall press

I64. Tilt down from vent to handbasin. 5.

End of Reel 2.

~~hollow formation~~, houses all the plumbing, water supply, gas pipe-work, and the vertical heating mains and the mechanical ventilation ductwork.

The steel bridges, bolted to the top of the mould, hold the pipes and electrical connections in position during casting.

A preheated concrete mix is poured in directly from the skip of the truck.

A poker vibrator is used for compaction, and the concrete is then levelled off.

Each of the flats in the project, has one such technical block, forming the wall between the kitchen and bathroom, as seen here in the models, and the connections for the various sanitary fittings can be quickly and easily made.

This technical block, which is a completely industrialised unit, reduces second-fixing plumbing, ventilation, and heating, and thus is a time saver.

I65. Model of grid.

Let's now take a look at a model, featuring the heating and electric grid. Complementary to the technical block, is the heating pipework and electric conduit installation, here being hoisted into position, together with the floor reinforcement. These assemblies, which are prefabricated on the ground beforehand, speed up the whole operation.

I66. LA Grid swings in air I4

I67. LS Roof level, grid in i5

The total complex is worth studying as a time saving device.

Here we see clearly how the shuttering board, facilitates locating the grid connections.

I68. Crane jib.

I69. LS Grid guided on by men 7

I70. CS. Man coils wire. Tilt 5

I7I. Upper layer of wire attached to grid. MS 7

When the assembly is in position, the vertical and horizontal services are connected, and drops made to switch points.

I72. CS Worker clips wire

The top steel is secured

I73. Ms do and rises

I74. Welding. Tilt to goggles 7

and finally the heating pipes are welded.

I75. ANIMATION of hook bend

Now we study in animation a unique feature of the Balency building method. This is the "in situ" floor casting. Floor tie-bars are placed through the lifting hooks of the wall units, which are bent over. This ties-in the vertical wall units with the in situ flooring, when the floor concrete is poured. And so the precast units and the in-situ floor become a monolithic structure.

I78. CS Compressed air blown on grid. Tilt up I9

The Operative with the Air-Hose

~~The operative with the air hose~~ is performing a cleaning operation, blowing compressed air to clean the ceiling before spray painting.

I79. LS Cement bucket lowers 6

Here we see the floor concrete being poured.

I80. CS Man in helmet

I81 MS Concrete released and moved to camera

I82. MS Concrete spread, and vibrated

The concrete is spread, consolidated by the vibrator, and then roughly screeded off.

I83. MLS Men release concrete on to grid. I3

I84. LS Concrete levelled. Tilt to grid in fg I2.

I85. CS Mouth of bucket empties and away I7

When the "in situ" flooring is partially set a rotary-power-float ~~prepares the floor~~ (prepares the floor) and leaves a fine finish ~~for the flooring~~, on which later a sound-insulating, felt-backed vinyl is laid. ~~This vinyl~~ (which) is both washable and decorative.

I86. CS Rotary power float 3½

I87. MS Man operates float

I88. Animation of wall joining and pinning

We have already shown you in animation, the interlocking of walls and "in situ" floors. Here we show you, <u>again in animation</u>, the joining of the wall-units themselves, by the use of steel reinforcements.

I89. HA/LS Pan r from towers and road to block and spine behind I3½

And so the Ballymun project takes shape, as the tower blocks rise above the Dublin skyline. In some of the blocks the people are already in their homes, while the interior finishing goes ahead in more of the flats.

I90. Ms Painter sprays wall
I9I. CS Spray gun clears
I92 Corner trowelled off
I93. Edge of wall smoothed
I94. Electrician fits pipe
I95. Tilt down W.C. unit
I96. MLS Men on roof. Pan to liftx swinging on crane 8

The eight storey spine blocks and the fifteen storey towers all have lifts.

I97. CS Crane hook
I98. CS Edge lining up with runner

These were the first prefabricated lifts to be installed in Ireland. The lift car is seen here centering on the lift guides.

I99. MS Workers guide lift I3

In fact, some 73 lifts in all were installed in Ballymun.

200. LS. Lift motor unit on crane 8

The lift motor unit and switch gear is brought in, in one piece, on a preformed floor. This avoids the irksome erection, on sites, of lift motor units in the traditional way.

20I. MS Worker directs crane (off)
202. CS Lift shaft. Tilt to motor
203. MS. Motor in position 6½
204. HA/LS Roundabout 8

The existing Ballymun road is a major through traffic route.

2o5. Roundabout 5½

It has now a roundabout junction and a multiple pedestrian underpass.

206 MIX
HA/LS Completed roundabout
Pan to underpass 5½

Eight smaller underpasses also contribute to road safety, and two of them serve the town and shopping centre.

207. MS. Two women walk towards underpass 4
208 HA/LS L.C. play area
209. MLS Stockade
2I0. School, curate's house
2II. LA Twirl fx on tiwer

But what are buildings without people

2I2. INT. Flat. Couple seated II

The success of Ballymun in the final analysis will be judged by the happiness and wellbeing of the families living there.

2I2 contd.
2I3. Int. Pan r kids in bedroom I3½
2I4 EXT. L.C houses. Kids play 8
2I5. INT. bedroom Pan r IO
2I6. Int. Tilt down stairs
2I7. MS Kitchen. Kettle filled
2I8. MS Young girl in lounge
2I9. MS. Two girls at tea
2IO.HA/LS Shopping area. Pan R to roundabout
22I. Track around roundabout I4
222. Women in silhouette thro pass
223. Three up steps to shop area
224. Pan r from aircraft to car park 9½
225. Track past flats to reveal spine
226 HA/LS Roundabout. Pan to central area.
227. LS Field. Flat blocks in distance. End supers.

families living there. In any event they are away to a good start in their attractive flats and homes.

(cue) In this two storey house we see a typical family at home in Ballymun. These young people are inheriting all the amenities of this modern age. They live in a community where the basic facilities for their rearing and education are close at hand. Their homes are centrally heated and they have piped television.

The Ballymun Project was finished on time and the outcome from a cost point of view is regarded as highly satisfactory.

In all the flats and houses the people are in their homes and the largest industrial building contract in Europe is completed. The pioneer work at Ballymun has since been followed up on an even greater scale in Great Britain where the skills and expertise developed at Ballymun have been made freely available in the interests of housing for the people.

Ballymun began as an idea, a dramatic and courageous one to advance the housing drive of Dublin Corporation. (cue) It is now a reality as the housing developments of the Corporation go forward to meet the demands of an expanding community.

End of Reel 3. Final Reel.