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Title : Science course unit 26 (Clock title: Earth history) Contributors : <u>M.J. Pentz</u> (introduction) <u>R.C.L. Wilson</u>. CU S100/26 Tape No. 6LT/10011 Project No. 00520/1126 Date Recorded 22-5-70

Form VTR 552.03 552.5

1ST TX: 25.7.71

Producer: Nat Taylor.

Sound Cue Sequence List Time Footage Seq. Pentz introduces the unit. He has in front of If your idea him samples of several types of rocks. He points out some of the features found in the samples and poses some questions about fossils. 1331 R.C.L. Wilson on Norfolk coast beach digging up samples of the sand sediment. Wilson points out a spiral pattern in the sample of wet sand, left by some small animal feeding on the organic matter. 1. 2112 Wilson continues to dig the sand in search for animal life. He finds a worm and holds it to the camera. 552.50723 2 149" Wilson digs in salt marsh. He digs up a spade full of the wet sediment for examination. Several small burrows are visible (made by small crustaceans). Wilson points out a small bivalve animal in the sediment. B'37" just see moving. Wilson with chart of the beach on which he dug Well these burroughs his samples. He points out the areas in which he found his samples. 3159" Wilson discusses the similarity of the patterns 2. found in his samples and those of the rock samples shown by M. J. Pentz above. 5'07" Shots of Wilson traversing the beach area again. He takes samples of different sediment types as 552.50723 he comes accross them. Surface features and animal life are pointed out. 7'05" Shot of Wilson on sand dunes. He explains how they were formed. 8:05"

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PROGRAMME SEQUENCE LIST

	1			Continuation
Seq.	Time	Footage	Sequence List	Sound Cue
2.	8 1 2 5 "		Shot of Wilson in studio. He points out places where his specimen were collected on a cross section diagram of the beach area.	to the lab.
3.	10'49"		Wilson in the laboratory. He shows and explains an apparatus which segregates sand samples by grain size (a series of sieves). Wilson demonstrates the apparatus and plots the results on a histogram. He attaches a frequency curve to the histogram.	Now, how would 552.06
	2 ' 35"	1	Wilson shows a histogram for each area he sampled and compares the results.	
			Wilson, explains that as the grains of ancient sediments are often cemented together a different approach is taken to do a grain analysis.	
	13152"		Wilson places a thin slice of sedimentary rock under the microscope. He explains how the slice is taken.	
	15'02"		Shot of rock slice under optical magnification. Sand grains with attached crystal faces seen.	
	15'35"		Wilson explains that grains of some sediments are so fine that they cannot be seen under an optical microscope.	
	15'55"		Shot of mud sediment sample under electron microscope. Grains are less than 1 u accross.	
	17'00"		Wilson with several sea shells. He points out fossil impressions of similar types on rock samples.	from different places.
24 -	17.17		Wilson with a slab of sandstone on which a number of ripples can be seen.	Now, what about
	17135"		Shots of similar ripple marks on sandy beach. Wilson digs into the sand to show a cross section He points out the characteristics of these ripple patterns.	
			Wilson explains the laboratory method for simulating the ripple effect. Shot of a <u>flume tank</u> . Commentary explains how it works.	552.50724

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PROGRAMME SEQUENCE LIST

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Continuation

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Seq.	Time	Footage	Sequence List	Sound Cue
	19'15"		Shots of ripples forming inside the flume tank at various velocities of the water flow.	
	20 '02"		Shots of beach and Wilson standing in a tidal channel. He explains how the ripples in the sediment of the channel were formed.	
			Wilson with rock samples. He sums up his discussion on the methods used to determine the how the sandstone ripples were formed.	
	20142"		Wilson points out the direction of water flow over his sample of rock at the time it was turning to stone. (Paleocurrent direction).	
			Wilson discusses the internal structure of sedimentary rock and how knowledge of these, through flume tank examination, can help deter- mine rock origins.	
	22 127"		Shots of migrating ripples in flume tank and then in nature.	
	24115"		Wilson sums up the unit.	1월11년(102.2)년
	24:34"		Credits	