

# Lyme Regis Fieldwork

## Stage 1 - Setting up the enquiry

### Hypothesis:

Investigate how management at Lyme Regis, Dorset affects **coastal processes** *and* **people**

### Sub-questions:

#### 1. What coastal management is at Lyme Regis?

- Hold the line (Hard/Soft)
- Advance the line (Hard/soft)
- Strategic or managed retreat

#### 2. What impact has the coastal management had on people?

- Positive & negative

#### 3. What impact has the coastal management had on coastal processes?

- Erosion
- LSD / Transportation
- Deposition

## Stage 2 - Primary data collection

Primary data is collected by the student using methods such as surveys, interviews, or experiments.

Primary data collected at Lyme Regis:

1. Photos
2. Beach transect
3. Questionnaire data

## Stage 3 - Secondary data collection

Secondary data is collected by someone else. It includes books, maps, census data.

Secondary data collected for the Lyme Regis fieldwork:

1. Geology map from Southampton University Geography Department website
2. Lyme Regis population structure – 2011 UK Government census -from the Office of national statistics (ONS)

Note - the data is from reliable sources but the 2011 census is 8 years out of date

### Coastal management in front of **Lyme Regis town**

1. The Cobb – concrete groyne
2. Rock Groynes
3. Recurved sea wall
4. Beach nourishment
5. Cliff face realignment

It is effective as shown by the wide beach and the lack of cliff collapse

### Coastal management in front of **The Spittles**, east of Lyme Regis

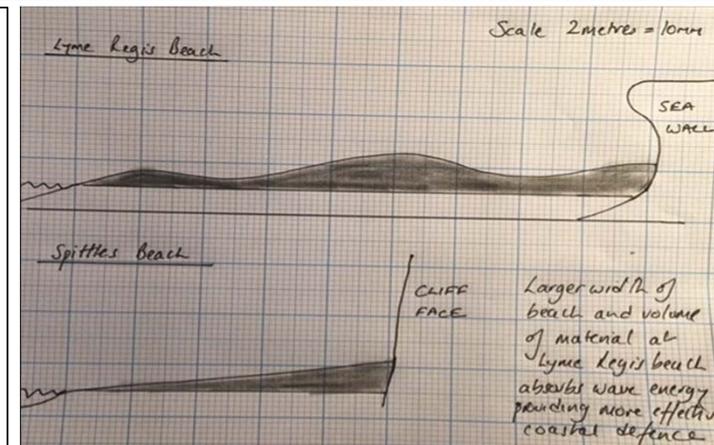
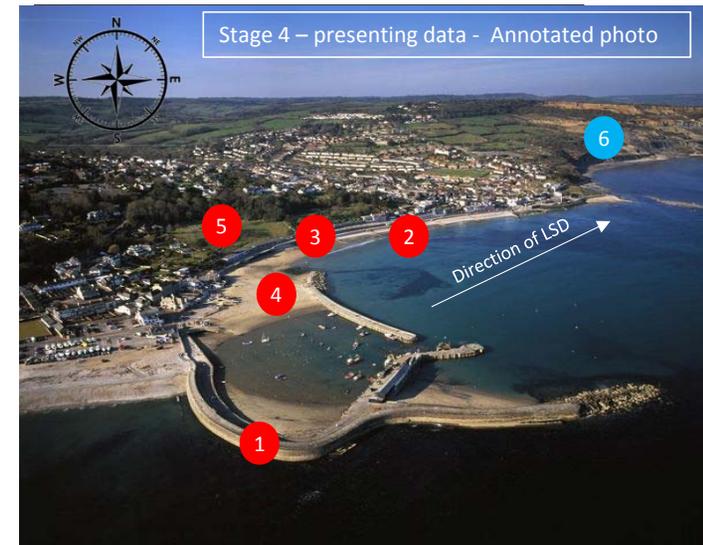
6. Managed retreat

The cliff is not protected. There is evidence of recent cliff collapse and a narrow beach. This can still be considered effective as it is cheap form of management and there are no valuable properties to be protected

## Stage 4 – presenting data - Annotated beach transect

The wider beach at Lyme Regis shows that the beach defences are effective. The groynes have trapped the sand creating a wide beach which is effective in reducing the energy of the waves. Combined with the other methods of coastal defence it has been effective in protecting Lyme Regis.

In contrast the beach at The Spittles is narrow and provides little protection for the cliffs. This area has rapid cliff retreat as a result



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## Stage 4 - presenting data – questionnaire data

1. Which age category do you fall into?

Age	0-15	16-25	26-35	36-50	51-60	61-70	70+
Number	0	1	4	4	10	6	0
%	0	4	16	16	40	24	0
Lyme Regis population structure % *	12	4	6	15	25	25	13

\*(Secondary data – ONS 2011)

2. How would you rate the success of the coastal management at Lyme Regis?

Score	Very Good +2	Good +1	Neutral 0	Poor -1	Very Poor -2
Number	8	16	1	0	0
%	32	64	4	0	0

3. How would you describe the coastal management strategies along the Lyme Regis Coast (circle as many words as you wish)

Description	Ugly	Natural	Effective	Necessary	Attractive	Ineffective	Artificial	Unnecessary	Cost effective	Not cost effective
Number	1	8	20	25	9	0	0	0	22	1
%	1	9	24	29	10	0	0	0	26	1

## Stage 4 – presenting data - justification of presentation techniques

**Annotated photos** were used as it is the best way to show the location of the different coastal protection techniques and the effectiveness of them. It gives a clear visual picture of the area for people unfamiliar with the sites.

**Beach transects** – by presenting the transects on the same graph paper it gives a very clear indication of the effectiveness of the coastal management. The transects could be annotated to show the different parts of the beach eg storm ridges

**Questionnaire data ( & the secondary census data)** was presented in a table as it allows comparison of different peoples' views. By using an excel spreadsheet it was easy to calculate percentages allowing for effective comparison between the opinions of different groups of people

## Stage 5. Analysis and conclusion

**The beach transect** results showed a wider beach at Lyme Regis. This shows that the beach defences are effective. The groynes have trapped the sand creating a wide beach which is effective in reducing the energy of the waves. Combined with the other methods of coastal defence it has been effective in protecting Lyme Regis.

In contrast the beach at The Spittles is narrow and provides little protection for the cliffs. This area has rapid cliff retreat as a result

**The questionnaire results** showed that the people of Lyme Regis thought the coastal management was effective

- 96% of people thought that the coastal management was good or very good
- The vast majority of people judging the coastal management to be effective, necessary and good value for money
- The coastal management has a very positive impact on Lyme Regis because it maintains a wide sandy beach which not only protects the coast from flooding but also attracts tourists to the town.
- These tourists spend money in local businesses thus creating employment in the town.
- In contrast The Spittles had no coastal management and was not a tourist beach and no businesses were present at The Spittles and therefore no coastal management was present

**Conclusion** (answers the sub questions and therefore the hypothesis)

**Hypothesis: Investigate how management at Lyme Regis, Dorset affects coastal processes and people**

**1. What coastal management is at Lyme Regis?**

A mixture of hard & soft engineering in front of Lyme Regis town (sea wall, groynes, cliff realignment, beach nourishment) and soft engineering at The Spittles (managed retreat)

**2. What impact has the coastal management had on people?**

Positive impact – it protects the tourist industry and residential properties. The vast majority of people are very supportive of the coastal management that has been used

**3. What impact has the coastal management had on coastal processes?**

In Lyme Regis it has slowed LSD and established a wide beach. This wide beach reduces wave energy and has stopped cliff retreat

At The Spittles – erosion has been allowed to continue. It is possible that the rate of erosion has increased due to sediment starvation meaning there is a very narrow beach do minimal protection for the cliffs

## Stage 6 – Evaluation

The primary fieldwork results were weakened by the fact that only one day in June was used as a sample. The beach measurements would vary throughout the year and to be accurate the transects would have to be done at different dates throughout the year

The same weakness applies to the questionnaires. In addition the questionnaires did not reflect the age structure of the Lyme Regis population and to be more accurate a stratified sample would need to be used. The secondary data was reliable with the small exception that the census data was from 2011 and therefore 8 years out of date