

Fieldwork opportunities in Marrakech

Within this document is a selection of fieldwork techniques for students to use in order to gather qualitative and quantitative data in the Djemma el-Fna and surrounding souks. They are designed to encourage student engagement with their surroundings, with little preparatory work from you as the teacher.

These suggestions and examples of field data collection techniques indicate the scope of what this incredibly dynamic area of an historic medina has to offer, with potential for development for the NEA.

In addition, suggested discussion points are identified to develop the students understanding of the geography behind how such a location functions. Should you wish to develop these skills further, there are also suggestions for data presentation methods and statistical analysis.

There are three broad themes within the specs (2016) that clearly apply to this area of Marrakech:

- Globalisation
- Development and urban management
- Sustainability

Due to the nature of the square and souks, it is suggested that these techniques are best carried out in the afternoon, sometime after lunch, in order to maximise data collection opportunities.

Suggestion summary

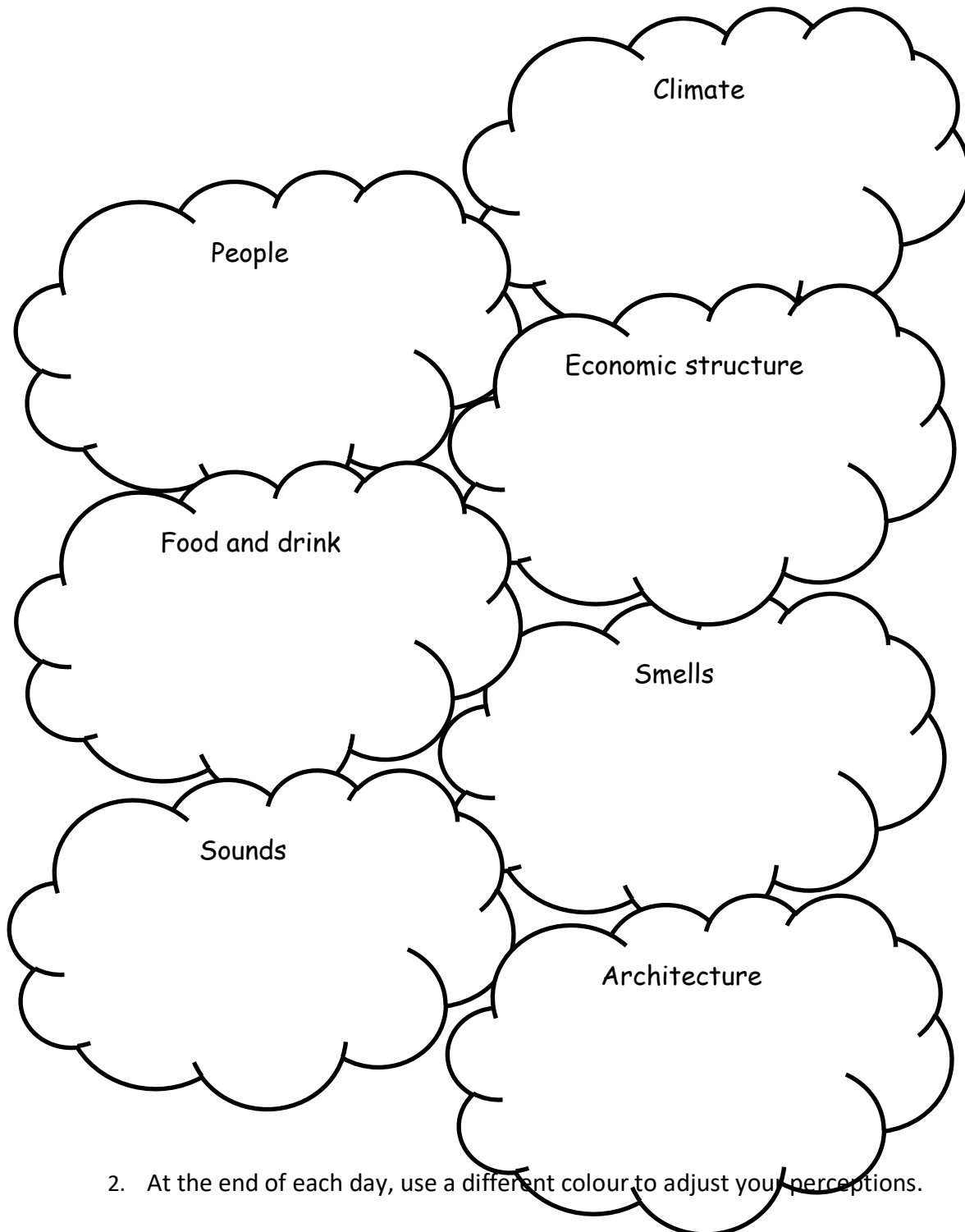
Before the trip: perception challenge, use the images supplied by Discover Ltd to do 5W tasks on, CIA fact file investigation (website).

During the trip: data collection techniques supplied, consolidation and quizzes in the evening, get students to write a haiku poem, wordscape or acrostic poem based on their observations, get students to write a story in the form of an original storyteller.

After the trip: NEA practice with data consolidation, data presentation and statistical analysis practice, evaluation of techniques.

1. Perception Challenge (1)

1. Prior to your trip, write down your perceptions about Morocco. Use the bubbles below as inspiration:



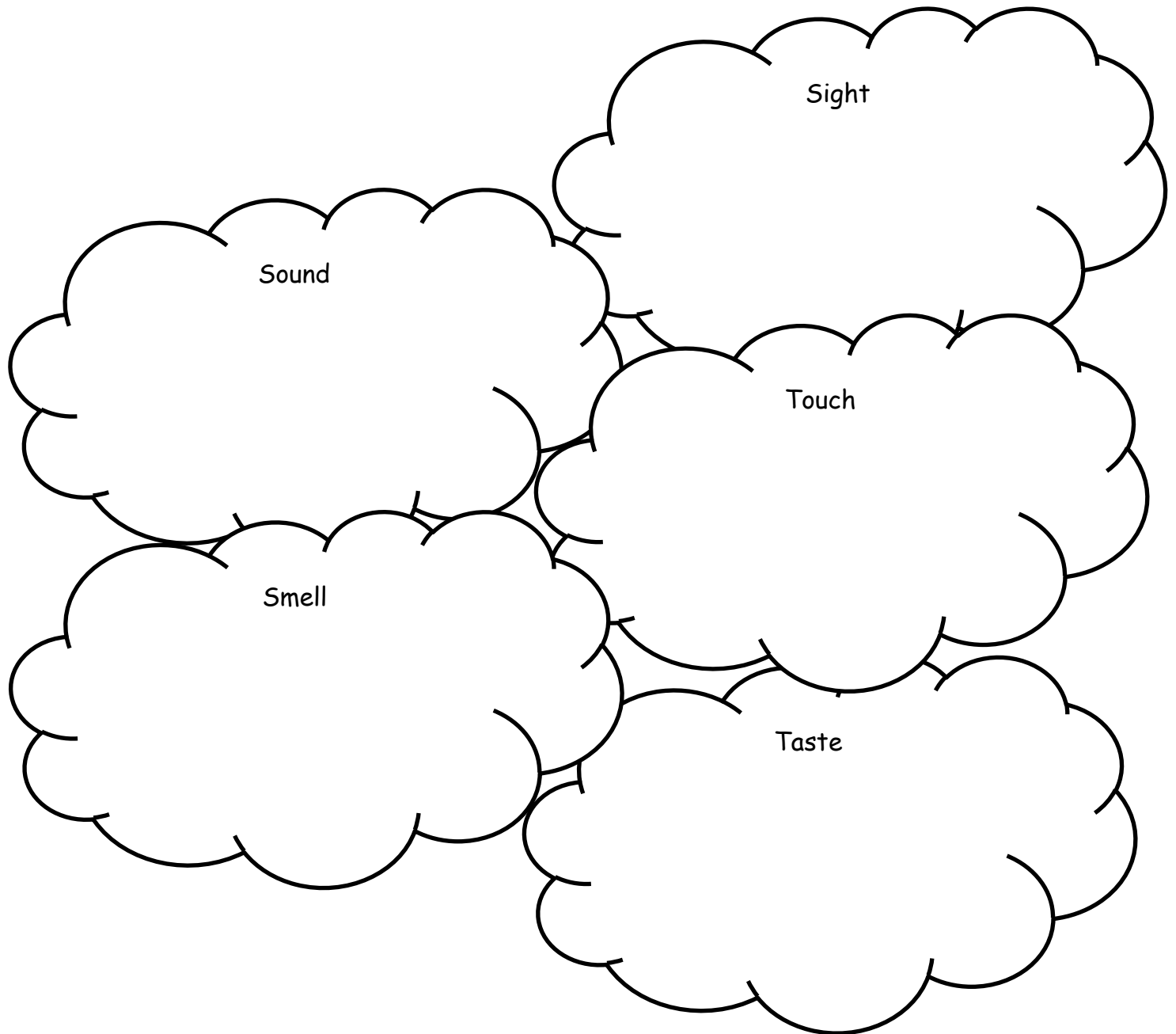
2. At the end of each day, use a different colour to adjust your perceptions.

Points for discussion

- If you have never been to Morocco before, where have your perceptions come from? Are they likely to be a fair representation of what Morocco is actually like, and if not, why not? What is the danger of having such an unrepresented view of a place or group of people?

2. Perception Challenge (2)

1. Stand in the square and take everything in for 1 minute, using your five senses.
2. Brainstorm your senses in the bubbles below:

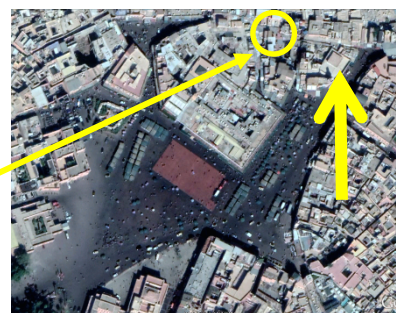


3. Field sketch

1. Position yourself so you have a clear panoramic view.
2. Give yourself 5 minutes to sketch (landscape, not portrait) the key geography in front of you, labelling as you go.
3. Add further detail to your labels, adding the geographical relevance of what it is or what is happening.
4. Make a note of the direction you are facing, weather conditions, date and time.

4. Souk transect

1. Find the Hotel Restaurant Café de France to the NE of the square (yellow arrow).
2. With your back to the café, there is a souk entrance straight ahead across the square – it ought to be fairly busy with movement. This is the souk path upon which to conduct this study, chosen for it being fairly straight and varied in what it offers.
3. Walk up the souk until you reach the T-junction at the end. It is about (...m) long.
4. As you walk up, complete the table below for what the right-hand side has to offer for tourists and/or locals.
5. Return down the same souk, completing the table again for your right-hand side.



Selling	Locals	Tourists
Leather goods		
Ceramics		
Spices		
Cosmetics, e.g. soap		
Lanterns		
Metal work		
Jewellery		
Clothing/linen		
Fruit and vegetables		
Dried fruits and 'sweets'		
Meat		
Rugs and carpets		
Baskets		
Woodwork		
Artwork and paintings		
Café or fooderies		

Tourist tat		

Variations

- Could look at:
 - Male v female sellers since there might be a pattern for who is selling what
 - How many sellers are on their mobile phones

Statistical analysis

- Central tendencies

Data presentation

- Dispersion diagram for each side of the souk

Points for discussion

- Is there a pattern to the products for sale, and why does this pattern exist?

5. Land use survey: Djemma el-Fna (3)

1. Using the copy of Djemma el-Fna (next page), identify the location and type of seller-setup based in Djemma el-Fna.
 - a. Permanent (fixed location, like a shop)
 - b. Large temporary (large stalls, like the juice sellers)
 - c. Small temporary (small stalls, like cosmetic sellers)
 - d. Semi-mobile (those with stools or mats to sit on, like henna tattooists and snake charmers)
 - e. Mobile (sellers walking around and up to the consumer)
2. Take photographs to illustrate the range of sellers that you come across.
3. Annotate the map to highlight the types of goods sold in each seller-setup.

Variations

- Conduct this in the morning (about 9am), afternoon (about 3pm) and evening (about 7pm) to track the changing function of the square over time
- During call to prayer, identify how many who practice the Islam faith take time to pray
- Use the same map to conduct a cat-count!

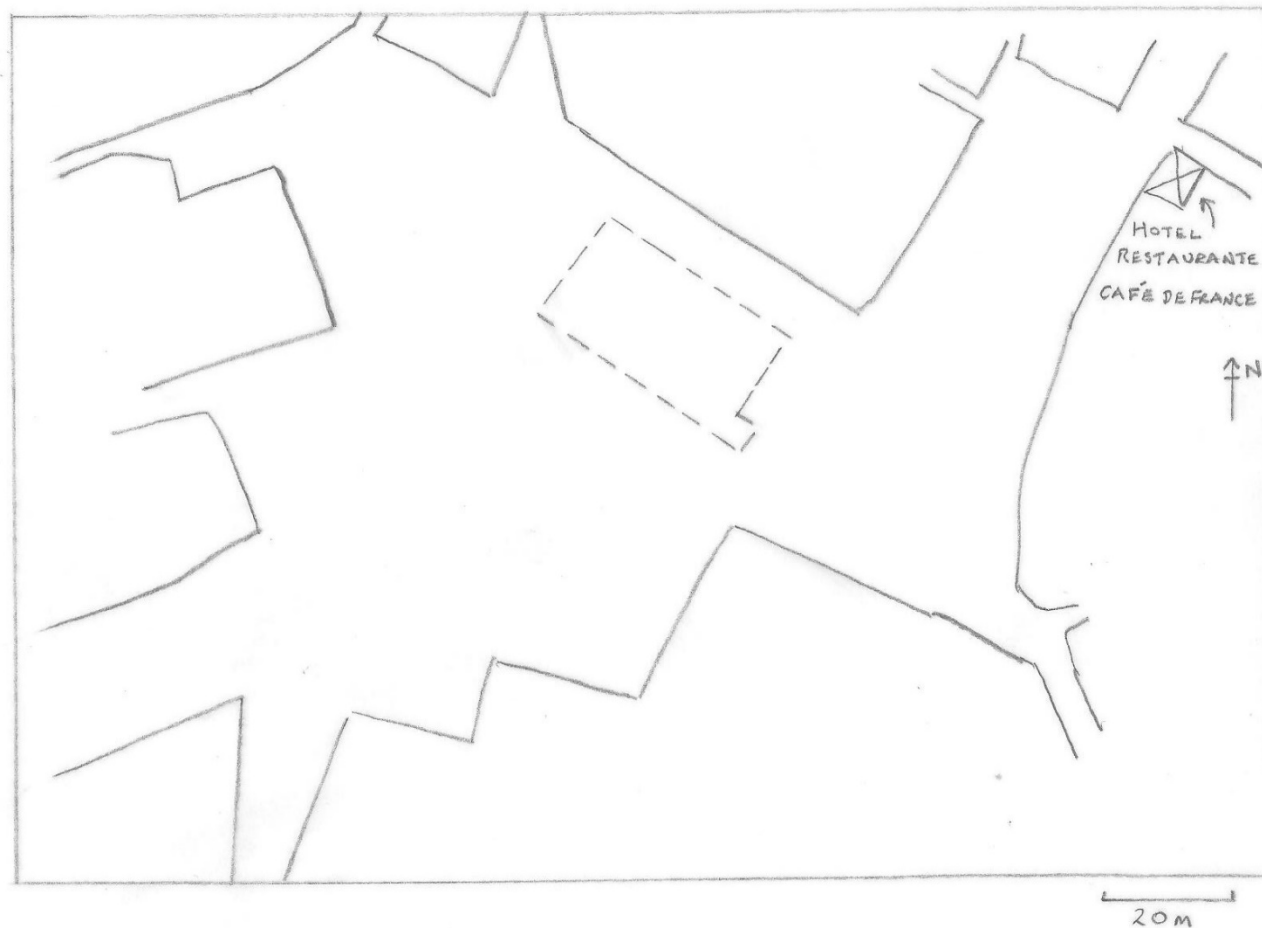
Data presentation

- Place tracing paper over the original map and identify zones of seller-setup.

Points for discussion

- The concept of a business hierarchy.
 - Those in the permanent stores will pay a higher fee to the local government in order to be allowed to trade. They have access to gas and water through the newly laid pipes (2017/18) and have the ease of locking their stock away at the end of the day.
 - The large temporary sellers will pay a smaller fee than the permanent stores to be allowed to trade. They can hold a great deal of produce and can easily relocate their stall to a safe overnight location and to restock.
 - The small temporary and semi-mobile are not meant to trade freely in the square. They have one of two options: (a) to move on when approached by the police, or (b) pay a backhand fee to the police to be ignored.
 - The mobile sellers are mostly Algerian economic migrants, selling sunglasses and baseball caps to tourists by approaching them. It is most likely that they informally pay a percentage of their takings to a central person in order to operate in such a lucrative location. They very much look after each other in a supportive manner, suggesting they perhaps know each other from their source communities.
- If counting how many locals in the square take time to pray during call to prayer, discuss how far is the Islamic faith is being diluted by economic activity.

JEMMA EL-FNAA



6. Pedestrian counts

1. Stand in a position for 5 minutes in the square and create a tally of how many people pass you.

Variations

- Have two columns to identify how many perceived non-locals and perceived locals walk past you
- Include another column to account for 'globalised' locals, and/or male/female, and/or by perceived age
- Track direction of movement (to create a proportional flow diagram)
- Could do this in multiple locations to compare impacts of distance from the main square, or in the same location at different times of the day

Location	Count 1 (AM)	Count 2 (PM)	Count 3 (EVE)
Djemaa el-Fna square			

Statistical analysis

- Chi-squared if in different locations

Data presentation

- Isoline map
- Isopleth if the areas between isolines are shaded in a choropleth manner
- Proportional flow diagram (tracking direction)
- Proportional symbols on a map (multiple totals on a map) (GeGraph)
- Histogram (age)
- ArcGIS heat maps

Points for discussion

- Give reasons for any patterns identified in the data
- Link the first variation (perceived locals Vs perceived non-locals) to rural-urban migration, and the opportunities and challenges to the host location as a result of this

7. Transport tally

1. Stand in a position for 5 minutes on the edge of the square and create a tally of the different modes of transport that pass you.

Variations

- Give students the list of transport methods to look out for
- Identify what is being transported, e.g. people, goods
- Identify opportunities for advertising on the side of transport
- Track direction of movement (to create a proportional flow diagram)

Mode of transport	Tally

Statistical analysis

- Chi-squared if in different locations

Data presentation

- Pictogram

Points for discussion

- Explain why there is a greater variety of transport methods in Marrakech than there are in a UK city.
 - Car
 - Van
 - Truck
 - Cart (small pulled by 1 person or donkey, large pulled by multiple people)
 - Calèche (horse and carriage)
 - Donkey
 - Tuk-tuk
 - Moped with carriage
 - Moped
 - Bicycle



- How is this variety of transport managed in a safe or sustainable way?
- Why would this type of urban transport not work in UK?

8. Bi-polar on the surrounding environment

1. Identify 4/5 different locations to conduct this technique.
 - a. Djemma el-Fna square
 - b. Souk
 - c. Park to the NE of the square
 - d. Main street east of the square
2. Rate the area around you from 1 to 5 for each of the criteria below.
 1. Very Poor
 2. Poor
 3. Okay
 4. Good
 5. Excellent

Variations

- Identify an appropriate sampling strategy
- Come up with your own criteria to assess
- Assessment can be based on variety of, amount of or quality of...

Statistical analysis

- Spearman's with scatter graph

Data presentation

- Choropleth map if areas fall along a transect
- Scatter graph with line of best fit to show the relationship in changes along a transect
- Bi-polar bar chart
- Radial diagram (5 categories being investigated)

Location/street/souk:

	Criteria Assessed	Score					Criteria Assessed
		1	2	3	4	5	
Buildings	Poor design/ugly						Well-designed/attractive
	In poor condition						In excellent condition
	No improvements made						Improvements made
	Extensive vandalism						No vandalism
Easy of movement	Congested with vehicles						Congested with people
	Parking poorly managed						Parking well managed
	High level of noise						No noise
	Dangerous for people to move around						Safe for people to move around
	Offensive smells						Pleasant smells
General	Roads/paving poorly maintained						Roads/paving well maintained
	Poor variety of street furniture						Variety of street furniture
	Lots of litter						No litter
	Poor quality greenery						High quality greenery

	Area difficult to access						Area easy to access
Sensory	Unhappy vibe						Happy vibe
	Stagnant						Dynamic
	Drab and dull						Colourful and vibrant
	Unsafe						Safe
	Noisy						Quiet
	Offensive smelling						Pleasant smelling
People	Sad or angry						Happy
	Immobile						Mobile
	Poorly dressed						Well dressed
	TOTAL SCORE						

9. Movement flow

1. Start at one end of either street south of Djemma el-Fna.
2. Walk in a straight line for 25metres and count how many times you need to deviate from your straight path. Rate on the scale below:
 1. Needing to stop and go backwards
 2. 5-6 deviations or needing to stop
 3. 3-4 deviations
 4. 1-2 deviations
 5. No deviation at all

Variations

- Repeat this in different areas (Djemma el-Fna, a souk, the park to the SW of the square) to compare movement flow.
- Identify an appropriate sampling strategy

Statistical analysis

- Dispersion diagram/box and whisker graph (central tendencies and measures of variations) if using the two main streets. Need data to be collected from all participants to have enough to plot. Lends itself to central tendencies

Data presentation

- Dispersion diagram if using the two main streets
- Box and whisker graphs if using the two main streets
- Proportional flow diagram

10. Building decay survey

1. Walk down the street and make a note of (overall) how you feel about the quality of buildings you have passed.
2. Add up for a total score and subtract from 60.

	None	Little	Some	Much
Deterioration of walls	0	1	3	5
Paint peeling	0	1	2	3
Displaced roof materials	0	1	5	9
Broken glass in windows	0	1	3	7
Broken gutters etc.	0	1	3	7
Structural damage, e.g. cracks	0	3	6	11
Rotting timber	0	2	4	8
Sagging roof	0	2	6	10

Score	Physical condition of buildings
50-60	Good/excellent
40-49	Satisfactory
30-39	Generally unsatisfactory. May be bad in specific parts, which has brought the score down
20-29	Action needed in very near future to improve the structure
Below 20	Need to demolish or rebuild

Variations

- Add your own evidence for building decay, and score. Remember to adjust the 2nd instruction figure accordingly.

Statistical analysis

Data presentation

- Complex diagram with bar graphs
- Histogram

11. Evidence of globalisation

1. As you walk around the Medina, create a tally of how often you see evidence of globalisation.

Evidence of globalisation	Tally	Total
Football shirts for foreign teams		
Brands		
Language		
Music		
Signs in different languages		
Use of technology		
Clothing		

Variations

- Add your own evidence for globalisation, either before or during the task.

Statistical analysis

- Central tendency

Data presentation

- Bar graph

Points for discussion

- How far will globalisation dilute the cultural identity of the Djemma el-Fna over time?

12. Soundscape (1)

- Location:
- Date:
- Time:
- Weather:

1. Shut your eyes for one minute and listen to the world around you
2. After one minute open your eyes – you are now tuned in to the noises surrounding you
3. You are in the centre of the cross hairs in the framework below. Draw symbols on the framework to represent the things you can hear

Key:

☐ Anthropogenic

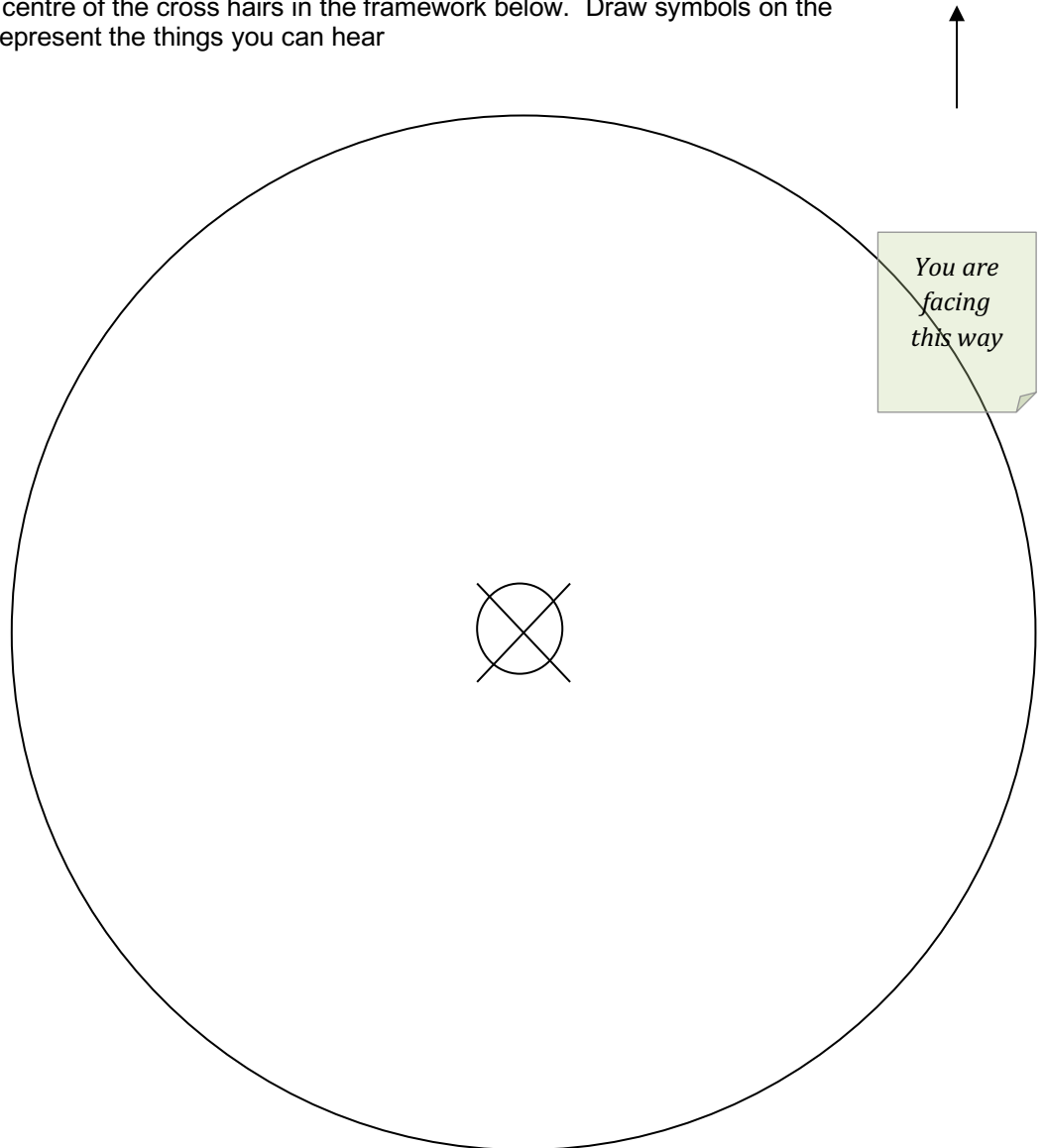
(People and their activities)

☐ Biogenic

(Ecology, e.g. wind in trees, and ecosystems, e.g. birds)

☐ Geogenic

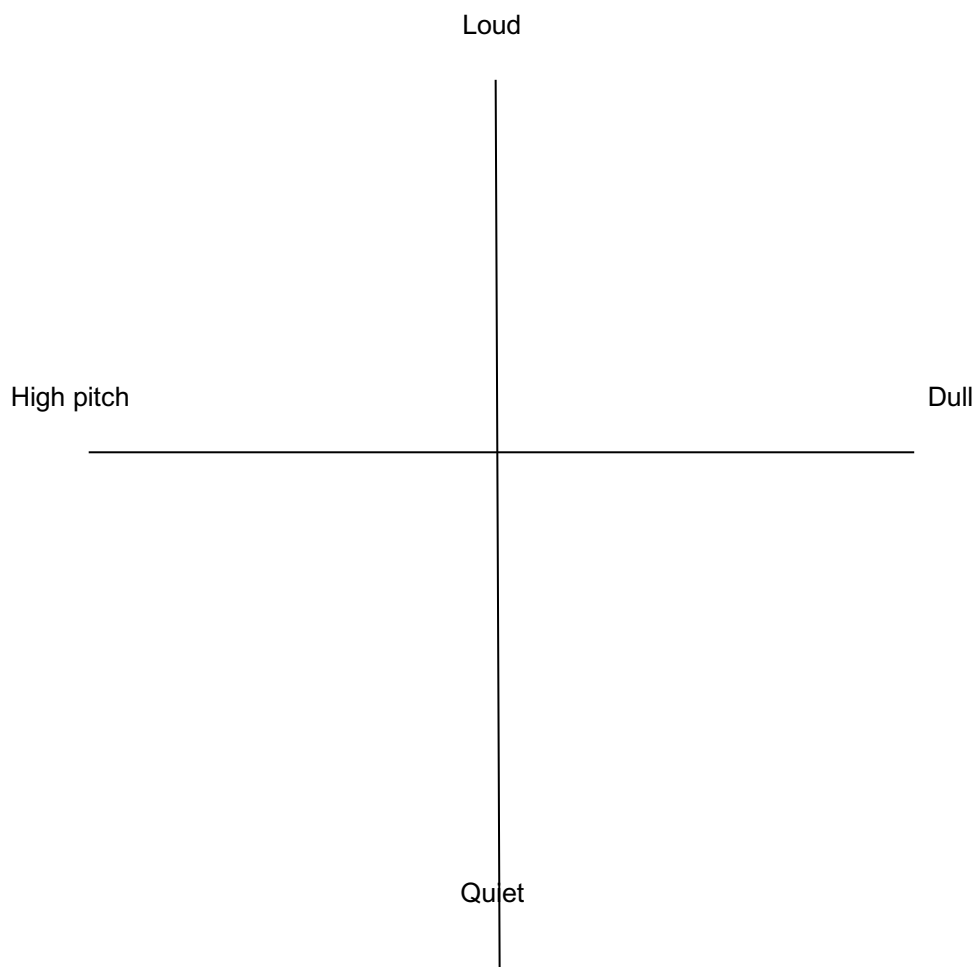
(Physical environment, e.g. crashing waves)



13. Soundscape (2)

- Location:
- Date:
- Time:
- Weather:

1. Try to pick a location with uninterrupted 360° 'sound vista' to sit
2. Shut your eyes for one minute and listen to the world around you
3. After one minute open your eyes – you are now tuned in to the noises surrounding you
4. You are in the centre of the cross hairs in the framework below. Write the **words** of things you can hear on the framework to best describe the sound you are hearing



Variations

- Create a haiku poem or word-cloud using words from the second soundscape

Points for discussion

- How is the soundscape likely to change over the course of the day?

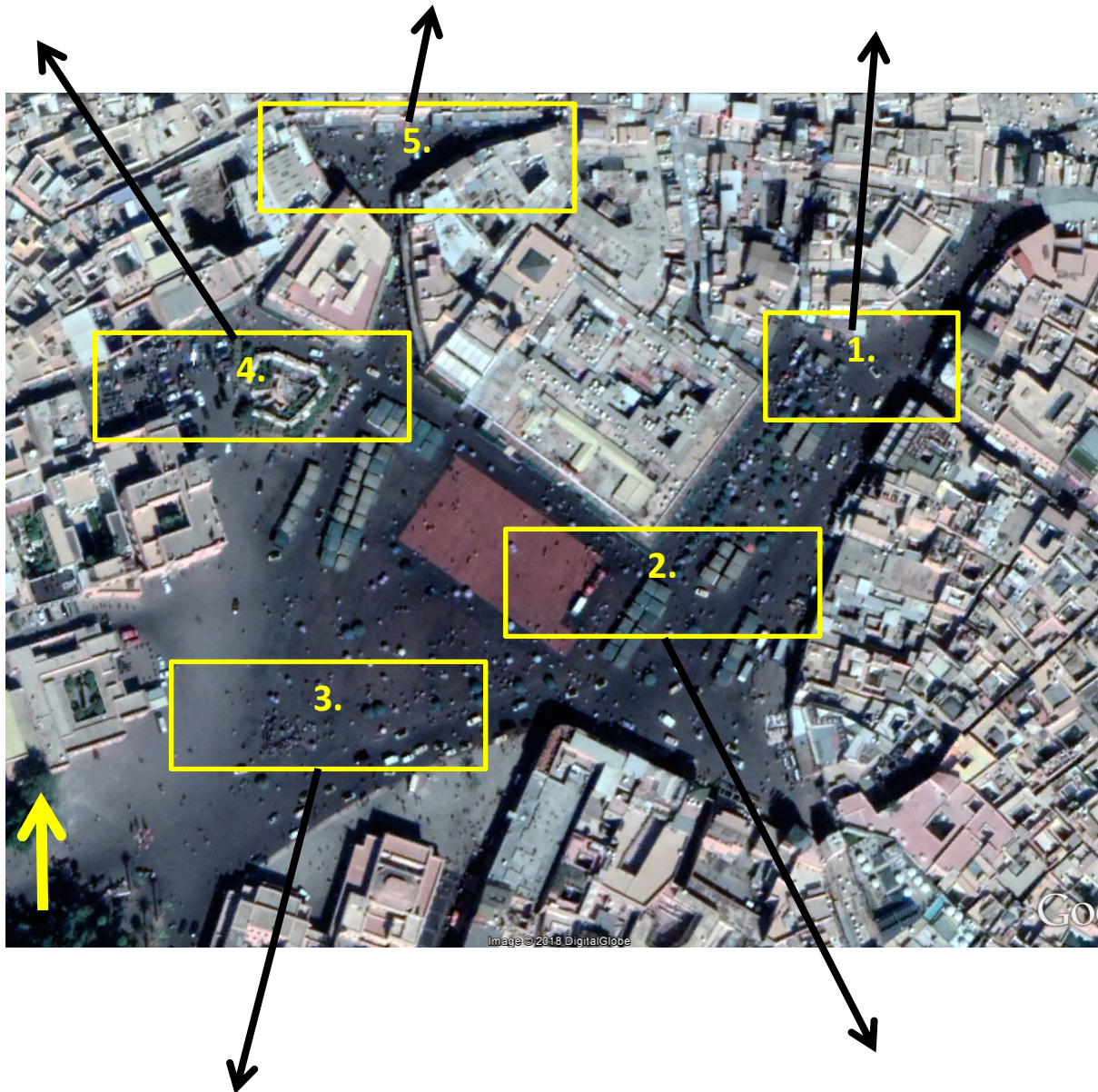
14. Trade count

1. Walk around and within the Djemaa el-Fna.
2. Create a tally for all the different types of trade there is in the square.
 - (P) Permanent (fixed location, like a shop)
 - (LT) Large temporary (large stalls, like the juice sellers)
 - (ST) Small temporary (small stalls, like cosmetic sellers)
 - (SM) Semi-mobile (those with stools or mats to sit on, like henna tattooists and snake charmers)
 - (M) Mobile (sellers walking around and up to the consumer)

Type of stall	Tally					Total
	P	LT	ST	SM	M	
Orange juice stalls						
Henna tattoo artists						
Snake charmers						
Curios						
Bakery goods						
Animal photos, e.g. monkeys						
'Tourist-tat' e.g. hats and sunglasses						
Artists (painting)						
Ceramics						
Storyteller						
Hand sellers, e.g. cigarettes						

15. Plastic bag use

1. Spend 5 minutes looking at a particular area of the square.
2. Make a tally of the number of plastic bags being given or used.



Points for discussion

- Evaluate the effectiveness of the plastic bag ban in Morocco

16. Photo-Op

1. Throughout your time in Marrakech, be sure to take photographs of the scenes before you.
2. At the end of your day/trip, select one photo you took that encapsulates the character of Djemaa el-Fna square and surrounding souks.
3. Upload your chosen photo to Instagram and/or Twitter using the hashtag given by Discover Ltd in their promotional pack.

17. Land use survey: Streets (two) south of Djemaa el-Fna square (1)

1. Using the enlarged copy of the Google Earth screenshot, identify the primary use of the ground level of every building and structure along the street. For example, restaurant, cafe, post office, curios etc.
2. Take photographs to illustrate the range of land uses you find.
3. Annotate the land use map to identify evidence of globalisation by the shops or products the shops sell, clothing the locals wear, music in the restaurants etc.

Residential

- F flat
- T terraced house
- S semi-detached house
- B bungalow
- D detached

Industrial

- L light manufacturing
- H heavy manufacturing
- C chemical works
- B building works
- E extraction (mined)

Commercial

- F food shop
- P personal services
- D department stores
- Y furniture and carpets
- V vacant or under construction
- G garage
- M market
- S specialist
- O office

Entertainment

- H hotel
- S sport centre
- T theatre or cinema

- B bar
- R restaurant and cafe

Public buildings

- E education and library
- H hospital
- C church/mosque
- P police
- W welfare

Open space

- P park
- C cemetery
- U unused land
- D derelict building
- S sports field

Transport

- B bus station
- T taxi rank
- C car park
- H horse carriage park

Services

- F financial
- B business
- M medical
- H housing



100m

Variations

- Create our own categories
- Use colour coding for the different land uses
- Identify the secondary use of the other storeys when marking on the primary land use – see the next page
- Create your own base map by walking down the street and observation where the buildings start/stop
- Could compare land use and noise levels/EQS to the square to see if there is a relationship
- Could be done for each of the souks to identify what each souk specialises in (by product rather than land use)

Statistical analysis

- Central tendencies

Data presentation

- Complex diagram – tracing paper, linking two sets of data

Points for discussion

- Is there a pattern to the land use down the two streets, and why does this pattern exist?

18. Land use survey: Streets (two) south of Djemaa el-Fna square (2)

1. Identify the primary and secondary land use of the same two streets east of Djemma el-Fna, using the grid below to help you.

The grid is composed of four vertical columns, each containing 20 squares. To the left of the grid, there is a north arrow pointing upwards and a scale bar labeled '100m'.

19. Urban Greening

1. Locate yourself in the park to the SW of the square.
2. Walk through, completing the table as you go.

		Tally	Total
Street furniture	Benches		
	Bins		
	Street lights		
Greening	Trees		
	Hedges		
	Shrubs		

Other things to look out for

- The number of times that locals spit and smoke
- Urban greening by using roof tops
- The value of the roof top
- The number of satellite dishes (best done from the top floor of the Hotel Restaurant Café de France)

General discussion points

- What evidence is there for the involvement of Marrakech in the 2016 COP22?
- How sustainable is the function of the square?
- What is the sense of place of the square?
- What impact are the five star/golf resorts/fully inclusive hotels on the city outskirts likely to have on the function/tourism of the Djemma el-Fna?
- To what extent do opportunities in Marrakech outweigh the challenges?
- To what extent is Marrakech a sustainable city?
- Assess how far Marrakech is influenced by globalisation.
- The Geography of begging – how does the begging in Marrakech compare to that of a UK city?
- How successfully is disposable waste managed in the city?

Fieldwork apps

Below is a list of useful apps that can be used on a smartphone to help with data collection in Marrakech. They are free, unless otherwise stated. Some will work better than others, and some will be personal preference.

GPS locator

- GPS log
- Collector, with ArcGIS
- Navigator for ArcGIS
- Roam GPS
- Snap2map – takes photos and locates onto ArcGIS map

Spatial data

- Cogo

Noise meter (use in conjunction with the soundscape)

- Decibel 10th

Beach/dune profiles

- My Tide Times
- iLevel
- TopoProfiler £1.99
- Theodolite £5.99

360° videos

- Pie

Annotated photos

- Skitch
- Altitude DC (shows altitude using picture taken and maps)

Fieldnotes

- Gyro Compass
- FieldNotesLT
- FieldNotesPro £4.99