



**General Certificate of Education
June 2011**

AS Archaeology 1011 ARCH2

Unit 2

Archaeological Skills and Methods

Final

Mark Scheme

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

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SECTION A**Question 1**

Study the **Introduction, Figures 1 and 2** and use your own knowledge.

Explain why some, but not all, of the archaeological features are visible from the air. You may use simple sketches to illustrate your answer.

(14 marks)

(Target AO1: 14)

L1:	Vague and/or listed/thin generic points	1-3
L2:	More detailed generic points or undeveloped points linked to method or source	4-7
L3:	Developed points linked to source or method illustrated	8-11
L4:	Well developed points linked to source and method illustrated	12-14

Guidance:

Elevated perspective aids visibility.

Positive crop marks: taller, richer, denser; pit provides nutrients, moisture, space, warmth.

Source: linear features are ditches; presence of pits; tram lines indicate crop marks.
Max L3 for soil marks

+1 if plan and photograph are directly compared.

For L3+ responses must address why features do **not** appear, e.g. only shows surface evidence, no crop, wrong crop, features too small.

Question 2

Study **Map 2, Figures 1, 2 and 3** and use your own knowledge.

Outline the uses and limitations of antiquarian sources such as General W Roy's map (**Figure 3**) to archaeologists. (6 marks)

(Target AO1: 6)

L1:	Generic sources, e.g. old maps or description of figure (1) or specific list (up to 2)	1-2
L2:	Specific sources with explanation not linked to figure or specific sources linked to figure but not explained or pros and cons of figure with implicit reference to source	3-4
L3:	Specific sources with sound explanation and link to figure or pros and cons of figure with clear reference to source	5-6

Top of L2 and L3 needs reference to both uses and limitations.

Guidance:

Probably get mentions of the plans, drawings and observations of Stukeley, Aubrey, etc.

Uses: previous land use; any standing structures; changes; accuracy; military survey may be more accurate.

Limitations: artistic licence; some inaccuracy; interpretations sometimes flawed.

Source: Field boundaries; land use; river course; plan evident; less technical equipment; busy, so hard to read; no key, scale or orientation evident.

NB: Be aware of listed responses that are not presented in the form of a list.

Question 3

Study **Figures 1, 4 and 5** and use your own knowledge.

What are the uses and limitations of the excavation technique illustrated?

(8 marks)

(Target AO1: 8)

L1:	Name check and/or very thin (finds archaeology)	1-2
L2:	Generic uses/limitations of (trial) trenches, but balance not required	3-5
L3:	Uses/limitations of small trenches with reference to the source	6-8

Guidance:

Uses: quick; adaptable; find features suggested by other methods; identify period; identify phasing; view section.

Limitations: narrow; can't see full plan; relationships between features.

Source: construction phases in Fig. 4; length of Fig. 5 (it has possibly been extended); materials evident; section evident.

Responses only considering an incorrect technique yet partially relevant by default are limited to Level 1.

Responses justifying strategic reasons for the use of trial trenches to be rewarded at the top of Levels 2 and 3.

Question 4

Study the **Introduction**, **all the Figures** and use your own knowledge.

What geophysical techniques would be most likely to yield good results in a survey of Inchtuthil fortress, and why? (12 marks)

(Target AO1: 12)

- | | | |
|-----|---|--------------|
| L1: | Thin, generic description or list (2) | 1-2 |
| L2: | Fuller outline with some justification of technique(s), but with no appreciation of source.
Undeveloped outline of technique(s) with limited reference to source | 3-5 |
| L3: | Sound justification of at least one appropriate technique with some appreciation of the source | 6-8 |
| L4: | Sound justification of at least one appropriate technique with good appreciation of the source | 9-10 |
| L5: | Sound justification of 2+ appropriate techniques with a good appreciation of the source | 11-12 |

Guidance:

Expect magnetometer and resistivity survey.

Magnetometer: haematite in ditches/pits; metal artefacts; heating (iron nails & tiles made on-site); sharper definition of smaller features.

Resistivity: low resistance to moisture in ditches/pits; high resistance to stone footings.

Metal detector: iron artefacts.

GPR: Voids and layers.

Evidence from Roy's map now disappeared; walls in trenches; ditches in aerial photo; pit and metals; heating in fabrica, etc.

To access top of Levels 4 and 5 candidates must lift specific material from sources provided.

Question 5

Study **Figure 6** and use your own knowledge.

Outline the evidence that the archaeologists could have used to arrive at the reconstruction illustrated.

(8 marks)

(Target AO1: 8)

- | | | |
|-----|--|------------|
| L1: | List and/or thin generic points | 1-2 |
| L2: | Generic points developed or specific points partially developed or specific source-related points for bark or timbers | 3-6 |
| L3: | Specific, source related points developed for bark and timbers | 7-8 |

Responses scoring the top of the L2 and L3 must consider off-site evidence (including experiments).

Guidance:

Depth and width of post holes link to height of structures; presence of environmental evidence for trees; dark staining in post holes as evidence for wood; remains of turf; buried soil layer; use of Roman images; experimental archaeology: surviving timbers in pit; comparisons with other reconstructions.

Question 6

Study the **Introduction, all the Figures** and use your own knowledge.

Outline the most likely methods which modern archaeologists could use in order to assign dates to the finds and features at Inchtuthil.

(12 marks)

(Target AO1: 12)

L1:	List	1-3
L2:	Thin outline of methods (2+ for 6) with little or no technical vocabulary or reference to the source	4-6
L3:	Outline of methods (2+ for 9) with either appropriate technical vocabulary or reference to the source	7-9
L4:	More detailed outline of methods (2+ for 12) using appropriate technical vocabulary and appropriate use of source	10-12

Guidance:

Likely methodologies will be typology and thermoluminescence (although not typical for these finds, candidates will be aware of such a method for fired pottery).

Thermoluminescence: absolute dating method; brief description of methodology.

Typology: material; method of manufacture; colour; style; fashion trends; sequence established; relative dating technique; tpq/taq; link to fort plan; tpq from map.

Source: presence of designs is crucial here.

Stratigraphy: link to Figures 4+5.

NB Must allow techniques applicable to timbers.

Unit ARCH2: Marking Section B essays

The knowledge-based approach of this section enables candidates to select content from a wide variety of contexts. As a result, highly specific mark schemes are inappropriate. The scheme must be sufficiently flexible that it can embrace whatever case studies that teachers and candidates may select to study in that particular year.

Marking guidance therefore falls into two main types. A broad hierarchy of levels based on the assessment objectives for all essays and then exemplification for each particular question. In the latter case the contexts and lists of expected content are simply for the sake of illustration. There are many other sets of evidence, which would provide equally good answers.

The balance of assessment objectives on this section between AO1 and AO2 is 33.3:66.6. The primary aim of the assessments is to test candidates' understanding of key techniques and issues in practical archaeology (AO2). Depending on the questions chosen they will focus, to a greater or lesser extent, upon the basis of archaeological knowledge, its limitations, and the nature of the factors affecting continuity and change in the past. Understanding of AO1 will also be a key factor in differentiating responses.

Good examining is, ultimately, about the consistent application of judgement. Levels of response mark schemes provide the necessary framework for exercising that judgement but cannot cover all eventualities. Where you are very unsure about a particular response, refer it to your team leader.

Generic Essay Levels Mark Scheme

Below Level 1 **0 marks**

Answers with no merit or relevance to the question set.

Responses at this level may be of reasonable length and may contain archaeological examples and material but they will not respond to demands of this specific question. The candidate may have incorrectly interpreted a concept or simply responded to a word or phrase in the question by writing all they can think of about that 'trigger'.

Level 1 **1-6 marks** **AO1 (2) AO2 (4)**

Weak or undeveloped answers.

Either: A Responses at the bottom of this level (1-3 marks) may provide some information which could be relevant to the question but it will be undifferentiated from irrelevant or inaccurate material – in other words it will randomly rather than purposely linked to the question. More typically (4-6 marks) the candidate will demonstrate some understanding of the thrust of the question but is unable to respond in an adequate manner. Some understanding may be shown by the selection of relevant material although this will be presented in a 'scattergun manner' with little discrimination, explanation or attempt to use it as part of a logical argument. The account will be superficial and may be within the context of a purely narrative or descriptive framework.

Or: **B** Alternatively the response may consist of a very weak description of technique(s) or a very thin account of a site(s), some of which may be relevant to the question but which are undeveloped. Nevertheless, some of these could have been developed into higher level responses.

At Level 1, where candidates submit full essays they are likely to display poor communication skills, work being characterised by disjointed prose, poor organisation and frequent lapses of spelling and grammar. This level also includes responses which do address the question but are only a few sentences in length or undeveloped lists or plans which had the potential to become higher level answers.

Level 2 **7-12 marks: AO1 (4) AO2 (8).**

Limited responses with some merit.

Either: A Responses which demonstrate understanding by including some material relevant to the question. However, it is likely that the candidate has been unable to organise their work successfully in order to meet the demands of the question. Typically this may include the very basic description of techniques with little or no exemplification. Understanding of the issues in the question will be simplistic and there will be very little assessment of the data which will often be presented in a descriptive format.

Or: B Answers which do address the question and demonstrate some understanding of the issues, perhaps making several valid points. However, there will be very little or no relevant archaeological examples or explanation of technique(s) to support their case.

At Level 2, candidates are likely to display some poor communication skills. Some of their work may be characterised by disjointed prose, poor organisation and frequent lapses of spelling and grammar. This level also includes good, detailed essay plans and promising essays which have not been developed (e.g. very brief or truncated).

Level 3 **13-18 marks: AO1 (6) AO2 (12).**

Sound responses.

Either: A Responses which largely contains material relevant to this question and where the candidate has begun to organise and structure their work successfully in order to meet its demands. This may be of similar depth to Level 2 responses but will be largely focussed on issues raised by the question.

Or: B Answers which address the question and demonstrate a reasonable understanding of many of the issues it raises. They will be able to reach sensible conclusions but provide limited explanation of archaeological technique(s) to support their case. Include at this level: responses which are of Level 4 or 5 quality but which have only addressed half of a question which contains two main elements; good generic responses which include no exemplification; detailed accounts of archaeological sites which only partially address the question.

Introductions and conclusions are likely to be limited at this level and appraisal will be simple.

At Level 3 communication skills may remain limited and may be adequate at best. At the lower end of the level spelling and grammatical errors are likely to be frequent and answers will show limited powers of organisation. At the higher end there may still be insecure structuring of paragraphs and weaknesses of expression breaking the flow of the answer.

Level 4 19-24 marks: AO1 (8) AO2 (16).

Good responses.

Either: A Responses largely containing well focused, relevant material organised in the form of 1-2 explanations of techniques or a range of 3+ with some limited development. Reasonable exemplification will be present. Depth of understanding of terms may be very good but commentary and argument will be underdeveloped.

Or : B Well-focused responses which address the question directly and demonstrate a good understanding of the issues raised by it. The account is likely to have a coherent structure and may be argued consistently. However, explanations of techniques will still be limited despite being supported by some examples. Detailed appraisal of specific techniques will not therefore be possible.

For 22+ expect some attempt to draw a conclusion.

At Level 4 communication skills will generally be sound. Though spelling and grammar will be secure there may still be lapses with technical vocabulary. Organisation will be sensible but there may be passages of less well directed writing or an overly schematic approach.

Level 5 25-30 marks: AO1 (10) AO2 (20)

Very good responses.

Either: A Responses containing considerable, well focused relevant material either in the form of 1-2 detailed explanations of techniques or a range of 3+ with relevant development. (Expect the equivalent of a couple of sentences on each.) Analysis will be present although at the bottom of this level this will not necessarily be consistent and not all the data will be necessarily appraised. Exemplification will be sound. Evaluation and assessment of the relative merits of different sources and lines of argument will be present.

Or: B Responses which address the question directly and precisely, and demonstrate a very strong understanding of the issues raised by it. The account will be well-structured and should be argued consistently. Appraisal of specific case studies via supporting evidence will be sound.

A conclusion will be reached about the main element in the question.

At Level 5 communication skills will be generally effective and organisation clear and logical. Spelling and grammar will be sound, though there may be occasional errors.

Deciding on marks within a level

One of the purposes of examining is to differentiate between responses in order to help awarders distinguish clearly and fairly between candidates. We want to avoid too much “bunching” of marks which can lead to regression to the mean. A key element here is the way examiners approach the work. Given the constraints of time and circumstance, candidates will not produce perfect work. Ideally you should take a ‘cup half full’ rather than ‘cup half empty’ approach to responses above Level 2. This should help you to use the full range of marks available. Start by allocating the essay to the level which best describes it even though it may not be a perfect fit. If you really cannot decide between a level, award the response the top mark of the lower level where the decision is between levels 1-2 or 2-3 and at the bottom of the higher level in all other cases.

Where you are confident about a level, you should start by placing the essay on one of the middle marks for that level. Next consider whether you feel that mark to be about right, slightly generous or slightly harsh in comparison with other responses at that level. In the latter cases move the essay out to the lower or higher mark in the level. In making decisions away from the middle of the level, examiners should ask themselves whether the response is:

- Precise in its use of factual information?
- Technically accurate?
- Appropriately detailed?
- Factually accurate?
- Appropriately balanced, or markedly better in some areas than in others?
- Generally coherent in expression and cogent in development (as appropriate to the level awarded)?
- Well-presented as to general use of syntax, spelling, punctuation and grammar?

The latter two points indicate how the candidate’s quality of written communication might influence the award of marks within a given level of response and complement the information given elsewhere.

Question 7

Inchtuthil is a site in a rural area. Explain the similarities and differences between excavating sites in urban and rural settings. (30 marks)

Use generic levels mark scheme

Indicative content

Urban: Challenges include: overburden; deep & complex stratigraphy; need to compromise some layers/phases of the site; infrastructure (cables, etc); health & safety concerns; working in buildings; removal of spoil; time constraints; public access and scrutiny.

Expect references to well known urban excavations such as Roman London, Roman Colchester, Jorvik.

Rural: open field; shallower stratigraphy; different security issues; less developer pressure; less infrastructure. Expect references to Sutton Hoo, Boxgrove, etc. Best responses will realise that some rural is still rescue (Boxgrove initially); Orkney.

Question 8

Outline the methods archaeologists could use to recreate a past landscape, such as that surrounding the Roman site of Inchtuthil. (30 marks)

Use generic levels mark scheme

Indicative content

Responses are likely to concentrate on sites where students have seen landscape studies. Star Carr, Carlisle Northern Relief Road, Cranborne Chase, Shapwick, Time Team Mammoth Quarry, Boxgrove, Butser Ancient Farm, Orkney, Jorvik (Coppergate and Hungate). Methods are fairly easy to recall and are likely to be wide ranging, so ensure that the responses accessing the higher levels use specific examples to illustrate their ideas.

Methods could include: pollen cores; micro-faunal analysis; topographical analysis; site catchment; relating to on-site artefacts and ecofacts; interpretation of old maps & plans; computer aided design; web sites; relevant reports, books and journals; phosphate analysis is clearly linked to reconstruction of broader environment.

Question 9

Describe and explain the finds processing techniques, apart from dating, that would take place today on a site like Inchtuthil where there have been significant finds of iron nails, pottery, tile and glassware. (30 marks)

Use generic levels mark scheme**Indicative content**

Responses should consider sorting, washing, marking, visual analysis, categorisation, recording, relevant conservation/preservation.

Candidates are likely to focus on TV case studies (Time Team, Sutton Hoo, Meet the Ancestors) but expect excavation experience to be discussed.

Don't expect iron, pottery, tile and glass to all be considered in equal detail. Allow other metals. Although not expected, scientific techniques of analysis are permissible.

Accept both on-site and post-excavation techniques.

To gain top two marks in any level there must be some distinction made between the types of find.

Marking Grid

Question Number	AO1	AO2
7	10	20
8	10	20
9	10	20