Bilkent University
Manual for Hacımusalar Survey, 1999-2000

by: Pedar Foss, DePauw University
with: Kenny Morrell, Rhodes College
Kirsten Gay, Tübingen University & Elif Denel, Bryn Mawr College

PART I: FIELD SURVEY PROCEDURE

BASICS

(A) Each **Survey Team** should have at least 4 members; at least one should speak Turkish.

(B) The **Team Leader** will be in charge of: 1) recording all information, or of assigning the recording of data to others who have been sufficiently trained; 2) the collection and transport of artefacts back to base; 3) moving all team members safely across the landscape; 4) informing the Survey Directors of significant discoveries. Team Leadership will be established by the Directors, and may be subject to change.

(C) *It is absolutely imperative that <u>all</u> information about a field or site is recorded <u>at the time of survey</u>. Worksheets and Field/Site Logs should be filled out promptly and completely. Team Leaders can ask for help in this regard. If in doubt, write it down!*

(D) There will usually be at least 3 **Team Members** (Field Walkers), with the possible addition of specialists such as geologists, paleobotanists, etc. The size and make-up of each team will vary with the size of the field and the requirements of the day. Each participant shall have a standard, unique two-letter abbreviation for their name (e.g. initials), agreed upon in advance, recorded in the Field Logs, and listed with the Director. It is important to know who surveyed a field, in case we must call upon people's recollections of the material found there.

(E) Fields to be surveyed will be identified by the Directors; each team will use a separate running list of unused field numbers. Only directors will assign site numbers. Target fields will usually be grouped close together so as to minimize travel, but sometimes significant travel is necessary during the course of the day.

(F) The day's **schedule** will *approximately* be as follows (subject to change; 10 hrs. work):

|	
- 6:30 a.m.: bus leaves	- 1:00-1:30 p.m.: back to Elmalı on the bus
- 7:00-ca. 10:00 a.m.: survey	- 1:30-2:00 p.m.: lunch at Elmalı
- 10:00-10:30 a.m.: tea break	- 2:00-5:30 p.m.: çay, study & work (as below)
- 10:30 a.m.-1:00 p.m.: survey	- 8:30-9:30 p.m. (data entry, notebooks, finds / pottery processing)

REACHING A FIELD

(G) Upon reaching a target field, the Team Leader will assess its <u>availability</u>. If the field is fenced off, posted against trespassing, guarded by dogs, infested by bees, or if the owner or resident personally objects to the survey (even after a friendly explanation or presentation of permit), the field should be postponed. If possible, the Team Leader should note the nature or identity of the obstacle, so the Director can try to obtain access at a later date. **In no circumstances should the Team Leader hazard the safety of the Team in an attempt to survey**. In addition, *no field should be started if it cannot be finished that day*.

(H) Upon reaching a target field, the Team Leader will assess its <u>feasibility</u>. If the field is overgrown to the extent that artefacts will not be visible or collectible *(generally if visibility is < 60%)*, the field should be postponed. If it is unlikely that the field can be re-visited, however, a field with poor visibility may be surveyed at the Team Leader's discretion.

(I) *The Team Leader will be responsible for filling out the Field Worksheet fully and accurately,* based on the Leader's observations, the suggestions of Team Members, and the material actually collected from the Field. The Leader will have the final say on what is recorded, but should take into consideration variant opinions of Team Members, even to the point of recording those variant observations. In fact, the Leader should specifically question each Team Member to ask if they noticed anything interesting or significant about the Field, and note any responses with their initials. The Team Leader may also assign specific survey tasks to individual Team Members to facilitate efficient survey. Finally, the Leader, in consultation with the Team Members, will also decide whether to *recommend* to the Directors that a particular field contains a site or sites (the 'Recommendations' field).

(J) Prior to walking a field, **The Leader will draw a quick pencil sketch of field boundaries on graph paper in the Field Log notebook, labeling the sketch with the field number, date, Leader's initials, and north arrow;** *see the sample plan.* Significant topographical features (gullies, drainage ditches, modern roads, clumps of trees, etc.) should be located on this sketch. The Leader shall then assign transects to be walked by each Team Member, **noting the number, direction, and Team Member of each transect on the sketch plan**. Each transect shall have a unique consecutive number, per field.
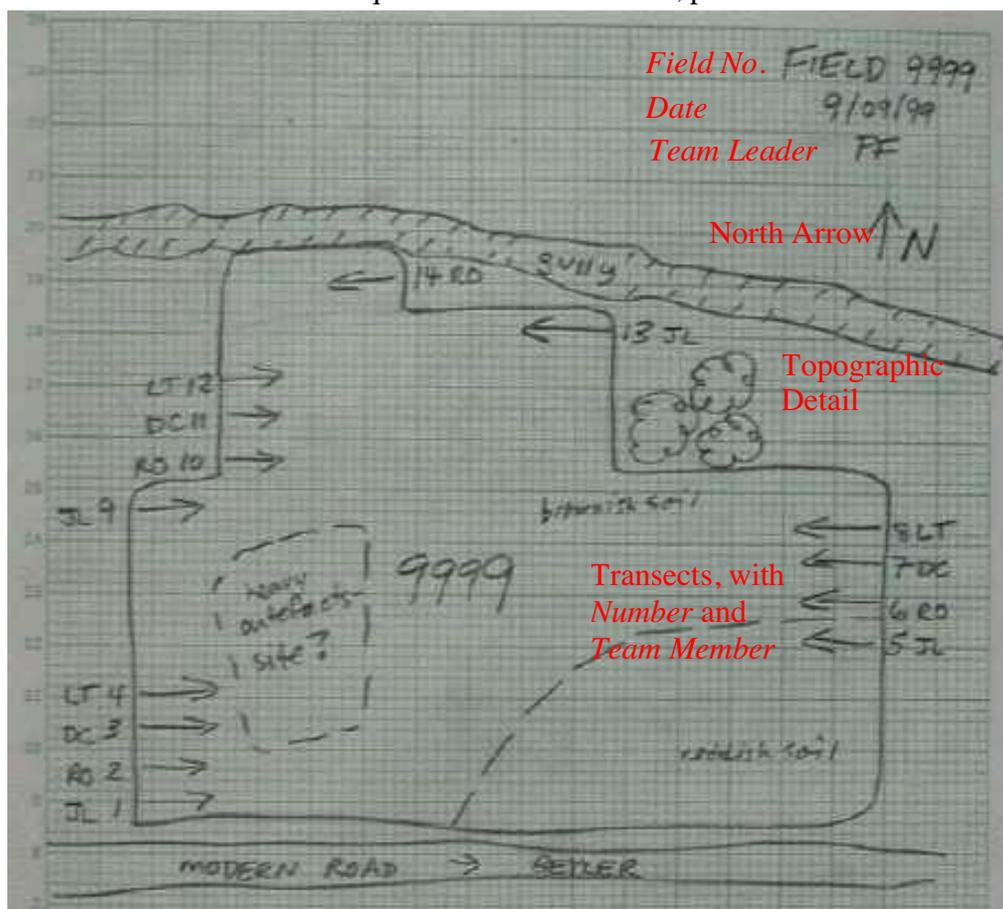
The Team Leader will also have to decide what *survey sample strategy* to use, described below: **standard, linear grab, random grab, point grab**, or **section**:

> **standard**: systematic linear total collection, as described below in sections L-N; preferred for any field on relatively flat or gently sloping cultivated ground, at 10-m. intervals or less. Collection according to transects. This is the *default* strategy.
>
> **linear grab**: relatively evenly-distributed line-up of fieldwalkers, asked to head across the terrain as best they can, while picking up all artefacts they see, at 10-20 m. intervals. Fieldwalkers should make about 2 passes: one up and one down. Used for rougher areas where there are no pre-defined field boundaries, and on steeply sloping terrain. Will need to use the 1:5000 topo grid sample maps as much as the GPS in order to geo-locate the 'field'. Collection is also organized according to transects.
>
> **random grab**: used on any field when a quick and easy collection is required. Should be used sparingly, and not as the final collection strategy for any field. Fieldwalkers spread out and collect what they can, esp. diagnostic wares (rims, handles, bases, and decorated wares). All finds are lumped together.
>
> **point grab**: used for a singular artefact of interest found outside regular transects during standard or linear grab collection, e.g., an object found by the GPS operator. Location should be noted/sketched in the Field Log, and may be specified by GPS.
>
> **section**: for artefacts found in the profile of a section in a ditch, scarp, gully, etc., located by GPS. If stratigraphy is present, additional notes, drawings and photographs should be taken. Usually done in association with one of the other collection methods.

(K) Each Team Member will be furnished with several empty plastic bags, string, and labels (2 per pag, one inside, and one outside). The Team Leader will be equipped with a Field Log with graph paper for both notes and sketch plans, Munsell Soil Color Chart, Soil Texture Chart, Field Visibility Chart, compass, tape, clipboard, and writing materials. The Directors will have the Photo Log, a Site Log for recording sites and grids, film camera, digital videocamera, topographic maps, the GPS, utility knives, and a First Aid kit.

DOING THE SURVEY

(L) The Team Leader will space the Team Members ideally at intervals of 10 m., starting ca. 2-3 meters from one edge of a field. Often the straightest edge of the field works best as a place to start. In some circumstances (such as orchards or vineyards) rows of plantings may force alternate intervals, and practical transect widths smaller than (but never larger than) the standard 2 m. to either side. *The Team Leader decides if alternate transect intervals or widths will be used, notes the interval or width, and explains why a different interval or transect width was used.*

(M) After spacing them out, the Leader should align Team Members towards their destination, making them consciously focus upon some landscape marker in the distance towards which they should walk. Members shall then walk to the other end of the field, travelling at a steady, comfortable pace, and **collecting all artefacts visible in a swath of 2 m. on either side, while maintaining the pace**. Try to keep in line and properly spaced with the other Team Members; do not stop in one place for more than a few seconds. Look out not only for pottery and tile, but for lithics, coins, metal, glass, bone, and other objects. **Shout out when you find an object: sherd! bone! glass! lithic! so your comrades and the Team Leader get a dynamic sense of the density of finds.**

If you begin to notice an increase in finds, put down a flag and continue on, placing a second flag when the density decreases again. This will help us determine the perimeter of the area if it is identified as a site. Do not collect very recent materials such as tin cans, but if in doubt about an object, collect it; we can always discard it later. Collect all pottery and tile in one or more bags, *and small finds in a smaller, separate bag*. In fields with particularly dense artefact scatters, the idea is not to collect everything, but to maintain a rate of pace and collection consistent with that on fields with more sparse distributions. The procedure must remain similar for all fields, to ensure comparable results.

(N) At the end of each transect, each Team Member should **tie up each bag** of artefacts, and **label it, in marker, with the field number, transect number, date, and initials of the Team Member**. Twist the plastic neck of the bag and, pierce the bag with the wire, and wrap the wire ends of the tag tightly around the neck. It is IMPERATIVE that bags not lose their tags.

<table>
<tr><td colspan="2">**HACIMUSALAR SURVEY**</td></tr>
<tr><td></td><td>Field/Site:_____ Transect/Sector:___</td></tr>
<tr><td>◯</td><td>Registry#:_____</td></tr>
<tr><td></td><td>TeaM:_____ Date (m/d/y):_____</td></tr>
<tr><td></td><td>Notes:_____</td></tr>
</table>

Place the bags in your knapsack and prepare to walk the next (differently numbered) transect back. The 'insidemost' Team Member on each course across the field will put down two **flags**, one at the start, one at the end of their course, to help orient the Team's walk back across the field. The Team Leader can also help orient the team on their return course. Each Team will have sufficient flags for this purpose (pick them up before you leave the field!). **Wait for all Team Members to start the next set of transects together**, and follow the same procedure. This will synchronize the pace of collection. Accumulated bags can then all be dropped off at one end of the field for easy transport to the vehicle. Continue until the entire field has been walked, then gather all bags of labeled material and carry them to the

vehicle. The Team will sort, count, weigh, wash, re-bag and re-tag the artefacts back at base. Clickers will help with counting back at base.

The Leader must ask the Team members after every pass (or pass and return) which transects contained NOTHING at all. The Leader will then record a zero in each appropriate Transect Summary box for #Pot, and cross out the remaining entries to the right. This will serve to check that all of the bags of material collected in the field were actually brought back to base.

(O) While the Team is walking the field, the Team Leader shall refine the sketch plan of the field, indicate its numbered transects, and make sure that the person with the GPS unit records the perimeter of the field, the ends of each transect, and any significant concentrations within the field. At base, The Team Leaders and the Directors will synchronize the field data with the GPS data. Finally, after consultation with the Team, the Leader should mark and describe on the sketch approximate boundaries of any material concentrations that may indicate sites. The GPS operator should take B&W record shots, with the automatic **camera**, of every field and any notable features or finds, because that person visits all fields walked. See the document on GPS procedure for more details. A Director or Team Leader will also be responsible for recording fields (in motion and as digital stills) with the **digital video camcorder**; that assignment will be flexible.

*Note! As a general rule, all sketches should be done in **pencil**, and all descriptions and forms should be marked with **pens**; tags must be marked with Sharpie permanent markers.*

Hacımusalar Höyük

Field Boundaries that have been collected by GPS and synchronized with Transects using Microstation and ArcView
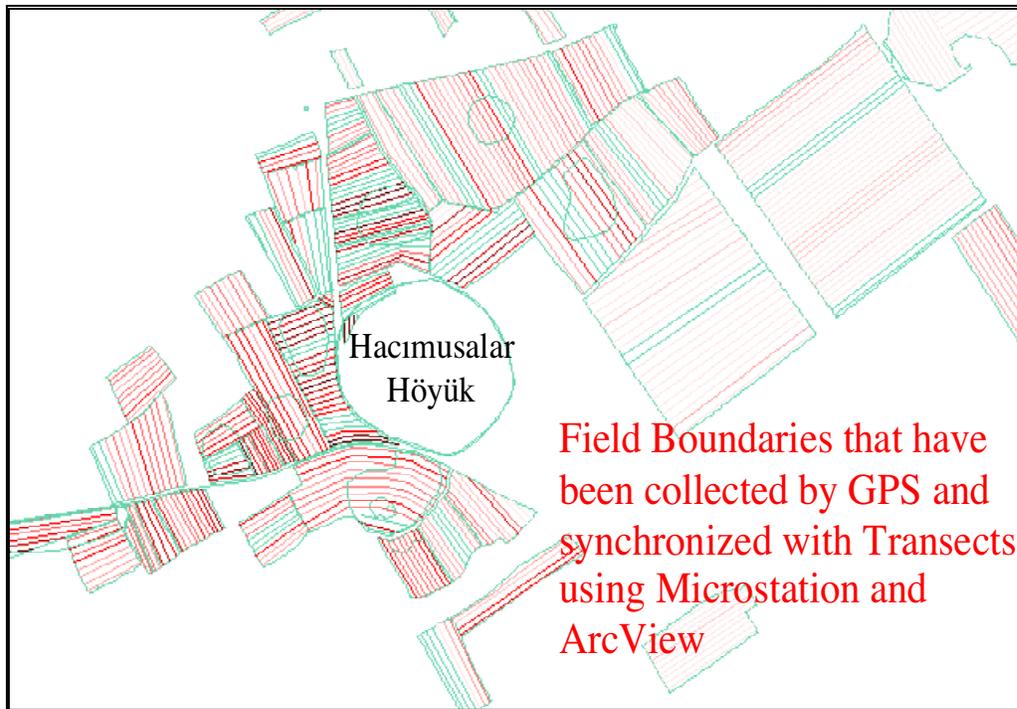
(P) Back at base in the afternoon, Team Members will be responsible for processing pottery and finds. They will wash the material collected that day, and process the material from the day before. The Team Leaders will complete and augment all worksheets, plans, and notes for that day, and brief the Director. **It is essential that no pottery, no finds, and absolutely no paperwork be left for the next day.** The Directors will assist in all aspects of the survey, and will monitor procedure and paperwork.

(Q) If any Team Member is having difficulty, offer assistance. Everyone must carry plenty of water; 3 liters per day is recommended. Long pants and gaiters are also recommended, as the Survey often covers rough terrain. Wear sunscreen and a hat. If you feel ill, please ask for a break; if you feel seriously ill, we will take you back to Elmalı. Please work together, ask questions, bring up problems, and suggest solutions. Be active and have fun when surveying; keep your mind sharp, and you may discover an important new site!

DEFINITIONS:
Field: any unit of territory distinguishable, through its features or boundaries, from another unit of territory, such that it can be surveyed as a whole. Usually marked by modern agricultural or property lines.
Site: any locus of ancient human activity in the landscape, large or small, brief or of long duration, that has left discernible traces that can be clearly defined and distinguished from its immediate surroundings, as proved by clear and sufficient evidence. A site may be a village, a road, a farmhouse, a villa, an inscription, a tomb, a well, or just a concentration of artefacts, etc. You usually "know it when you see it" while field-walking, because the features of a site stand out from its context.

PART II: SITE SURVEY PROCEDURE

There will be much similarity in organization and procedure between surveys of fields, and surveys of sites. One may consult the Field Survey Procedure document concerning general issues.

SURVEYING A SITE

(A) A Site, unlike a Field, may have to be surveyed over several days, in order to collect enough data to determine the length and nature of human activity. In order to eliminate 'redundant discovery', the same team should survey the site through to its completion unless specialists are required. Even if we find a site in one season, we may wait to do a sector survey of that site until it has been plowed again, in order to get new information.

(B) The first task is to determine its geographical extent. The Team Leader should begin a general site plan in the Site Log or on a larger piece of graph paper, and with the help of the team, use the GPS to determine site boundaries (as best they may be determined). In other words, Team Members should spread out to find the boundaries (based on previous placement of flags marking dense clusters, general observation of artefact frequency or by more substantial remains, and then help direct the Leader and/or GPS to move around the edges of the site and plot its boundaries. The Leader should also indicate, on the plan, significant topographical features or contours on or near the site.

(C) The Leader ought then to direct the team to search out any structures or other permanent features on the site, of which the Leader or other team members can then sketch rough plans, fixing their positions on the larger site plan, and locating them with the GPS.

(D) Once the extent of the site has been determined, and its extant features plotted, the Leader should (if applicable) assign specific features to individual Team Members, so that the Members may begin written descriptions, sketches, or photographs of those features. These individual descriptions may be written on ordinary notepads, with transcription into the Site Log reserved for time back at base. The main point of these initial descriptions is to assess the state of the site (and its stability, i.e., the threat to its continued existence), and to identify features of the site that deserve further work, such as a scale site plan, the drawing of

architectural or artistic elements, the transcription of inscriptions, geophysical prospection, archeobotanical samples, or systematic artefact collection (sectoring).

*Note! As a general rule, all sketches should be done in **pencil**, and all descriptions and forms should be marked with **pens**; tags must be marked with Sharpie permanent markers.*

(E) If the nature of the site is amenable, a systematic total collection of surface artefacts should be carried out. On large or particularly dense sites, however, the sectors sampled may have to be randomly determined, so as not to overburden processing, and also to compare results with sites that underwent total collection. This can be carried out in several ways which are described below: **grid, radial, linear, random-grab, point-grab,** and **section**. *Except for the random-grab, the material from each sector <u>must</u> be bagged and tagged separately! For a random-grab, no sector needs to be listed on the tag.*

It is not necessary to sector the entire site (unless it is small and easily carried out), but if sectoring is to be attempted, at least 60% of the site should be included. Use the GPS as the measuring device; it is now accurate enough to sector a site. The size and shape of sectors will depend on the size and topography of the site.

grid: Common options include grids of 5 and 10 m, centered on the putative 'center' of the site, as best it can be determined. The smaller the grid, the more time it will take to lay out and collect the data, but the more detailed the data will be; the Leader must consider cost vs. benefit. Lay out the grid with compass and tape (using GPS to locate the corners), or just with GPS. The Team Leader should draw a separate grid map, with all grid squares shown, and identified by coordinates in which consecutive letters (A, B, C...) shall mark the x-axis, and consecutive two-digit numbers (01, 02, 03 …) mark the y-axis. All surface artefacts shall then be vacuumed separately in each square, and each square bagged separately (tagged with their grid coordinates, the site number, date and Team Member) filled with pottery, tile, and other artefacts, to be sorted, counted and weighed back at base.

radial: A peg is set at the 'center' of the site, and lines are set out to the edge every 45 degrees (8 'wedges'), with marks every 5 or 10 m. defining sectors that are vacuumed separately for artefacts, as in the 'grid' system above. This method is faster than gridding, but resolution fades from the center outward, as the size of the sectors increases. the total length of the lines from the center must be noted, so as to calculate the sizes of individual sectors. Each wedge is lettered from A-H, with sectors numbered starting at 01 from the center outward.
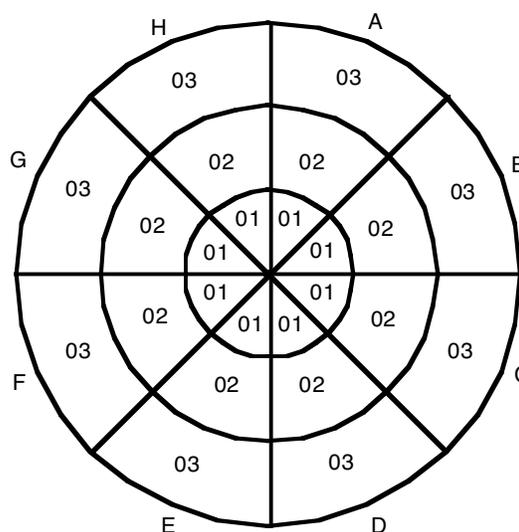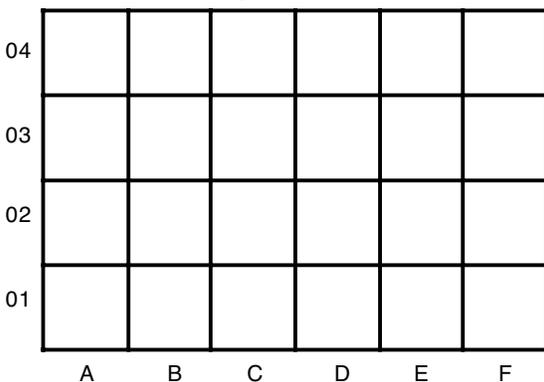
linear: A finer version of standard fieldwalking, with walkers spaced in parallel every 2-4 m. collecting everything in their immediate path. Artefacts are organized by transect, and the whole area collected must be marked along the perimeter with the GPS. An *optional* second pass on a perpendicular axis *may* provide both 'x' and 'y' resolution. Faster than grid or radial, and easier to use on rough or steep terrain, but poorer as regards spatial differentiation. Three-digit letters/numbers need to be used for labeling sectors, in order to maintain the integrity of database relations and searches.
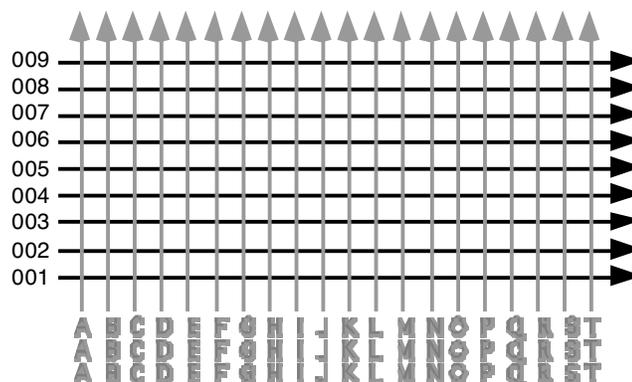
random-grab: used on any site when a preliminary collection is required. Should be used sparingly, and not as the final collection strategy for any site. Fieldwalkers spread out and collect what they can, esp. diagnostic wares (rims, handles, bases, and decorated wares). All finds are lumped together.

point-grab: used for a singular artefact or clearly-distinct set of artefacts found outside regular sectors, on the edge of a site, or even during a different survey season. Location noted/sketched in the Site Log, and by GPS.

section: for artefacts found in the profile of a section in a ditch, scarp, gully, etc., located by GPS. If stratigraphy is present, additional notes, drawings and photographs should be taken. Usually done in association with one of the other collection methods.

(F) At a site, the goal will be to collect as much data, as accurately as possible, within a reasonable time frame. For small sites, 1 hour should be sufficient, but larger sites may take a whole morning. If a Team Member is in doubt about whether to record a particular observation at the site, they should err towards inclusion, rather than omission. But on the other hand, Team Members should not attempt scale drawings of architectural facades without the proper equipment or training. If the site recommends it, specialists can always return to record the site in greater detail.

PART III: RECORDING PROCEDURE - Field Worksheet

This sheet is intended to explain some details of the Field Worksheet. Most of the Worksheet should be self-explanatory. Use the back of the Worksheet and/or the Field Log if you need extra space for descriptions or questions. When in doubt, record what you can and then report the problems back to the Director. Fields are listed in order of their entry into the database. Fields marked with an asterix (*) MUST be filled out in the field.

LOCATION

*Field: A unique 4-digit number, from 1000-9999. Each survey team has a set of available numbers (in packets of hundreds) which they can use.

*Date: The format is Month/Day/Year. If the Field is surveyed over more than one day, the first working day should be listed. Daily entries should then follow in the Field Log.

*Start/End time: The time from when the Team arrives at the field, to when it leaves. 24-hour format.

Includes Sites: Leave blank in the field; to be filled in later by the Director.

Elevation: Always 'meters above sea-level' at the center of the field. Estimate this figure from the elevations provided by the GPS, back at base.

Georeference, E/N: UTM/UPS map coordinates (European 1950 datum, following the 1:25,000 Turkish maps) of the center of the field, format: [map sheet (normally 35S)]-[9 digit East coordinates]/[9 digit North coordinates], e.g., 35S-075376400/405976200. These coordinates provide resolution to the *centimeter*. The coordinate breakdown is :

35 S | 07 | 53 | 764 | 00 = Grid Zone | 100,000 m. square | 1 km. square | m. | cm.

*% Visibility: A careful estimate of the average % of actual soil visible through ground cover, from a standing position looking down. *Do not survey a field if visibility is less than 50%*. Use the provided Visibility Chart, on which the black spots indicate obscured ground.

Find	Find All	Sort	New	Record	Print

Hacımusalar Survey — FIELD WORKSHEET

Date (US format) Date   **Includes Sites** Incl sites   **Field** (4 digits) Field

Start time Start time **Elevation** llevatic **Georeference, E/N** (zone[3]-east[9]/north[9]) GeoreferenceEN   **% Visibility** Visibilit

End time End time **Transect spacing** nsect sp **Width** nsect w **Area (ha)** TotArea **Perimeter (km)** Perimeter

TRANSECT SUMMARY — Team Leader: Team...   ! use another sheet for additional transects (over 27)!

Sample	TeaM	Tr#	Len.	#Pot	WtPot	#Tile	WtTile	#Oth	Finds	Chronology
::sample	::TeaM	ect#	length	::#Pot	::Wt.Pot	::#Tile	::Wt.Tile	#Othe	::Other	::Chronsum

field

Field	Raw	TLength	T#Pot	TWt.Pot	T#Tile	TWt.Tile	#Other	Totals

STANDARD DENSITY otPotNo TotPotWl tTileNo otTileWl tOthNo **TOTALS**

DENSITIES /ha. (10K m2): Dens.#Pot ns.Wt.Po Dens.#Tile ns.Wt.Tile ns.#Other

#Pot   Wt.Pot   #Tile   Wt.Tile   #Finds

CHRONOLOGY SUMMARY

Chronology

ENVIRONMENT

Slope
- O Level (0-2°)
- O Gentle (2-15°)
- O Moder. (15-30°)
- O Steep (>30°)

Drainage
- O Dry
- O Moist
- O Wet
- O Waterlogged

Ground cover
- ☐ Woodland
- ☐ Orchard/Grove
- ☐ Cereals/Veggies
- ☐ Vines
- ☐ Grasses/Pasture
- ☐ Scrub/Maquis
- ☐ Stubble/Weeds
- ☐ Plowed
- ☐ Other

Topography
- O Mountain-slope
- O Hilltop
- O Hill slope
- O Ridge
- O Valley slope
- O Basin slope
- O Plateau
- O Artificial terrace
- O River terrace
- O Valley floor
- O Basin floor

Geomorphology

Geomorphology

Docno.	Archive	View/Descript.
::docno	::archive	::view descriptic

HAC.doclink

Soil composition: hardness, color, texture, inclusions, condition

Soil composition

Remains

Remains

Recommendation

Recommendation

*Transect spacing, Width: Normally 10 m. and 4 m.; only to be altered because of local conditions (e.g. orchards, or limited visibility), by the Team Leader.

Total area (ha): In hectares, calculated by the GPS software and entered later back at base.

Perimeter (km): In kilometers, calculated by the GPS software and entered back at base.

*Team Leader: Be sure to fill in with the Leader's initials.

TRANSECT SUMMARY

Many of these fields are filled in back at base, after the Team has counted and weighed (in kgs.) the contents of the field, per transect. But be sure to select the ***Sample** strategy from the pop-up menu (see above for details), and write in the ***Team Member** initials for each transect. The **Length** (Len.) for each transect will be calculated after each transect is drawn in Microstation. The **Finds** and **Chronology** summaries are imported from the Transect database. Leave the **Totals** and **Densities** at the bottom blank; the computer will calculate the values of those fields automatically.

Chronology Summary: Summarized from the 'Chronology' field for the transects. This is likely the last field filled out on the sheet.

ENVIRONMENT

*Slope, Drainage, Topography: Check only one of the options. If explanation is necessary, write on the back on the Worksheet or in the Field Log.

*Ground cover: Check as many of the types of ground cover that occupy the field. If explanation is necessary, check 'Other' and write on the back on the Worksheet or in the Field Log.

*Geomorphology: Briefly describe the basic geological/pedological formation of the Field terrain/soils as best as you are able. The main options are: **colluvial** (gravity-caused erosion and decay down mountain- and hill-slopes), **alluvial** (river and drainage-borne sediments), and **lacustrine** (lake sediments). A geologist will later augment this information.

*Soil composition: Briefly describe the soil formation and composition of the Field as best as you are able. Include **hardness** (hard, soft, loose?); **color** (Munsell number and name, with the reading taken on sub-surface soil in the shade); **texture** (use the provided Soil Texture chart by rubbing a handful of soil between the fingers and estimating the relative percentages of *sand* (hard and granular), *silt* (soft and grainy), and *clay* (no perceptible grains); **inclusions** (relative amounts, sizes, and angularity of stones [pebbles, cobbles, and boulders]); **condition** (agricultural condition, e.g.: plowed / disked / harvested / eaten down by animals / plowed and grown up in weeds). A soil scientist will later augment this information.

ARCHAEOLOGY

> ***Remains**: Briefly describe any standing buildings (ancient or modern) in or on the edge of the field, any ruins, and any unusual finds or concentrations from the survey collection. Such information may lead to a 'Site' designation.
>
> ***Recommendation**: Provide the opinion of the Team and Team Leader as to whether this field contains one or more sites, and any other comments relative to the condition of the field such as the necessity of a return visit, or the danger of a site being obliterated by modern activity. If the field contains nothing of interest, simply write: 'no further action'.
>
> **Documentation**: Entered in the 'Docs' database, and linked through to this database.

PART IV: RECORDING PROCEDURE - Site Record

This sheet is intended to explain some details of the Site Record. Most of the Record should be self-explanatory. Use the back of the Record and/or the Site Log if you need extra space for descriptions or questions. When in doubt, record what you can and then report the problems back to the Director. Fields are listed in order of their entry into the database. Fields marked with an asterix (*) MUST be filled out in the field.

LOCATION

*Site: A unique 3-digit number, from 100-999. Site Numbers are usually distributed according to how they were found. If found on the Intensive Survey, it is recorded in the Survey Log, and the list begins with 100 (which is Hacımusalar Höyük). If found by Extensive Survey, it is recorded in the Director's Notebook, and the list begins with 800.

*Site name: If a local topographical name or a convenient label can be associated with the site, enter it here.

*in Fields: List all fields in which this site is located; be sure to update this field if part of the site initially fall into unwalked fields with no numbers.

*Date: The format is Month/Day/Year.

Elevation: Always 'meters above sea-level' at the center of the site. Estimate this figure from the elevations provided by the GPS, back at base.

Georeference, E/N: UTM/UPS map coordinates (European 1950 datum, following the 1:25,000 Turkish maps) of the center of the site, format: [map sheet (normally 35S)]-[9 digit East coordinates]/[9 digit North coordinates], e.g., 35S-075376400/405976200.

*% Visibility: A careful estimate of the average % of actual soil visible through ground cover, from a standing position looking down. *Do not survey a site if visibility is less than 50%.* Use the provided Visibility Chart, on which the black spots indicate obscured ground.

Site area (ha): In hectares, calculated by the GPS software and entered later back at base.

Perimeter (km): In kilometers, calculated by the GPS software and entered later back at base.

*Location and orientation: Describe how to find this Site, and describe its relationship to nearby topographical features, other ancient sites, modern villages or structures, roads, etc. Also provide a compass reading for the topographical aspect of the site, i.e., which way it faces, if it *has* a particular aspect.

*Site condition: Check all that apply. If the Site is in immediate danger, please explain on the back or in the Site Log.

*Location method: Check all that apply. If 'Other', provide an explanation on the back or in the Site Log.

Site use(s): After the site has been fully investigated, list possible functions of the site, e.g.: farm, village, villa, cemetery, quarry, industrial area, fortress, etc.

*Team Leader: Be sure to fill in with the Leader's initials.

| Find | Find All | Sort | New | Record | Print | **Hacımusalar Survey — SITE RECORD** |

Site name Site name_____ **in Fields** Fields_____ **Site** Site no

(3 digits)

Date (US format) Date_____ **Elevation** Elevatio **Georeference, E/N** (zone[3]-east[9]/north[9]) GeoreferenceEN_____ **% Visibility** Visibili

Describe location and orientation
Location_____
_____
_____
_____

Site condition
- [ ] Artefacts visible in a section
- [ ] Artefacts on surface
- [ ] Site is disturbed
- [ ] Site is threatened
- [ ] Site has been excavated

Site area (ha) Site area **Perimeter (km)** Perimeter

Location method (check all that apply)
- [ ] Historical source
- [ ] Standing remains
- [ ] Local informant
- [ ] Intensive survey
- [ ] Extensive survey
- [ ] Other

Site use(s)
Site use

SECTOR SUMMARY — Team Leader: Leader   ! use another sheet for additional sectors (over 26)!

Sample	TeaM	Sectr	Area	#Pot	WtPot	#Tile	WtTile	#Oth.	Finds	Chronology
::sample	::TeaN	::Sect	::Sect	::#Pot	::Wt.Pot	::#Tile	::Wt.Tile	::#Othe	::Other_____	::Chronsum_____

HAC sectors

Site	Raw	Gridded	T#Pot	TWt.Pot	T#Tile	TWt.Tile	T#Other	**Totals**
STAND. DENSITY			tPotNo	TotPotWt	TTileNo	TotTileWt	tOthNo	**TOTALS**
DENSITIES/ha.:			Dens.#Pot	ns.Wt.Pot	Dens.#Tile	ns.Wt.Tile	ns.#Other	
			#Pot	Wt.Pot	#Tile	Wt.Tile	#Finds	

CHRONOLOGICAL SUMMARY
Chronology_____

Environment/Geophys. sampling, prospection
Enviro-Geo sampling

Previous work - summarize and reference
Previous work_____

Docno.	Archive	View/Descript.
::docno	::archive	::view_descriptio

HAC doclink

Description (especially of remains and chronologically distinct scatters)
Description of remains

Recommendation
Recommendation

SECTOR SUMMARY

> Many of these fields are filled in back at base, after the Team has counted and weighed (in kgs.) the contents of the site, per sector. But be sure to select the *Sample* strategy from the pop-up menu (see above for details), and write in the *Team Member* initials for each sector. The **Sectr** number will be the alphanumeric designation for the sector, as determined by the sampling strategy, (e.g, A09, B01, 007, or FFF - refer to the diagrams above). The *Area* for each sector will be calculated after each is drawn in Microstation. The *Finds* and *Chronology* summaries are imported from the Transect database. Leave the *Totals* and *Densities* at the bottom blank; the computer will calculate the values of those fields automatically.

Chronology Summary: Summarized from the 'Chronology' field for the sectors. This is likely the last field filled out on the sheet.

ENVIRONMENT and ARCHAEOLOGY

Environ./Geophys.: Describe briefly any Environmental studies (soil cores, phosphate analysis, paleobotanical studies, microsedimentology, etc.) or geophysical prospection (magnetometry, resistivity, etc.) carried out at the Site.

Previous work: Summarize references and work done by previous scholars at the site, if any.

Description: Describe in all possible detail the ancient and modern features of the place that make it a site; this report should be coordinated with the Site Log, where there is more space for description, plus graph paper for a general sketch of the site, its coordinates, and any sectoring carried out. Describe if artefacts of recognizably similar date are concentrated in distinct portions of the site. Also indicate these on the plan.

Recommendation: What further work ought to be done at the Site? Is it in danger, is it worth excavating or geophysical prospection, carrying out architectural surveys, etc.?

Documentation: Entered in the 'Docs' database, and linked through to this database.

PART V: DOCUMENTATION DATABASE

The Field Worksheet and Site Record are the primary recording sheets of the survey, but represent only 2 of the 8 databases. For instance, **Documentation** is entered in the 'Docs' database, using the following formats for various media:

Docno FORMAT (12): **[roll.frame]** PD600.01.jpg (photo-digital), BW100.01.jpg (B&Wprint), CS200.01.jpg (color slide), CP300.01.jpg (color print); **[yr.number]** DA98.001.jpg (drawing-arch.), DC98.001.jpg (drawing-ceramic), DF98.001.jpg (drawing-finds), QT98.001.mov (QTVR), MV98.001.mov (finished movie); **[bk#.page range]** FL01.001-002 (FL=Field Log; SL=Site Log; ND=Notebook-Director's); **[yr.reel-starting time]** V99.01-59:99 (Digital Video Log: duration of the clip may be listed in the Archive field)

| Find | Find All | Sort | New Record | Print | **Hacımusalar Survey — DOCUMENTATION** |

Docno FORMAT (12): **[roll.frame]** PD600.01.jpg (photo-digital), BW100.01.jpg (B&Wprint), CS200.01.jpg (color slide), CP300.01.jpg (color print); **[yr.number]** DA98.001.jpg (drawing-arch.), DC98.001.jpg (drawing-ceramic), DF98.001.jpg (drawing-finds), QT98.001.mov (QTVR), MV98.001.mov (finished movie); **[bk#.page range]** FL01.001-002 (FL=Field Log; SL=Site Log; ND=Notebook-Director's); **[yr.reel-starting time]** V99.01-59:99 (Digital Video Log: duration of the clip may be listed in the Archive field)

Docno		(field/site.transect/sector.regno) **Date made**	**GeoreferenceEN**	**Elev.**	**Orient.**
CS200.24.jpg	**ID#s** 1006	7.31.97	35S-075381500/406088500		180°
Archive	(>1 for 100 group shots)	**View/Description** S view of Hacimusalar from Çatal Tepe			
Docno		(field/site.transect/sector.regno) **Date made**	**GeoreferenceEN**	**Elev.**	**Orient.**
CS200.25.jpg	**ID#s** 1006	7.31.97	35S-075381500/406088500		180°
Archive	(>1 for 100 group shots)	**View/Description** view of Hacimusalar from Çatal Tepe			

| Find | Find All | Sort | New Record | Print | **Hacımusalar Survey — DocLink** |

Docno FORMAT (12): **[roll.frame]** PD600.01.jpg (photo-digital), BW100.01.jpg (B&Wprint), CS200.01.jpg (color slide), CP300.01.jpg (color print); **[yr.number]** DA98.001.jpg (drawing-arch.), DC98.001.jpg (drawing-ceramic), DF98.001.jpg (drawing-finds), QT98.001.mov (QTVR), MV98.001.mov (finished movie); **[bk#.page range]** FL01.001-002 (FL=Field Log; SL=Site Log; ND=Notebook-Director's); **[yr.reel-starting time]** V99.01-59:99 (Digital Video Log: duration of the clip may be listed in the Archive field)

Docno	**IDno**	**Archive**	**View/Description**
CS200.24.jpg	100		S view of Hacimusalar from Çatal Tepe
CS200.24.jpg	1006		S view of Hacimusalar from Çatal Tepe
CS200.25.jpg	100		view of Hacimusalar from Çatal Tepe
CS200.25.jpg	1006		view of Hacimusalar from Çatal Tepe
CS200.26.jpg	1006		NW south end of the south hill

But since multiple units (fields, sites, transects, sectors, etc.) can appear in the same document (a photo, drawing, etc.), a multiple-entry '**IDs**' field connects to the 'Doclink' database, allowing for a single-multiple relation between the two databases and permitting searches and printouts of *either documents or the units recorded in the documents*. An **ID** can be a field or transect number (e.g. 1014; 1014.03), a site or sector number (e.g. 105; 105.A06), or a Registry Number (e.g. 1002.04.101). If the document merely refers to the Elmalı Basin generally, write 'general' in the ID field. **GeoreferenceEN** takes the same format as that field for a Field or Site (see above). **Elevation** is the average altitude (m.) of the feature(s) documented. *Orientation* refers to the compass direction in which a photo was taken, for instance; this field applies only to still photos/sketches.

PART VI: RECORDING PROCEDURE - Transect and Sector Summaries

While these databases serve the most basic geographic units of collection and recording of material, they are largely composed of information **'portalled'** (brought in) from other databases. Records in the database, identified by unique Field+Transect or Site+Sector numbers, are automatically created when transects are entered in the Field Worksheet and sectors in the Site Record.

The only fields in the top half that require entry are the Periods of Use Summary and the Finds Quick List. The **Periods of Use Summary** is a manual listing of the most secure dates from *both* the small finds and ceramics portalled in the lists below. One must convert them into the general period designations listed to the right (those period designations should be seen as flexible; they will probably not be decided upon in final form until the end of the project, but they provide a useful guide at present). This allows for both the application of date-ranges by the materials experts, and the necessary grouping of dates into roughly historical periods. The **Finds Quick List** summaries the material and function of the small finds listed from that transect. Both of these fields are then portalled into the Field Worksheet or Site Record, into the *Finds* and *Chronology* fields, so as to provide summaries of this important data on those forms.

Find | **Find All** | **Sort** | **New Record** | **Print**   Hacımusalar Survey: Sector Summaries

Periods of Use Summary [finds and ceramics]:

Chronsum

complete?
- ☐ finds
- ☐ tile
- ☐ pottery

Site+Sector SiteSect
(3 digits.3 digits)

#Pot.	Wt Pot.	#Tile	Wt Tile	#Finds
#Pot	Wt. Pot	#Tile	Wt. Tile	#Other

DENSITIES Dens#Pot | ens Wt Pot | Dens #Tile | ens Wt Tile | ns #Other

Finds Quick List:

Other

Site	Sector	Sample	TeaM	Area
Site	Sector	sample	TeaM	ector are

SUMMARY OF SMALL FINDS

Registry#	#	Material	Function	Dates ["-"=BC]	Description
::Registry#	::n	::Material	::Function	::StartDat to ::EndDate	::Description

SUMMARY OF DATABLE CERAMICS

Registry#	Ware	Form	Type	Dates ["-"=BC]	
::Registry#	::ware	::form	::type	::StartDat to ::EndDate	

U Paleolith. 60-12k BC	E Hellenistic 331-167 BC
Mesolithic 12-8k BC	L Hellenistic 167-85 BC
Neolithic 8-5.5k BC	F Hell/E Rom 185BC-AD14
Chalcolithic 5.5-3k BC	E Roman II · AD 14-75
E Bronze 3-1.9k BC	E Roman III · AD 75-150
M Bronze 1.9-1.5k BC	M Roman AD 150-267
L Bronze 1.5-1.1k BC	L Roman I AD 267-500
E Iron 1.1-850 BC	L Roman II AD 500-670
L Iron 850-700 BC	E Byzantine AD 670-1176
E Archaic 700-600 BC	E Turkish AD 1176-1550
L Arch/Pers 600-480 BC	L Turkish AD 1550-1900
Class/Pers 480-331 BC	Modern AD 1900-

Docno.	Archive	View/Descript.
::docno	::archive	::view description

Preliminary Ceramic Processing

The bottom half of both databases, however, records the preliminary processing of ceramics, in a format that is compatible with the ceramic processing for the excavation at Hacımusalar Höyük (only the Field+Transect screen is shown below; the Site+Sector screen is identical):

Preliminary Ceramic Processing (counts)   ☐ registry bag?   **Field+Transect** FldTrs

thin

	RIM	HANDLE
open	tnrimop	tnhand
closed	tnrimcls	
?	tnrimot	

	BASE		BODY
open	tnbase	open	tnbodo
closed	tnbase	closed	tnbodo
?	tnbase	?	tnbodo

HAND	WHEEL	MOULD
tnhand	tnwhee	tnmoul

medium

	RIM	HANDLE
open	mdrimo	mdhan
closed	mdrimo	
?	mdrimo	

	BASE		BODY
open	mdbas	open	mdbod
closed	mdbase	closed	mdbod
?	mdbas	?	mdbod

HAND	WHEEL	MOULD
mdhan	mdwhe	mdmou

thick

	RIM	HANDLE
open	tkrimop	tkhand
closed	tkrimcls	
?	tkrimot	

	BASE		BODY
open	tkbase	open	tkbodo
closed	tkbase	closed	tkbodc
?	tkbase	?	tkbodo

HAND	WHEEL	MOULD
tkhand	tkwhee	tkmoul

Preliminary IDs (wares, represented periods, etc.)   **Reader(s):** Readers

prelimIDs

The procedure for preliminary processing of pottery is as follows:

1. Bag and tag all ceramics (and finds) according to transect or sector in the field, bring them back to base, and wash them that same afternoon.

2. The next afternoon, sort the previous day's washed ceramics into pottery and tile. Weigh pottery and tile separately according to transect, using one of the 3 spring scales. Record the *weight for pottery and the weight for tile* in the appropriate boxes on the Field Worksheet or Site Record. Count the *number of tile fragments*, and record the number in the appropriate box on the Field Worksheet or Site Record. Bag the tile separately and set it aside until Step 8 below. You may use the clickers to help with any of the counting during the entire process. Note: the pottery count will be added up automatically by the computer. *Be sure to note the initials of the persons reading the pottery in the **Reader(s)** box.*

3. Lay out the pottery on the sorting table (mirrored by the diagram in the database above), and divide it into **thin**, **medium**, and **thick** categories, based on wall thickness. 'thin' is less than ca. 0.5 cm.; 'medium' falls between 0.5 and 1.0 cm., and 'thick' is generally more than 1.0 cm. These numbers are not absolute; they only serve as guides; *ask* if you are unsure where a sherd belongs.

4. Within each category of thin, medium, and thick, sort the sherds into *manufacture*-groups: **Hand-made** (e.g., punch, pressed and coil-made, etc.), **Wheel-made** (look for the regular ridging, usually on the interior, of wheel-marks!), and **Mould-made** (mass-produced copies from a single mould or series of moulds). Manufacture provides a rough chronological index; hand-made period appears in the Early Bronze Age (but afterwards as well, especially with large storage vessels), Wheel-made pottery appears towards the end of the Early Bronze Age and is the most common type of manufacture thereafter; Mould-made pottery appears commonly in finer wares of the Hellenistic and Roman periods. *Count and record* the manufacture-groups for thin, medium, and thick sherds. All sherds must be placed in one of these groups.

5. Then, within each category of thin, medium, and thick, sort out recognizable *parts* of vessels: **rims** (including necks and spouts), **handles**, **bases** (including feet, stands, and toes), and the rest (**body** sherds).

6. Further sort the rims, bases and body sherds into examples of **open** vessels (the interior of the vessel was visible and easily accessible; interior sometimes treated with paint, slip, etc.) and **closed** vessels (the interior of the vessel was not easily visible or accessible; interior *not* treated with paint, slip, etc.). This division can help us interpret function. If it is not possible to tell whether a sherd belonged to an open or closed vessel, put it in the '**?**' pile. Note: it is difficult to tell whether handles came from open or closed vessels. Simply count the handles and enter the numbers in the boxes provided. *Count and record* the numbers for all 10 piles in each category of thin, medium, and thick. *Be sure to record zeroes as well, by crossing out the box.*
    At this stage, all of the boxes should be filled!

7. If there are any sherds that are likely to be diagnostic for date, function, or origin (including parts such as rims, handles, and bases, and sherds with distinct surface treatment or decoration such as burnishing, slips, paints, impressions, rouletting, clearly Bronze Age or Archaic, etc.), pull these together into the center of the table. These will be the sherds that the ceramics expert will register and assign individual numbers to. If any of these sherds are immediately recognizable in terms of date, ware, or form, note them *briefly* in the

'Preliminary Ids' box at the bottom of the sheet. *If a Registry Bag has been created, be sure to mark the check-box at the top of the sheet for that transect or sector*.

8. Bag and tag the registry sherds separately from the rest of the pottery, and place them *inside* the original transect/sector bag, alongside but separated from the non-diagnostic sherds. Put any separate bag of tiles from that transect or sector in that same bag as well. Stack these in their appropriate crate with the other bags that have been processed, but not registered. *All crates will be labeled with their contents*.

PART VII: RECORDING PROCEDURE - Finds and Ceramics Registries

Along with the Field Worksheet and Site Record, these two databases are require the most primary input, and they provide much of the information that eventually appears (portalled) in the other databases. The Finds Registry acts as both the preliminary and final repository for data about small finds, but the Ceramics Registry is only the final, expert reading of a selected portion of sherds. The *preliminary* reading of ceramics is recorded in the Transects and Sectors databases. Fields marked with an asterix (*) MUST be completed when first filling out the form, during preliminary processing.

FIELDS FOR BOTH FINDS AND CERAMICS REGISTRIES

*Registry#: The Key Number for both databases is the *Registry Number*, which is an extension of the Field+Transect or Site+Sector number, and which has the same format for both Small Finds and Ceramics, except that the final 3-digit extensions differ in their hundred-designation, in order to provide additional differentiation and an error-check. This 3-digit extension is called the 'Regno', and for finds from transects (fields), it begins with 100; from sectors (sites), it begins with 200; for ceramics from transects (fields), it begins with 500; from sectors (sites), it begins with 700. [It is unlikely that any transect or sector will contain more than 100

small finds or ceramics to register; nevertheless, the hundreds starting with 400 and 900 are reserved for future use.]
For Fields, the format will be: ####.##.### (Field.Transect.Regno)
For Sites, the format will be: ###.###.### (Site.Sector.Regno)

fieldtrs / **site sect**: This field is filled in automatically, the program detects whether the number belongs to a field or a site, and fills in the appropriate number

*Date Read: The format is Month/Day/Year. This is the date the find or ceramic piece was first processed and recorded.

*Readers: List the initials of the persons who read the find or ceramic piece, so that we know whom to ask in the event of a question.

Keep! / **tossed**: After processing, either preliminary or expert, check one of these boxes to record whether the object was saved or not. Objects that were collected but later determined to be clearly modern are not saved, for instance. It is hoped that all other objects can be kept, if storage is sufficient.

*Wt. (kg.): Use one of the 3 spring scales (of varying sensitivity) to record the weight of the object. Weigh the object in a thin plastic bag, which we will assume has no practical weight. Be sure not to weigh heavy things with light scales, or you will stretch out the spring, and render the scale inaccurate. Put the material in more than one bag if need be, or ask for a bathroom scale for really heavy things. **Use the appropriate scale**. The three scales are: *12.5 kg.* scale, with a resolution of ca. *0.1 kg.*, and presently slightly stretched out; it over-estimates weights by *0.3 kg.* Be sure to make that adjustment if you use that scale; *2.5 kg.* scale, with a resolution of ca. 0.05 kg., and *0.1 kg.* scale, with a resolution of *1 gram*. **Convert all measurements to kilograms**.

*Dimensions: Measure the width, height and thickness of the object, using a small tape or the digital calipers; for circular objects, provide the diameter. **Convert all measurements to centimeters**. Can be written next to the sketch on the back of the sheet.

*Description: Describe the small find or ceramic piece in as much detail as possible; use the back of the sheet if necessary; this field will be portalled into the transect and sector databases. Mention shape, manufacture, design, and decoration. Any information that does not seem to go anywhere else can go here.

Conservation/Analysis: Any special conservation measures or treatments (repairs, making casts, consolidation, reconstruction, restoration, etc.), as well as any analytic procedures (thin sections, microscopy, carbon-dating, etc.) taken on the object.

*Select Images: Up to 3 images (photos, drawings, etc.) can be inserted here. Note that a sketch of the object should be made at the time of preliminary processing, showing its essential shape, size, features and dimensions. Put this sketch on the back of the sheet, but **be sure to write the Registry# next to it**, so that if the sheet is photocopied, the image can be identified.

Chronology (Start and End Dates): As best as can be determined by experts, the date range for the production of the small find or ceramic piece. Use whole numbers, with a dash preceding dates B.C. (e.g.: -85 is 85 B.C.) The general list of chronological periods to the right can often be a useful guide; this list and its dates will no doubt evolve as the chronology of the region becomes clearer.

References: List references for published comparanda providing information about the date and function of the object.

Documentation: Entered in the 'Docs' database, and linked through to this database. The codes are listed below and to the right to aid in finding the original documents.

FINDS REGISTRY

No. of pieces: In most cases, one registry number will be assigned to each *individual* object. However, there are times when multiple objects of the same kind (pieces of bone, tesserae, pieces of slag, etc.) are found, and may be given a 'group' registry number, with any differences mentioned in the 'description' field. In such cases, this field allows one to input the number of pieces that comprise that 'group' registry number.

These fields feature pull-down menus that should be self-explanatory; the list items are also meant to be sensibly grouped. When filling out the paper forms, you should pick one of the following choices, but if the list is insufficient, just write in 'whatever it is'. In that case, when entering the sheets into the database, choose 'WRITE-IN OTHER' from the bottom of the list; you will get an alert message; simply proceed to write in what is on the sheet. Below are the fully-worded choices; in the database, some of these are abbreviated.

Terracotta Loomweight: Registry number 1007.04.100

Material:

stone
flint/chert
obsidian
basalt
marble
-
cement/concrete
plaster
mud
terracotta

iron
lead
bronze
copper
silver
gold
alloy
-
glass
frit

bone
shell
-
wood
leather/skin
textile
basketry
-
WRITE-IN OTHER

Function:

(Note: use 'worked' if the function is unclear, but the object has obviously been treated by human agency)

'worked'
skeletal-animal
skeletal-human
vessel
-
pane
sheet
building material
architectural fragment
brick
tile
daub
revetment
tesserae
furniture (fragment)
tomb (fragment)

-
sculpture
epigraph
tablet
s.a.h. (stamped amphora handle)
-
tool
ground tool
chipped tool
working debris
loomweight
spool/spindle(whorl)
weight
nail
weapon

slag
waster
-
coin
seal
attire
jewelry
ornament
gamepiece
toy
figurine
votive
-
WRITE-IN OTHER

Hacımusalar Ceramics Registry

CERAMICS REGISTRY

These fields were not given pull-down menu options, because every pottery specialist defines their terms differently, and until ceramic procedures for the survey are determined, it is better not to be overly specific. However, a few comments follow below. A ceramic summary sheet for the post-Bronze Age Troy Excavations is a useful reference; see also Hal Haskell's ceramic information on the Choma Web site.

Ware: Usually means a production run of pottery, bounded geographically and temporally, with distinct fabric, surface treatment, and to some extent, design. Examples include: Corinthian, Attic Black Figure, Eastern Sigillata A, Sagalassos ware, and African Red Slip.

Form: Refers to the shape and function of the vessel, e.g.: amphora, cooking pot, jug, plate.

Type: A specific combination of ware and form, in production for a defined period of time, and known from catalog publications, e.g. 'Hayes 51'.

Part: Refers to the extant part of the vessel, e.g. base, rim, spout, or handle.

Origin: Refers to the production origin of the piece, because over time, the same 'ware' often becomes produced at many different locations.

IF YOU HAVE ANY QUESTIONS, WISH TO SUGGEST CHANGES OR IMPROVEMENTS, OR WOULD LIKE CLARIFICATION, PLEASE SPEAK TO THE SURVEY DIRECTOR!

ADDENDUM: LIST OF RESPONSIBILITIES

[Note: the definition of these responsibilities may vary from year-to-year, as the number and composition of the survey team changes. These four categories detailed below, however, will remain the primary categories. They exist beside (do not replace) the responsibilities of the Team Leader.]

While The Person Responsible for each category may not do each of the tasks *personally* each day, they must make sure that *someone* gets these things done <u>each day</u>.

(1) **GPS/GIS** (Global Positioning System / Geographic Information System)
• The GPS equipment is in working order, the receiver batteries are charged up before each day, and a fresh 9-volt battery is packed for the data-recorder.
• Batteries for the walkie-talkies are charged up for each day.
• Battery for digital video camera is charged up, and there are 2 extra blank tapes in the camera bag, along with the headset.
• Field boundaries, transect end-points, photo locations and any other special features (such as sites) are GPS'd *for each field walked*.
• Data is downloaded from the GPS to the Dell computer and processed using the Trimble Pathfinder software - data is cleaned up, and areas and perimeters are calculated for each field/site.
• Data is exported from Pathfinder to Microstation and are put in the proper levels.
• Transects are drawn in Microstation, and tags are added to each transect.
• Back-ups are made of Pathfinder files (on PC - floppies) and of Microstation file (on Zip disk - Macintosh)

(2) **Documentation**
• Enough primary supplies (forms, bags, tags, pens, markers and notebooks) are brought into the field each day.
• All Field Record and Site Record sheets are filled out completely and accurately, both in the field and back at base.
• The Field and Site Logs are completed - all sketches and plans are drawn with all parts.
• All photos and video are logged completely and accurately in the field, and are *geolocated* (with GPS for location and a compass for the direction of the shot).
• All Field, Site, Transect and Sector databases are filled out fully and accurately on the computer after the paper sheets have been completed.
• All documentation has been entered into the Documentation database.

(3) **Finds**
• Snacks are brought into the field every day.
• All Finds tags are filled out completely and accurately; there are no bags without tags.
• All finds are cleaned, processed, recorded and registered each day.
• All finds have a digital record photo taken of them with the digital video camera; digital photos are processed into the computer and stored in the proper folder.
• All registered finds are entered into the finds database each day and linked to the processed digital photos.

(4) **Ceramics**
• Çay is brought into the field every day.
• All Ceramics tags are filled out completely and accurately; there are no bags without tags.
• All Ceramics are washed, counted, weighed, sorted, and recorded each day.
• All important diagnostic ceramics are registered, recorded, and photographed with the digital video camera each day.
• All ceramics data (counts and weights, preliminary reading, and registered ceramics) are entered completely and accurately into the databases each day, and linked to the processed digital photos.