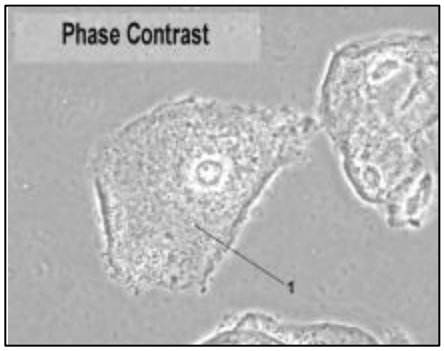
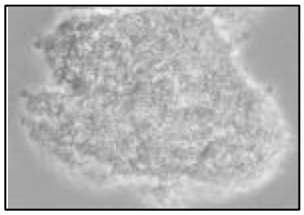
Wet Mount Proficiency Test 2003 A – Critique MSW

Micrograph A



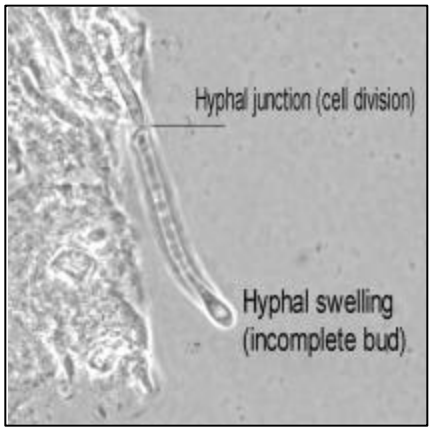
[°] Squamous epithelial cell(s) - not a clue cell
As in previous challenges, this squamous epithelial cell is not a clue cell because it is not covered by a fine, lacy coating of bacteria. The cell does show some granulation, but that is enhanced because of the phase contrast used to photograph the specimen. The edges of the cell and the nucleus are clearly visible. If this were a clue cell, it would be completely covered by a fine mat of bacterial cells which would obscure the edges of the cell and the nucleus.

Micrograph A2



Micrograph A2 is a typical clue cell - you can barely see the nucleus and the edges of the cell are obscured by a film of rod shaped bacteria. It is typically a 'fuzzy' and indistinct shape about the size of a squamous epithelial cell. Note the difference in the cell surface texture between the two micrographs.

Micrograph B

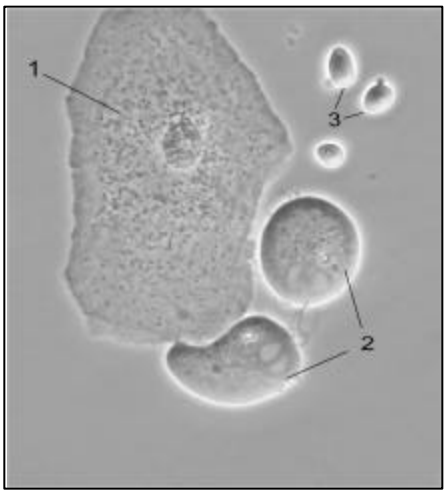


[°] Pseudohyphae with bud/s or
[°] Pseudohyphae without bud/s
This is clearly a fungal element, most likely a pseudohyphae. The tip shows a swelling which may develop into an obvious budding yeast cell. We accepted pseudohyphae both with and without buds since the terminal swelling could have been interpreted as a bud or just hyphal swelling. Another hint that this was a pseudohyphae is observed at the juncture between 'hyphal elements' where the structure protrudes from the squamous cell mass; it appears that there are two cells touching one another rather than a hyphal crosswall that would be seen in a mold.

Micrograph B2

The morphology should not have been confused with a sperm cell because a sperm has a thinner, tapering tail attached to a swollen head (cf insert micrograph B2). The respondents that marked this as a sperm cell were marked down. Note the thinness of the tail as compared to the pseudohyphae; the tail is so thin that it lacks much internal detail as compared to the pseudohyphae and the sperm's tail is tapered where the psedudohyphae appears more as a segmented tube.

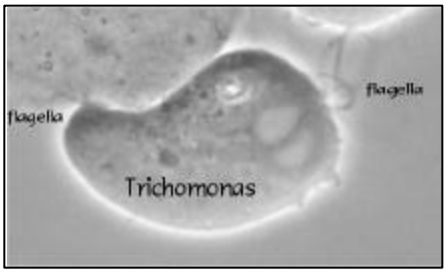
Micrograph C1



1 2 3
[°] [ ] [ ] Squamous epithelial cell(s) - not a clue cell
[ ] [°] [ ] Trichomonas(ads)
[ ] [ ] [°] Yeast cell(s) with bud/s & without

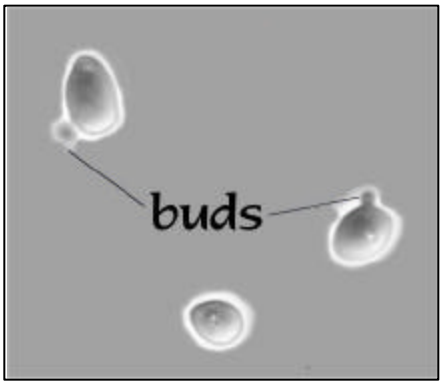
There is lots to look at in this micrograph. It was taken with phase contrast to make the details stand out more clearly. The large squamous epithelial cell (item 1) is <u>not</u> a clue cell; too much normal cellular detail and no covering of bacterial cells. Admittedly, the phase contrast gives the squamous epithelial cell a fine granularity which could be interpreted as a 'ground glass' appearance - sometimes associated with clue cells, but in this case the granularity is an artifact due to the photographic method.

Micrograph C2



Item 2 are Trichomonas cells; the one on top near the center has begun to round up which is a terminal event in most samples. Since this sample was cultured with Diamond's medium to preserve it long enough to get it to the lab, the Trichomonads have become quite swollen. Their flagella are clearly visible (C2).

Micrograph C3



Items 3 are budding yeast cells (C3), not red blood cells. Red blood cells would be round and have an apparent dimple in the center - no buds would be evident.