## Clemens D. Reichel

The cell phone rang as I was working in the photo studio. Somewhat unwillingly — I am still not used to this new medium of on-site communication, in spite of its advantages — I finally picked it up. It was Ali (Alexandra Witsell) — the excitement in her voice cut through the static caused by the generally poor reception on-site: "Come quickly — I have something to show you — you'll love it...." No time to wait for the car to return from its shopping run. I walked — although the closest excavation area to the house still a ten minute walk at a brisk page. Ali was waiting for me at the top of Area B, the southern spur of Hamoukar's high mound that yielded the remains of our burnt buildings, remains of the city destroyed by a violent conflagration around 3500 B.C., described in the 2005 *Annual Report*. "Have a look," she said, pointing toward a rectangular room, which had walls preserved up to 1.70 m and which had been the focus of her excavation for the last two weeks. In it I found Ula Abu Rashid, a talented Syrian student who had been work-

ing with Ali on the excavation, carefully clearing away the last remains of collapse from the floor. Right away I saw what had caused the excitement. It was a round, shallow depression in the floor — a basin (fig. 1). Embedded in the basin was a jar in a way that its rim was level with the bottom of the basin. The basin also contained remains of clay. Its function was beyond any question — it was a recycling bin, a "paper shredder" dating to a time when writing had not been invented, in which discarded clay sealings were soaked and recycled. Not a surprise to find such an installation, considering the vast quantities of clay sealings that we had already recovered. What caught our attention, however, was a row of roughly ovoid clay lumps lined up against the edge of the basin. Sling bullets!

My throat tightened. Sometimes it is hard even for a seasoned archaeologist to retain a distance to what he encounters. Over the past weeks we had found more evidence of intense destruction — massive amount of burnt debris, collapsed walls, and vast numbers of sling bullets that rained down on these buildings. For weeks the intensity of the fight that had raged there on a fateful day some 5,500 years ago had literally been "in the





Figure 1. LAST STAND: Basin in floor of room, containing sealing clay and row of sling bullets



Figure 2. NOAH'S ARK: sheep surrounding Hamoukar dig house during rainfall and floods (late October 2006)

air" in the form of ash stirred up by the excavation. The bullets from the recycling bin added another vivid image — the despair of the defenders. Even this little recycling bin, less than 50 cm in diameter, was used in a "last stand" to make weapons. Weapons that never were used, for the roof came down on them before they had a chance to dry out.

Following the 2005 season, when we first reported the violent end to this early city by warfare, a barrage of reports appeared in the media on our findings. A Google search shows that Hamoukar has almost turned into a household

name (recently even an item on *Jeopardy!*), intrinsically connected to "early warfare." Our discoveries, however, also found some highly critical responses in the scientific community. Some colleagues went as far as doubting our identification of those ovoid clay lumps as "sling bullets" and, in fact, doubted our warfare "scenario" altogether. An article published in *Science Magazine* on our findings in June 2006 took a neutral stance on this dispute, but nonetheless labeled our interpretation as "controversial." It was clear that more evidence was needed to prove our point.

By the first week of September 2006 we were back in Damascus. The Syrian Department of Antiquities had extended our permit to work at Hamoukar (which, considering Hamoukar's location close to the border with Iraq, should never be taken for granted for an American team). Following the completion of formalities, we headed out to Hamoukar on September 11 and started work on September 16. As a joint Syrian-American project, this season saw the second year of codirectorship between myself and Salaam al-Kuntar, who works for the Syrian Department of Antiquities and is also finishing her Ph.D. at Cambridge University. The team included six students

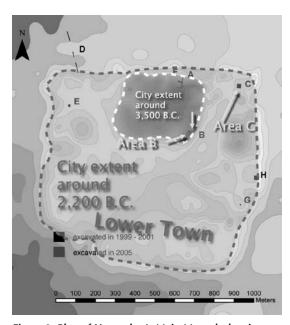


Figure 3. Plan of Hamoukar's Main Mound, showing 2006 excavation areas (Southern Extension not included)

from Chicago — three of them (Dan Mahoney, Tate Paulette, Ali Witsell) had already worked there in 2005, while three of them (Michael Fisher, Kate Grossmann, Katharyn Hanson) joined us for the first time. The architecture was mapped by Carlo Colantoni (Cambridge University), who had worked at Hamoukar in 2000 and 2001. Lamya Khalidi, who had worked at Hamoukar in 2001 and 2006, rejoined the team as excavator and obsidian specialist. Torsten Muehl (Chicago) joined us as object draft person. On the Syrian side, Ibrahim al-Aliya (Aleppo University), Khalid Abu Jayyab, and Dina Kallas (Damascus University) had been present in 2005, while Ula Abu Rashid (Damascus University), Fahd Shabi (Aleppo University), and Ahmed Sleivi (Damascus University) joined us for the first time. Three more Syrian students joined us for shorter periods of time. Ghasan Abdel-Aziz from the Syrian Department of Antiquities, who had worked with us in 2001 and 2005, once more worked as site con-

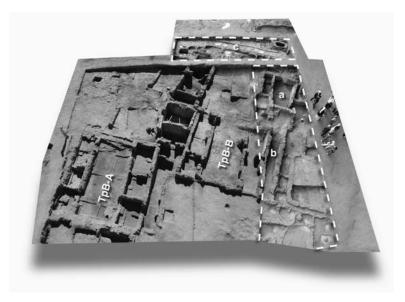


Figure 4. BURNT CITY: View of Area B from north (composite photograph). New excavation areas are indicated with dashed lines

servator. I was more than pleased that Mahmoud al-Kittab (Raqqa Museum), who had built and (in 2004) rebuilt the expedition house, could join us again as housekeeper and chauffeur.

The season started most successfully but almost ended in disaster in late October, when heavy rainfalls and flash floods inundated Syria. Several people drowned at Hassake, and even Palmyra experienced flooding. For days we were confined to the house. The site turned into a gigantic pile of mud, making it impassable. Over a week of digging time was lost, and mapping was difficult if not impossible. With frequent power outages, even work in the house, such as pottery analysis and object photography, was largely impeded for days. The area around our house had turned into a major refuge for sheep herds, which took an extra toll on our nerves — the constant sounds of

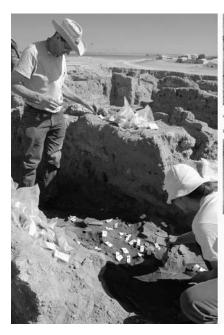




Figure 5. BUREAUCRATIC WEIGHT. Area B: (left) Torsten Muehl and Ali Witsell excavate some of the hundreds of clay sealings retreived in small room west of TpB-B; (right) paper tags marking the findspots of sealings for subsequent mapping



Figure 6. Clay sealing with geometric seal design. Area B; date: ca. 3500 B.C.



Figure 7. Clay sealing with impression of crescentshaped seal depicting six lions. Over 160 impressions of this seal were found during the excavation of one room. Area B; date: ca. 3500 B.C.

sheep mixed in with the rain made us feel as if we had boarded Noah's Ark (fig. 2). The fact that the season still came to a successful conclusion is largely due to an exceptionally disciplined team that went out of its way to use those precious rain-free and electrified moments to get the work done.

Following the large-scale work of 2005, I had planned on a smaller season in 2006 — completing the picture, rounding off corners, and answering questions. In my wildest dreams I never would have anticipated that we were going to both excavate and find more than we did in 2005. Work plans have to be adjusted in the field. In most cases it is a matter of scaling down. Hamoukar, with its remote and politically "delicate" location, however, offers special challenges, including getting to the site, setting up the house, and getting provisions. In a nutshell, once you are there you try to do what you can do (even if it means closing your eyes on your budget...).



Figure 8. Clay sealing with seal depicting two dancers. Area B; date: ca. 3500 B.C.



Figure 9. Clay sealing with seal depicting scorpion. Area B; date: ca. 3500 B.C.

This certainly held true for Area B, the area of the burnt buildings, which had been the center of our excavations in the past (fig. 3). In 2001 and 2005, we had partially excavated two large complexes (C-A and C-B) of the same type. They both consisted of rooms surrounding a square courtyard and tripartite building at their northern sides. The general layout of these units had become clear to us in 2005, yet we didn't reach the outer perimeter of either one of them. In the east, the area of C-A, the proximity of the topsoil prevented a full recovery of the architectural layout, but it seemed possible to get the full layout of C-B by adding a  $5 \times 10$  m trench to the south, and two 5  $\times$  10 m trenches to the west (fig. 4). Since the



Figure 11. Area B: burial from post-destruction floor

rooms opened to another large room to the west — the one with the recycling pit described above (marked a in fig. 4) — and this room had another doorway in the west opening to a space beyond the limits of our excavation. Farther to the north, along the western side of the tripartite building (TpB-B) excavated in 2005, we found a long narrow room, similar to a room excavated along the western side of the other tripartite building (TpB-A) in 2005. The latter one, however, could be accessed through a small room from within TpB-A, hence was an add-on to that building. The new long room, by contrast, had no connection to TpB-B to its east, making an association with it impossible for the moment. It was in this room, however, that work almost came to a grinding halt, for in it we found the largest deposit of clay sealings so far discovered at Hamoukar (fig. 5, marked b in fig. 4). Our own stringent mapping procedures — nothing gets removed without it being recorded three-dimensionally — made work very difficult, but it became clear that we had encountered a large dump of clay sealings with several repetitive designs. Some of them showed



Figure 10. Seal, bone, in shape of crouching bear. Reverse shows seal design with human facing animal (gecko?). Area B; date: ca. 3500 B.C.

mound sloped downwards in both directions, all I could hope for is that erosion had left enough of the architecture to retrieve the layout of the buildings. I was wrong — at least in parts. To the west, the level of preservation actually increased to a degree that walls were preserved up to an unprecedented height of 1.80 m. Once more we encountered massive destruction, vast numbers of sling bullets, and even more clay sealings (ca. 900) than in 2005. The closure for the complex in the west, however, that we had been looking for remained elusive. The western edge of the courtyard excavated in 2005 was indeed formed by three rooms, but two of these

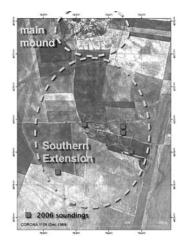


Figure 12. Satellite image showing Southern Extension in relation to Hamoukar Main Mound. 2006 excavation areas are marked



Figure 13. Lithic core, grooved line indicate blades that have been knapped off. Southern Extension; date: 4500–4000 B.C.

a large seal with a geometric pattern (fig. 6); another one, a crescent-shaped seal showing six lions, showed up on no less than 160 sealings from this room (fig. 7). Even if we account for gradual accumulation such a number has to mean something — quite clearly we are dealing with large-scale accounting for one particular commodity. The latter impressions were found on jar sealings, so we have to assume the storage and possible redistribution of a liquid (oil?) at a fairly large scale.

The repertoire of seal motives encountered in 2005 was augmented substantially in 2006. Highlights include several impressions of seals with two dancers (fig. 8), a complex seal with lions and a seal showing a scorpion (fig. 9). An

actual seal in the shape of a crouching bear (fig. 10), showing a human facing an animal (gecko?) as seal design, complements the picture.

To the south the level of preservation was not as good as in the west, but we managed to answer a number of important questions. A narrow alleyway (marked c in fig. 4) provided the closure of C-B that we had looked for. The complex was entered through an entrance room that opened to its central courtyard. The relatively poor level of architectural preservation in this area became understandable once we realized that post-destruction surfaces ran across some of the walls. These surfaces were covered with remains of coarse pottery and animal bones — evidence of extensive on-site cooking. Several graves were found in association with these surfaces, some of them truncating the walls below (fig. 11). These discoveries allowed us to modify our

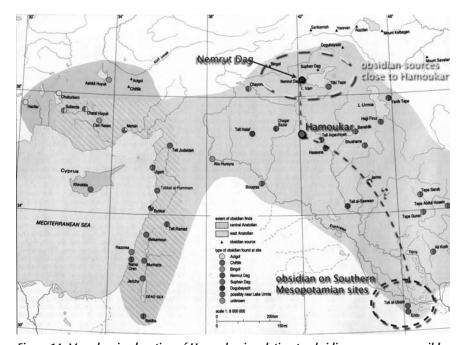


Figure 14. Map showing location of Hamoukar in relation to obsidian sources an possible trade connections with Southern Mesopotamia

reconstruction of the post-destruction events. In 2005 we had encountered numerous pits dug from a higher level of architecture, which itself had fallen victim to soil erosion. These pits were full of southern Mesopotamian Uruk pottery — hence, we concluded, the city was destroyed by southerners and almost immediately colonized by them. Our new discoveries indicate that the situation was not as clear-cut as it first appeared to be; following the destruction of the city, this area appears to have been occupied by squatters (most likely of the survivors of the attack) who leveled out the area for temporary housing. Casualties of war or victims of subsequent diseases or famine were buried in the ruins of the buildings. Once more, we encountered plenty of sling bullets — over 2,300 so far in 2005 and 2006 combined, including several hundred more of the squashed ones (the ones we nicknamed "Hershey's Kisses" in 2005). One bullet was found stuck in a chunk of wall plaster.

The evidence suggests that Uruk culture attacked and destroyed Hamoukar — the question remains why. The answer to that may be found in a vast extension of the main mound to its south (fig. 12), an area of about 280 hectares (almost three times the size of Hamoukar at its later apex as a city around 2200 B.C.). Surveys in 2000 and 2001 had encountered vast amounts of obsidian fragments in association with early Late Chalcolithic pottery (ca. 4300–4000 B.C.). We had already dropped two large soundings in this area in 2005, but in 2006 we expanded work by opening six large trenches in several areas (marked in fig. 12). In all these trenches we encountered

early Late Chalcolithic architecture, pottery, and — most significantly — vast amounts of lithic material. In addition to tools, such as blades and spearheads, we found production debris such as lithic cores (fig. 13). Their discovery is almost more significant than the retrieval of tools, for they ascertain that obsidian tools were not only used at Hamoukar in the late fifth and early fourth millennium B.C., they were also made there.

The discovery of a 280 hectares obsidianproducing facility at Hamoukar dating to the fifth millennium B.C. gives reason to pause and ponder. Uruk, the largest known city in the fifth



Figure 15. Stamp seal, stone, showing two dancers. Southern Extension; date: 4500-4000 B.C.

and fourth millennium B.C., is a mere 100 hectares around 4000 B.C. Around 3500 B.C., the city of Hamoukar extends for about sixteen hectares. The only logical way to explain the size of our Southern Extension is as a shifting settlement. Even though it is abundantly clear that a production facility of this magnitude extended far beyond the needs of Hamoukar itself, its main purpose had to be export. This raises two important questions — what were the sources of the obsidian, and where were the markets for the tools made from it?

The next source of obsidian from Hamoukar is about 70 miles to the north at the Nemrud Dagh volcano to the west of Lake Van (not to be mixed up with the famous archaeological site with the same name, close to Adiyaman) (fig. 14). Scientific analyses have matched the chemical fingerprint of Nemrud Dagh obsidian in blades from Ur and Eridu from the sixth and fifth millennia B.C. Even if a chemical analysis of the Hamoukar obsidian is still lacking, the fact that Hamoukar is in direct line between the Nemrud Dagh and Southern Mesopotamia seems to be more than a coincidence. A large-scale obsidian-producing facility at Hamoukar could also answer another important question raised in connection with Hamoukar's early urban adventure — why did people move into the confines of a city in an area that by its geographic and climatic conditions



Figure 16. Late third-millennium ware from Area C; date: ca. 2200 B.C.



Figure 17. Clay sealing with impression of cylinder seal showing banquet scene. Area C; date: ca. 2200 B.C.

allows rain-fed agriculture, hence favoring a village and subsistence-based lifestyle? A large-scale export of obsidian tools to the south would have required a significant surplus production and resulted in an accumulation of wealth that had to be protected by a wall — such as the Late Chalcolithic city wall of Hamoukar discovered in 1999. Such a powerful position in the obsidian trade could also have contributed to Hamoukar's ultimate doom — before the widespread use of copper in the later fourth millennium B.C., lithics not only were used for household tools but also for weaponry. If Hamoukar attempted to monopolize access to the Nemrud Dagh obsidian sources and the manufacture of tools from it, then it may have been seen as threat to vital interests of the Uruk state and hence had to be eliminated. The whole operation could have been part of a larger push to the west — Tell Brak, some 100 km to the west, shows a similar destruction layer that roughly dates to the same period. Both sites are situated along an ancient trade route that ran across the Tigris River at Nineveh, and ran west to the Mediterranean or up into Anatolia. Since this route led towards south-

ern Turkey's major copper ore sources (Ergani Maden), we should also consider the possibility that securing access to this vital new raw material could have played part in the decision to attack and destroy Hamoukar.

Even though the Southern Extension itself cannot be called a "city" — perhaps the term "industrial suburb" would be more appropriate — it contained certain pieces of evidence usually associated with urbanism. This included several stamp seals, two of them showing two dancers (fig. 15), and several clay sealings. Significantly, the occurrence of Late Ubaid pottery and even of Late Halaf Ware in at least two of the trenches suggests a chronological overlap of these periods with the Late Chalcolithic period, which had not been attested before.

The excitement over evidence for early urbanism at Hamoukar occasionally makes us forget that the main site is mainly occupied by a late third-millennium city. Thus it was also part of the second blooming of urbanism in the Upper Khabur region, a phenomenon also found at Tell Mozan, Tell Brak, Tell Leilan, Tell Khuera, and Tell Beydar — though at about 100 hectares, Hamoukar was one of the largest cities. Excavations at the northern slope of the High Mound (Area A) in 1999 (the step trench) and in 2005 have revealed large-scale architecture dating to the post-Ninevite V period (i.e., after 2500 B.C.). I have little doubt that these remains, which had yielded walls over one meter wide, were either part of, or directly associated with, the city's palace. Unfortunately, most of the rooms found were empty; a rapid sequence of rebuildings was noted, and in some cases it remained unclear as to whether we had found rising walls or a substantial mudbrick foundation. A much better situation had already been noted to the northeast of the High

Mound (Area C). A sounding dropped in this area of the lower town in 1999 revealed the remains of a niched building. During excavations in 2000 and 2001, the remains of what appeared to be two substantial buildings separated by an alley were found. Both of them showed extensive traces of burning; a violent end to this occupation was also suggested by vast amounts of pottery that had been thrown into open spaces, possibly indicating widespread looting. Both pottery and <sup>14</sup>C dates suggest a date somewhere between 2300 and 2200 B.C. Several enigmatic sealings (long, thin clay slabs) had been retrieved from one room. The seals found on them suggested a date into the early Akkadian period. The exact architectural layout in this area, however, had remained highly elusive, so we put Tate Paulette to work there who in 2005 had gained experience with excavating third-millennium B.C. mudbrick (which at Hamoukar contains no visible straw as temper, hence is hard as cement and often indistinguishable from the adjacent debris that essentially consists of exactly the same material). Tate managed to excavate several rooms down to floor level. As it turned out, almost all of them had baked brick floors — clearly a sign of wealth in an area that is generally devoid of large quantities of fuel. The floors were covered with third-millennium B.C. pottery — often very fine wares (fig. 16) including stone ware vessels known from Tell Brak and other northern Syrian sites. More sealings of the same type as retrieved in 2001 were found. One sealing (fig. 17), however, was clearly earlier, showing a banquet scene similar to those found in the Diyala region during the Early Dynastic III period (i.e., roughly 2400 B.C.). Sadly, Tate's work could not be finished due to extensive flooding at the end of the season (Area C literally had turned into a lake then), but it is clear that we are dealing with a major administrative structure in this area. Whether or not this is a palace built off the main mound will hopefully become clear in the future.

At this point we are getting ready to head out again to Hamoukar. We are planning a two-month study season to prepare the publication of our finds; in addition, we have invited a group of geophysicists from the University of Akron (Ohio) to join our work. Geophysical surveys have been undertaken with great success on other third-millennium B.C. cities, and we hope to be able to retrieve at least part of the ground plan of Hamoukar's Lower Town this year.

Numerous individuals and institutions once more supported the Hamoukar expedition in 2006. On the Syrian side I must thank the Department of Antiquities, notably Dr. Bassam Jamous (Director of Antiquities and Museums) and Dr. Michel Magdissi (Director of Excavations) for their help and generosity, which also included a financial contribution to the season. The Syrian Embassy once more has been exceptionally helpful in providing us with visas from the U.S., and also aided us in obtaining Syrian visas in countries where visas to U.S. citizens normally are not issued. Numerous individuals in the U.S. have contributed to the 2006 season: Mr. Howard Hallengren (New York), who renewed his generous financial support for both 2006 and 2007; Mr. Alan Brodie (Chicago); and Dr. Ronald Michael (Chicago). Mrs. Carlotta Maher literally went out of her way to help us raise the necessary funds — her continued enthusiasm for our work is most gratefully acknowledged here. As mentioned in last year's report, in June 2006 the Syrian community in Chicago met for a fund-raiser in support of our work — here I would like to thank Dr. Antoun and Sonja Koht for their extraordinary dedication in organizing this meeting, which raised almost 25% of last year's budget, and for their continued support. The geophysical work this upcoming season is possible thanks to a generous grant from the University of Chicago Women's Board. More recently, a meeting of West Monroe Partners (www.westmonroepartners. com) held at the Oriental Institute on June 29, raised \$3,000 towards this year's season — thanks to Mrs. Sandra Felker and Paulette McKissic for making this event possible. Last, but of course by no means least, I want to thank the Oriental Institute, notably Director Gil Stein, for continued logistical and financial support of the Hamoukar Expedition.

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The Hamoukar Expedition was revived despite what was then a highly adverse political climate. With political relations between Syria and the U.S. having thawed to some degree one could say it was the right step at the right time. I am convinced that the cooperation with our Syrian friends and colleagues at this highly important site will continue to be successful and help to rewrite a significant chapter in the early development of Near Eastern cities.