

COMICS & CULTURE

Analytical and Theoretical
Approaches to Comics

Edited by
Anne Magnussen
Hans-Christian Christiansen

Museum Tusculanum Press  University of Copenhagen

America's First Comics? Techniques, Contents, and Functions of Sequential Text-Image Pairing in the Classic Maya Period

Jesper Nielsen and Søren Wichmann

0. Introduction¹

Many introductory books on the history of comics begin with the publications of the first American comic strips in the late 19th century (e.g. Fuchs and Reitberger 1978: 13; Hegerfors and Åberg 1996: 5), and hence concentrate on the last 100 years of comics history. Occasionally extremely brief references are made to prehistoric or other early cultures that used comic-like means of expression, that is, combinations of text and image. Oft-mentioned examples are Egyptian and Mesopotamian reliefs or the famous medieval Bayeux tapestry (Fuchs and Reitberger 1970: 10-11; Eisner 1986: 5; Hegerfors and Åberg 1996: 5). In contrast to this mildly ethnocentric ignorance of the time depth and cultural variety of comics, Scott McCloud, in his innovative book *Understanding Comics* (1993) focuses on, and describes in some detail, the way in which not only the ancient Egyptians, but also the Pre-Columbian Mixtecs of the 14th to 16th century Mexico, used conventions similar to those found in modern comics in their screenfold books of bark paper. McCloud concludes that

there's an incredible wealth of ancient comics and some may yet hold the key to comics' future. Discovering and cataloguing this work has already begun. But there's much more that needs to be done! There's a big gaping hole in the official history of art and it's high time somebody filled it. (McCloud 1993: 200, emphases removed)

1. We would like to thank Justin Kerr for giving us his permission to publish his remarkable photographs of Maya Vessel paintings. In addition, we gratefully acknowledge comments from Alfonso Lacadena, Stephen Houston and Erik Boot on an earlier, more lengthy, version of this paper.

In this paper we shall try to fill a part of this gap, and demonstrate that it is in fact possible to push back the time of the appearance of the predecessors of American comics some 1200 years before the Mixtecs. As early as the 3rd century A.D. scribes and artists of the Classic Maya society realized that the combination of text and image offered unique possibilities for relating series of events (see Fuchs and Reitberger 1978: 55 for a characterization of comics along these lines). In fact these early Maya examples have even more in common with modern comics than the Mixtec codices described by McCloud. Maya sequential art painted on ceramics and stuccoed walls or engraved on limestone tablets and lintels shares a broad range of expressive features with modern comics. The aim of this paper is to discuss and delimit the definable properties of what we have termed *Maya sequential text-image pairing* as a neglected subcategory within the broader category of Maya visual communication. More generally, this preliminary investigation seeks to throw some light on the development and practice of text-image pairing in a culture historical perspective.

1. The cultural context and media of text-image pairings

The Pre-Columbian Maya civilization flourished in southern Mexico, Belize, Guatemala and the western part of Honduras from between ca. 250 B.C. to the arrival of the Spanish in 1519 A.D., and was one of the cultures of major importance in Mesoamerica. Since only four Maya screenfold books (or codices) have survived to this day, polychrome vessels and plates provide by far the richest source for the study of sequential art. Around 1000 vessels with text-image pairings have been published in photographic reproduction, and many more are known or expected to exist. The majority of these vessels were produced in the Late Classic period, more specifically between 600 and 900 A.D. Unfortunately, most of the known vessels are unprovenanced, as they have seen the light of day as the result of the sacking of elite tombs by looters. The four surviving codices are sacred almanacs, which, due to their function, contain only few examples of sequential art, but it must be assumed that this genre was also represented by the bark paper books.

Dorie Reents-Budet (1994: Chap. 6) has identified three major categories of pictorial themes found on Maya ceramic vessels, each theme having several subcategories: (a) the natural environment; (b) historical scenes, including subcategories with some of the most frequent themes such as palace, warfare, ballgame, and sacrificial or ritual scenes, and

1 demonstrate that
 earance of the pre-
 re the Mixtecs. As
 e Classic Maya so-
 ge offered unique
 is and Reitberger
 ese lines). In fact
 mon with modern
 d. Maya sequential
 aved on limestone
 eatures with mod-
 limit the definable
xt-image pairing as
 y of Maya visual
 estigation seeks to
 text-image pairing

pairings

southern Mexico,
 from between ca.
 nd was one of the
 e only four Maya
 day, polychrome
 or the study of se-
 airings have been
 ore are known or
 produced in the
 nd 900 A.D. Un-
 iced, as they have
 te tombs by loot-
 hich, due to their
 but it must be as-
 paper books.

three major cate-
 ssels, each theme
 ent; (b) historical
 : frequent themes
 itual scenes, and

finally, (c) supernatural beings and events. There is ample evidence that finely decorated vessels had a utilitarian use, namely for drinking chocolate or maize gruel, but their function as a social currency may have been of equally great importance. Vessels played a central role in political negotiations and alliance building between city-states and in important rituals, and are likely to have been the most common and important type of object in ritual gift-giving (see the vessels K3314² and K5094 for examples).

Despite similarities in the outward appearance of Maya text-image pairings and modern comics there is a considerable difference with regard to content and function. What the two have in common are primarily idioms or expressive traits and techniques. We hesitate to use the term comics as synonymous with Maya sequential art, since to many it probably implies messages of a humorous or entertaining nature. Although Maya sequential art in some cases does seem to convey humor, this is certainly not always the case. Thus, we prefer a less specific and culturally biased definition, such as that suggested by Will Eisner (1986), namely *sequential art*, or a more precise and elaborate version thereof: *juxtaposed pictorial and other images in deliberate sequence* (McCloud 1993: 5-9).

2. Sequential text-image pairings as a new subcategory of conjoined text and image

Four major categories of visual communication were used by the ancient Mayas: (a) discrete texts; (b) images; (c) conjoined text and image, i.e., text and image occurring together but spatially separated from one another; and finally (d) embedded texts, in which textual elements merge with images (Berlo 1983; Nielsen 1998: 2-5).

The discrete texts (a) are texts written with Maya hieroglyphs that are not accompanied by any images. Such "pure" and image-independent texts are very rare in the extensive corpus of hieroglyphic inscriptions. Even rarer in the Maya context are examples of the second category,

2. Throughout this paper we shall make many references to different vessels, using, whenever possible, the numbering system of the most prolific publisher of Maya vessels, Justin Kerr. Kerr numbers are introduced by "K." Most of the vessels are published in Kerr's *Maya Vase Book* series that number 5 volumes to date (Kerr 1989-1997). In addition, Kerr's corpus is available on the internet: <http://www.famsi.org/mayavase/>. Among the other rich sources are Robicsek and Hales (1981), Reents-Budet (1994), and Coe (1973). Both the Kerr series and his internet vase archive provide various concordances to his and other numbering systems.

(b), which comprises "pure" images (although instances do occur, e.g., the panels from X'telhú). By far the most commonly used type of visual communication and artistic expression was that of conjoined text and image (c). Janet C. Berlo (1983) has shown that with respect to this type the images are not necessarily simply illustrations of the event described in the text. Text and image elaborate on each other, and, in order to receive the complete message of a vessel, a stela or a page in a codex, one has to read, and combine, the information of both text and image (cf. plate 3, and further discussion below). Thus, Maya visual communication never suffered the radical separation of text and image that is, or at least has been, characteristic of the Western world. For a long time this separation resulted in a conception of "high" art as comprising either "pure" texts or "pure" images, whereas the combination of the two was regarded as inferior and best suited for advertising, entertainment and types of "low" art (McCloud 1993: 140-151). To Maya artists, on the contrary, the combination of text and image was the most expressive and hence preferred kind of visual communication. Category (d), embedded texts, transcends the boundaries between text and image and is a result of integrating or embedding hieroglyphic signs into images in subtle ways. This is mainly possible due to the close relationship between Maya hieroglyphic signs, which to a high degree are representational, and the images and iconography employed. Embedded texts could be used to signal the material of which objects were made, to indicate place names or personal names, etc. In fig. 1, the grape-like markings on the monstrous heads at the base of each of the two panels are examples of *embedded texts*. These markings recur in the signs for *tu:n* 'stone' and *witz* 'mountain'. The monstrous heads thus somehow represent mountains. Since the eyes resemble the hieroglyph for water, *ha'*, the combination seems to evoke an expression *ha' witz* 'water mountain', which would be the Classic Maya equivalent of the Nahuatl term *a:l-tepe:tl*, a term used for 'town, city' in general. Thus, the two monstrous heads probably refer to place-names (cf. Nielsen 1998: 9 for this observation with reference to similar examples).

The subcategory of sequential text-image pairings belongs within the broad category of conjoined text and image, and has sequentiality as its most distinctive and recurrent feature. The juxtaposition of images and text in sequence enables the artist to indicate movement and temporality and to describe a series of ongoing events. Hitherto, sequentiality in Maya art has received surprisingly little attention (Robicsek and Hales 1981: 113; Schele and Miller 1986: 38; Reents-Budet 1989).

ances do occur, e.g.,
y used type of visual
conjoined text and
with respect to this
ons of the event de-
h other, and, in or-
la or a page in a co-
n of both text and
Thus, Maya visual
n of text and image
estern world. For a
"high" art as com-
as the combination
for advertising, en-
993: 140-151). To
text and image was
al communication.
daries between text
dding hieroglyphic
ble due to the close
h to a high degree
hy employed. Em-
which objects were
etc. In fig. 1, the
case of each of the
rkings recur in the
istrous heads thus
ble the hieroglyph
expression *ha'witz*
a equivalent of the
' in general. Thus,
ames (cf. Nielsen
examples).
belongs within the
sequentiality as its
tion of images and
ent and temporal-
to, sequentiality in
obicsek and Hales
: 1989).

2.1. The organization of images

Unlike Maya texts, which have a fixed reading order left-right or top-down, Maya images are not necessarily decoded in a specific order. Furthermore, the artists who produced the painted vessels, did not use any overt means, such as arrows, for linking images together in a specific order, a technique common in a modern context, or footprints, a device often used in Postclassic Central Mexican screenfolds. Nevertheless, in subtle ways that were specific to the medium of cylindrical vessels, the artists could direct the decoding of the images such that the viewer's attention would be more or less focused unconsciously in response to the artists' intentions. Nowadays the images on Maya painted vessels are most often photographically reproduced by means of the roll-out technique invented by Justin Kerr. This allows a cylindrical image to be reproduced as if it were painted on a single, flat page. It is a clear advantage for the student to have a complete overview of each vessel, but when studying these roll-outs we must not forget that this is not the way the Maya viewer would confront them.

When one examine a real-life Maya vessel, the part which is clearly visible without the onlooker turning the vessel corresponds to a little less than half of the total diameter of the vessel. In size this visible stretch more or less equals the minor part of the roll-out image when divided by the golden section. Thus, a natural way of utilizing the space for painting would be to place three or four evenly spaced images or scenes around the vessel wall. This pattern, which we shall call **ABC** is indeed a common one (figs. 1, 5, 6). We also include under this type such vessel paintings that have two (e.g., fig. 4), or more than four images; the criterion is not the number of images, but rather that the characters depicted turn in the same direction, that no particular image stands out as central, and that there be no heavy frames separating the images. Another layout which is even more common is one that indicates a front, suggested by an artistically elaborated or thematically central image and a back constituted by back-to-back figures. In this type, the front and the sides are not separated. Thus, the scene of the front "spills" over into the sides, but usually only that part of the scene which is minor in importance. Thus, in a palace scene, the front may be constituted by a ruler or other major political figure sitting in an elevated place with rows of subordinates to either side of him. The subordinates sitting last in each row will meet back to back on the side of the vessel opposite the point where the ruler is seated and will constitute the back of the vessel painting. Although palace scenes may be more common in

this type, which we shall name **bAd**, we have chosen as examples scenes of an action-oriented nature (fig. 2 and plate 4). The different varieties could be symbolized abAde, bABd, bd, etc., depending on the number of central and secondary images, but we prefer to use the general label only in order not to complicate the use of symbolic conventions. A third common organizational principle is one in which the total painted space is divided into four: two large spaces containing equally important, in fact often near-identical, images and two smaller ones, typically containing vertical quadrangles containing glyph rows or decoration. We shall name the resulting type **AxBy** (plate 3, fig. 3).

We stress that this is not intended to be an exhaustive typology, although a greater part of the corpus fits these major types perfectly or with some allowances for deviations and combinations.³

2.2. Narrative sequentiality in Maya art

It is possible to distinguish two slightly different ways in which the Maya producers of sequential art narrated series of events. One is *broad sequentiality*. Characteristic of this type is that between each sequence enough time has passed for a markedly different situation to obtain. By this means a story is told. The other type is *narrow sequentiality*. What is important here is motion. By making very small changes in the position of, say, a person's arm or a bird's wing, the representation of motion is achieved. Unlike cases of broad sequentiality, no actual course of events is narrated, but, as with early modern forms of animation, the images are made to appear as if they are moving. In only a few cases is it hard to distinguish clearly between the two forms of sequentiality.

Broad sequentiality is not common (we have so far only identified about a couple of dozen examples), but it is common enough for us to clearly identify the type. An example is seen on an Early Classic vessel, now in the Berlin Museum für Völkerkunde (fig. 3), of which one half shows a Maya *lit-de-parade* accompanied by mourning figures, and the

3. Not only do the types cover most of the corpus, but deviations from the patterns also seem to be significant. In other words, the exceptions may sometimes be said to confirm the rule(s). On K1092 a scene featuring inebriated people is shown. This painting does not fit any of the patterns. It seems as if the painter intentionally chose a disorderly general organization in order to convey disorderliness. Other examples are K1182, K1558, and a number of vessel paintings showing supernatural companion spirits (*wayob*). In the latter instances it is as if the deviation from the organizational pattern appears to convey a supernatural world, fit for the supernaturals that inhabit it.

chosen as examples (see fig. 4). The different sequences, depending on the way they refer to use the general concept of symbolic convention in which the total sequence containing equally many as two smaller ones, is represented by two glyph rows or decorative bands (fig. 3).

Distinctive typology, although the types perfectly or not.³

ways in which the sequences are presented. One is *broad* and seen each sequence as a single unit to obtain. By *sequentiality*. What is significant in the position of motion is the actual course of the sequence of animation, the only a few cases is of sequentiality. far only identified enough for us to early Classic vessel, of which one half of the figures, and the

ions from the patterns may sometimes be said that a single person is shown. The painter intentionally disorderliness. Other signs showing supernatural events if the deviation from the world, fit for the super-



Fig. 1 K2023 (from Kerr 1990: 203). Copyright: Justin Kerr



Fig. 2 K2208 (from Kerr 1990: 221). Copyright: Justin Kerr

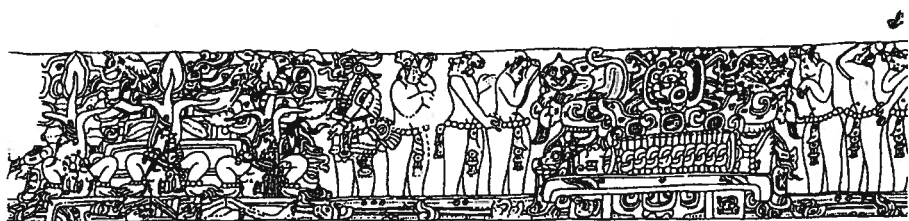


Fig. 3 Vessel from the Museum für Völkerkunde, Berlin (from Schele and Mathews 1998: fig. 3.27). Copyright: Justin Kerr

other half a resurrection scene showing the deceased reborn into the world of his ancestors. The vessel in plate 3 is another excellent example.

Several instances of narrow sequentiality appear on the vessel painting in fig. 4, which shows two successive hunting scenes involving the story of the Hero Twins well known from the Quiché epic *Popol Vuh*. The first scene captures the moment when a Hero Twin has just fired a clay pellet from his blowgun. Notice that the pellet is still hanging in the air. The target, a heron-like waterbird, unaware of the danger, is about to swallow a fish. Note the wings of the flying bird above the blowgun, as well as the bird below it. When we turn the vessel, the action moves forward in time about one second. As the clay bullet strikes the heron its long neck is thrown back by the power of the shot, and it drops the fish, which is then immediately taken by the bird below the blowgun. By changing the position of the wings of the flying bird the illusion of flapping wings is achieved. The scene, then, is presented in ultra-slow motion, so to speak. Since the totality of narrow sequences combines to tell a story, broad sequentiality may be said to obtain. The vessel painting thus also illustrates the point that the two types of sequentiality may combine.

The experience of sequentiality can be obtained by turning a vessel, so explicitly drawn frames are not needed. A very similar principle of achieving sequentiality was used in optical toys such as the *zoetropes* and *phenakistoscopes* invented in Europe in the first half of the 19th century. The zoetrope "contained a series of drawings on a narrow strip of paper inside a revolving drum [with slots to look through]" (Thompson and Bordwell 1993: 4-5). Such "moving pictures" are often regarded as forerunners of the cinema, but they are also very close to the way in which we think Maya vessels were "read".

Among the three major ways of organizing images one, namely the bAd type, is structurally incompatible with sequentiality, since there is only one major scene. Both of the remaining types, AxBy and ABC, allow for sequentiality since both contain two or more images of equal importance.

Although we have implied in this section that the individual vessel is the typical medium for painted narratives, it is important to point out that there are stories which seem to extend over several vessels, each telling its part of the story. Prominent examples of this phenomenon, which, for want of a better term, we might call *network sequentiality*, are the story of the sacrifice of the Jaguar Baby (fig. 2) and the story of the snake, the old man, and the woman (Robicsek and Hales 1981: 113-118).

used reborn into the
 er excellent example.
 on the vessel paint-
 scenes involving the
 iché epic *Popol Vuh*.
 Twin has just fired a
 at is still hanging in
 re of the danger, is
 ying bird above the
 n the vessel, the ac-
 ie clay bullet strikes
 r of the shot, and it
 the bird below the
 he flying bird the il-
 1, is presented in ul-
 f narrow sequences
 said to obtain. The
 he two types of se-

by turning a vessel,
 similar principle of
 as the *zoetropes* and
 of the 19th century.
 arrow strip of paper
]” (Thompson and
 often regarded as
 close to the way in

es one, namely the
 iality, since there is
 AxBy and ABC, al-
 re images of equal

individual vessel is
 ortant to point out
 veral vessels, each
 this phenomenon,
 rk *sequentiality*, are
 nd the story of the
 les 1981: 113-118).

Unfortunately it is difficult to know how such thematically related vase paintings functioned in the lives of the ruling elite – we do not even know how they functioned in their deaths. In other words, although we may assume that the known examples have been stolen from elite tombs, we do not know whether a particular series of examples come from one and the same tomb.

2.3. Determining the directional decoding of sequential text-image pairing

For the modern student of Maya vase paintings who has only vague insights into the stories they tell, it is often difficult to determine which scene comes first. There are, for instance, cases in which two persons are shown going through a series of rituals. In order to fit the description into the limited space of the wall of the vessel, the artist does not show both persons going through all parts of the ritual but instead shows each person going through one part of the ritual only (K5445; cf. also K5351). In these cases it is very difficult to determine the starting point. Although the Maya artists did not use any special devices to help the viewer determine the direction of decoding, there are nevertheless often thematic or visual clues by which the viewer may be helped.

Since stories told by vase paintings apparently always constitute part of the shared cultural knowledge of the Maya elite, the *theme* of the painting provides clues as to where decoding should start. In some cases, such as paintings referring to the theme of the resurrection of the maize god (some examples are Reents-Budet 1994: 209 and K5351), even the modern student knows enough of the content from related pictorial materials and orally transmitted myths to be able to roughly identify a particular sequence in the larger story. In other cases, which are rare, the action is of such a common nature that the cultural boundaries do not obstruct the interpretation of sequentiality (see figs. 3-4).

The *visual* clues to directionality are diverse and subtle. Sometimes there is an overall “line” in the composition (K2352, K5445) and sometimes the glance of a central person indicates the direction (the Princeton Vase).

3. The techniques and idioms of Maya sequential art

Having demonstrated that the Classic Maya developed sequential art, we shall now be concerned with a number of formal traits of a more

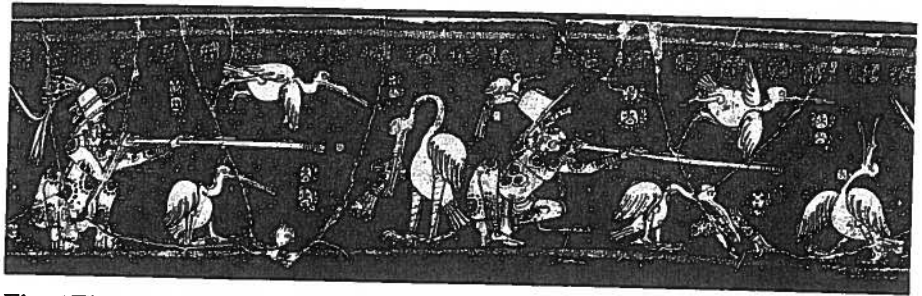


Fig. 4 The "Blowgunner" Vessel (K4151; from Kerr 1992: 466). Copyright: Justin Kerr

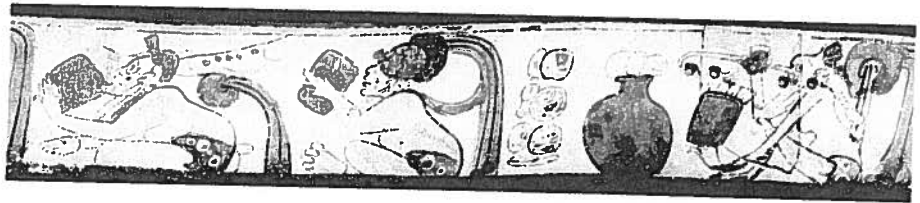


Fig. 5 K4377 (from Kerr 1992: 483). Copyright: Justin Kerr

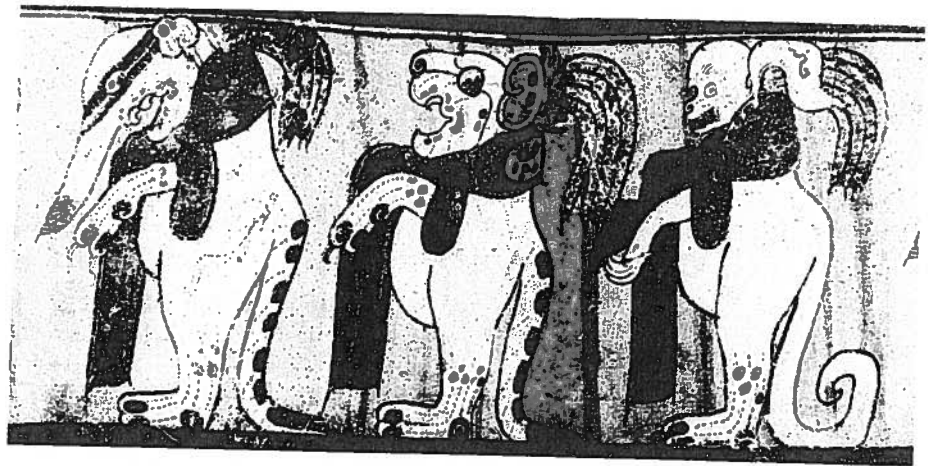


Fig. 6 K4947 (from Kerr 1994: 622). Copyright: Justin Kerr



Copyright: Justin Kerr



specific nature that this Maya subcategory of visual art shares with modern comics. The most common forms of expressive features, idioms, graphic conventions or “grammar” (Eisner’s term, 1986: 7) found both in comics and in Maya sequential art are discussed below.

3.1. Conjunction of text and image

Although sequential art without texts does exist, it is fair to say that it is through the combination of image and text, i.e. of showing and telling, that the genre most markedly distinguishes itself from other art forms and achieves a special form of expressivity. Scott McCloud lists a number of categories of text-image combinations (1993: 152-155) found in today’s comics. Two of these categories, the *additive* and the *interdependent* combinations can be found in Maya sequential art. The *additive* combination occurs when “words amplify or elaborate on an image or vice versa” (McCloud 1993: 154). Although we have not yet found good examples, such surely occur, since additive combination is the rule in Maya non-sequential art represented by stelae and codices. More common is the *interdependent combination*, in which “words and pictures go hand in hand to convey an idea that neither could alone” (McCloud 1993: 155). In such combinations, hieroglyphic texts arranged in columns, sometimes serving as boundaries between the scenes (as in the AxB type), frequently provide important background information on the depicted scenes. Furthermore, text placed in front of the characters, often attached to the mouth by speech-lines, may report what the actors of the event say or feel. A good example appears in the left-hand scene of plate 3, in which the old man is saying, “the rabbit took my stick, my clothes, and my tribute.” Stuart (1993) interprets this as a lament that he is not able to hand over his tribute to the Sun God, seated on his throne to the right.

Finally, there is a third type of text-image combination used by the Maya, the so-called *embedded texts*, which we have already touched upon. While the integration of elements from the writing system into images is a common phenomenon in Maya art, it is relatively rare in modern comics, although there are well-known examples such as Uncle Scrooge being depicted with \$ signs in his eyes. This difference is partly due to the fact that many Maya hieroglyphs and images are closely related (Nielsen 1998: 4), whereas our alphabetic signs have developed into arbitrary signs bearing no apparent resemblance to the material world.

3.2. Pictorial representations of motion, sound and smell

As already noted, the Mayas were able to use images in a movie-like fashion. This kind of sequentiality, which we have called *narrow*, was achieved by changing the positions of the arms, legs, or head of the characters depicted in the scenes. An example in addition to those in fig. 4 is provided in fig. 5, which is taken from a vessel decorated with a scene showing supernaturals drinking. In three sequences we are able to follow the movement of the drinking cup. In the first scene the cup is close to a large jar which probably holds the liquid and is held almost vertically. In the next scene the cup is raised, and is now slightly more tilted towards the mouth of the character. In the last scene the character is drinking from the cup. By rotating the vessel we can almost see a fully animated sequence (for additional examples see K3649, K3844, K4619, K4649, K4989, K5371, K5421, K5454, Robicsek and Hales 1981: fig. 9; for an example outside of the ceramic corpus see Bonampak Room 1, as discussed by Miller 1988: 321). A device to illustrate motion within one and the same picture may be found on a vessel which shows a ballgame in progress (plate 4). Reents-Budet (1994: 269) argues that the undulating lines or curlicues that float around the scene are speech-lines tying the hieroglyphic captions to the figures. Since there are more curlicues than figures we prefer to interpret the function of the curlicues in a different way. We suggest that their function is similar to that of the curlicues found in, say, Hergé's *Tintin*, where they may occur behind a running man to indicate speed or quick motion. Such a function clearly fits a depiction of a ballgame scene, in which speed and motion are central ingredients.

As for the representation of sound, only a few possible examples can be found, not counting the combination of glyphic text and speech-lines described above. On K4613 two jaguar-like felines appear to be roaring or declaiming fierce words, since speech-balloons with a flame-like outline emanate from their mouths (see also K3924). If our interpretation is correct, this is a unique example of the shape of a speech-balloon being changed in order to indicate the character or emotion expressed by the voice. In contrast, this technique is very common in modern sequential art (Eisner 1986: 34). Two additional ways of indicating sound or breath are seen in association with animals. Sometimes small undulating lines emanate from the nostrils of deer (plate 3; see also Robicsek and Hales 1981: no. 43 and fig. 64); on K5367 smoke-like scrolls emanate from the mouth of a bat; and on a vessel published by Robicsek and

and smell

ges in a movie-like called *narrow*, was gs, or head of the ldition to those in el decorated with a iences we are able rst scene the cup is and is held almost now slightly more : scene the charac- e can almost see a e K3649, K3844, obicsek and Hales orpus see Bonam- device to illustrate found on a vessel ents-Budet (1994: at float around the ns to the figures. er to interpret the st that their func- y, Hergé's Tintin, ate speed or quick allgame scene, in

le examples can be : and speech-lines ear to be roaring h a flame-like out- our interpretation ech-balloon being r expressed by the modern sequential licating sound or ies small undulat- see also Robicsek like scrolls emanate by Robicsek and

Hales (1981: fig. 17a) a deity appears to be screaming out or perhaps rather vomiting a very large and strange personified speech-scroll.

Finally, the Mayas also seem to have had ways of visualizing smells. Occasionally the skeletal inhabitants of the feared underworld-place Xibalba are shown with various colored smoke-like scrolls emerging from their navels or posteriors. This appears to be a way of depicting the foul smell of the more or less decayed creatures of the Xibalba (cf. K718, K3924).

3.3. Scene-over-setting

In Maya imagery characters and objects always appear in the foreground, normally tied to a *ground line* (Schele and Miller 1986: 36; Reents-Budet 1994: 9). As a pictorial device this is similar to the principle of *scene-over-setting* (our term), which is a common trait of modern comics, as noted by Fuchs and Reitberger (1978: 48). The scene-over-setting principle operates in a great many painted ceramics, and appears almost never to be deviated from. Apart from persons and animals, the outlines of palace walls, a stylized mountain, curtains, steps of a ballcourt, vessels or the like may occur in the foreground, but never very prominently and often only partially depicted so as to merely suggest the setting of the scene (cf. K5445 and Reents-Budet 1994: figs. 3.4 and 4.44). As noted by Robicsek and Hales (1981: 9), the background is usually empty (i.e., represented by monochrome coloring, as in fig. 1). Only rarely is a naturalistic and detailed background with a landscape, trees, temples, crowds of people, etc. represented. In our survey we have only encountered one clear example of this. On the Early Classic vessel from Berlin noted above (fig. 3), the resurrection scene has a complete background, showing mountains, a temple, and trees with animals among their branches. The result is a crowded image in which it is difficult to distinguish the individual elements. This is in stark contrast to the vessels which have a scene-over-setting composition where the viewer's attention is not distracted in any way.

3.4. Gesture and positioning of human and animal figures

In modern comics almost all types of emotions and attitudes can be expressed graphically by means of what Eisner calls a "grammar of gestures" (1986: 149). Here gestures and body language are schematized

to such a degree that we easily recognize and understand the characters' moods. Gestures and body positions were important to the Mayas as well, and the meanings of some of the gestures appear to be common to both the Mayas and to us. Some gestures, however, are culture-specific and most of the many different Maya gestures and bodily positions have not yet been interpreted (Kurbjuhn 1980: 117-184). The meanings of a few specific types of gestures and positions can, however, be determined with some certainty. Among these is "the posture of royal ease" (Schaffer 1986), a position in which rulers sit cross-legged upon their thrones, sometimes with one leg hanging over the throne, and with hands gesticulating towards a lesser noble, scribe, or other subordinate. No doubt this was a position associated with powerful and influential persons (e.g., K5353, K5450, K5453). Additionally, there is a subordinate attitude, which presumably expresses respect for higher-ranking individuals (cf. the old man in plate 3; other examples are K4959 and K5082). Nevertheless, there are plenty of other examples which at the present are difficult to associate with specific emotions, rank etc. (K791, K4412, K4905, K5374).

By changing body proportions from the normal to the abnormal, modern comic artists make humans and animals appear funny. According to Fuchs and Reitberger (1978: 50) the proportions between the head and the body of figures in humorous comics frequently change from 1:8 to 1:3. A similar change in body proportions is found in Maya sequential art, although not necessarily in the ratio 1:3. The characters that undergo these changes are always supernatural beings, such as the animal companion spirits (*wayob*) or the denizens of Xibalba, the Maya Underworld (fig. 6; see, in addition, K1196, K3450, K4011). These characters are sometimes weird mixtures of humans and animals or different species of animals (K5082; Robicsek and Hales 1981: nos. 49-53; Grube and Nahm 1994). It is possible that the Maya sought to ridicule the creatures of the Otherworld, but a more plausible explanation is that abnormal bodies are a trademark of supernatural beings; they seem to have conveyed something terrifying and threatening, as we imagine the world of spirits and gods to have been for the ancient Maya.

3.5. Color and light

The broad spectrum of colors used to paint the polychrome vessels served mainly to enhance the realism of the representations. Some colors, like red, had symbolic values, and could be associated with various reli-

derstand the charac-
 portant to the Mayas
 ppear to be common
 ver, are culture-spe-
 and bodily positions
 17-184). The mean-
 ns can, however, be
 the posture of royal
 it cross-legged upon
 ver the throne, and
 ibe, or other subor-
 th powerful and in-
 ditionally, there is a
 respect for higher-
 other examples are
 of other examples
 specific emotions,

l to the abnormal,
 ear funny. Accord-
 rtions between the
 frequently change
 is is found in Maya
 1:3. The characters
 beings, such as the
 Xibalba, the Maya
 10, K4011). These
 and animals or dif-
 les 1981: nos. 49-
 aya sought to ridi-
 usible explanation
 tural beings; they
 hreatening, as we
 the ancient Maya.

polychrome vessels
 ions. Some colors,
 with various reli-

gious concepts, deities, etc., but colors were never used in the expres-
 sive manner that we know so well from modern comics, such as an en-
 vious man turning green, a sick one yellow or a freezing one blue. We do
 find variation in skin colors, but it seems to serve other purposes. Skin
 colors may range from light brown to dark brown and near black
 (K791, K4412, K4549, K5453). Although some of the variation may be
 due to body painting, it might also indicate different ethnic groups or rank.

Practically no examples of the use of light effects and shadows to
 produce an impression of volume or three-dimensionality of persons
 and objects are known (Schele and Miller 1986: 35). For some reason
 the Mayas did not develop this technique. Not even in scenes that
 clearly take place at night, in dark chambers or caves and where torches
 are in use, do we find the use of shadows (e.g. K5445 and Reents-Budet
 1994: fig. 5.9.).

3.6. Perspective

The Maya only used normal perspective in their images and never the
 bird's or worm's eye view. Furthermore, persons and objects were always
 depicted two-dimensionally. As Schele and Miller (1986: 36) observe,
 "spatial illusion in two-dimensional art was severely limited, and the
 optical devices used to imply position in space were very few." Any im-
 pression of perspective or relative position in space was indicated only
 by overlapping, the basic orientation point being the groundline (e.g.
 K767, K3413, K3814).

3.7. Frames

It is equally rare to see an expressive use of the shapes and sizes of the
 frames. If present, the frames serve mainly as neutral devices to separate
 the scenes or to indicate the passing of time. As in modern comics, the
 frames "contain and transport the look of the reader" (Eisner 1986:
 57). Maya frames are generally of a very simple rectangular shape and
 of uniform size.⁴

4. K5351 is an exception. It shows a sequence featuring the so-called Paddler Gods in
 their canoes. The images have the rounded cruciform shape that symbolizes the
 entrance point to the watery Underworld (Freidel et al. 1993: 89-94; 215-218), the
 place towards which the Paddler Gods are travelling. In one of the images, the
 canoe is tilting and about to sink. In this unique example the frame indicates the
 setting of the scene.

4. Discussion

In the course of this investigation we have attempted to identify some of the principles according to which Maya sequential art works and to distinguish useful categories and establish a terminology of use in the analysis of Maya visual communication in general and sequential art in particular. In addition to presenting these analytical tools, however, we would also like to contribute to the discussion of comics and culture by introducing a broader culture historical perspective.

It is possible to argue that the Mayas, for all we know, produced America's first comics. Maya sequential art certainly shares many of its features with modern comics, so whether we choose to actually call it a form of comic is really just a matter of where to draw arbitrary boundaries in terms of definition. To look for America's first comics is in itself only a superficially interesting project since representational techniques do not tell the whole story of Maya "comics." By confining oneself to comparative, formal statements one runs the risk of introducing an evolutionary point-of-view. One of the formal differences is that the stories the Maya artists tell are few in numbers and abbreviated to one or two scenes. In contrast, the number of Western comics is massive and they often tell whole stories. This formal difference, however, requires a social explanation. We attribute the difference to the fact that the Mayas were more unified in terms of shared cultural knowledge than members of Western society are. For the Mayas the messages existed before the medium, i.e., as orally transmitted myths and stories. The artists would elaborate on, but not create narratives. By combining the techniques of narrow and broad sequentiality more consistently the Mayas could easily have told whole stories just as Western comics do, but as far as we know they did not, apparently because there was no need for it. One similarity is that artistic achievements exist both in Maya sequential art and Western comics. Again, we should look for social explanations. The painted Maya vessels were a form of "social currency" (Reents-Budet 1994: 88) in an exchange network of goods and prestige, whereas Western comics are primarily commercial. The former were exchanged for prestige (of the donor), the latter for both money and prestige (of the artist). From the perspective of a purely formal approach to art forms one might opine that the Maya artists could be placed on an evolutionary ladder close to the top steps represented by Western comics. A few steps more, such as the consistent use of combinations of narrow and broad sequentiality and the introduction of point-of-view would bring them up to the standards of today's Western comic artists. The best ar-

oted to identify some of
al art works and to dis-
linology of use in the
al and sequential art in
ical tools, however, we
comics and culture by
ve.

ll we know, produced
nly shares many of its
se to actually call it a
draw arbitrary bound-
first comics is in itself
entational techniques
confining oneself to
f introducing an evo-
ces is that the stories
eviated to one or two
is massive and they
ever, requires a social
that the Mayas were
ge than members of
isted before the me-
s. The artists would
g the techniques of
e Mayas could eas-
lo, but as far as we
o need for it. One
Maya sequential art
l explanations. The
cy" (Reents-Budet
tice, whereas West-
ere exchanged for
nd prestige (of the
roach to art forms
d on an evolution-
ern comics. A few
ons of narrow and
view would bring
artists. The best ar-

gument against the evolutionary approach, however, is that the conditions that brought about Western and Maya sequential text-image pairing in the first place are so radically different that this approach fails even at the outset: the conditions are, in fact, diametrically opposed. In Western society the combination of text and image was, for centuries, considered a debased form of communication. Only artists who directed their work towards a mass audience, predominantly the lower classes, dared venture into text-image pairing. The Mayas, however, considered the combination of text and image the most exquisite and exclusive⁵ form of artistic communication, and reserved it for elite consumption only.

Thus, more than a thousand years apart and under diametrically opposed social conditions art forms arose that share a surprising number of formal features.

5. Pseudo-writing on vessels of lesser quality attests both to the prestige of writing and to the limited degree of literacy in Maya society.