NEEMIAS SANTOS DA ROSA, LAURA FERNÁNDEZ-MACÍAS, TOMMASO MATTIOLI AND MARGARITA DÍAZ-ANDREU[1,2]

DANCE SCENES IN LEVANTINE ROCK ART (SPAIN): A CRITICAL REVIEW

Summary. *We argue here that it is possible to study dance in prehistoric societies by analysing how it was depicted in rock art. For this research to be effective, subjectivity must be minimised by analysing the images systematically. We adapt a series of criteria first established in Garfinkel's 'archaeology of dance' and apply them to our case study of dance representations in Spanish Levantine rock art. We conclude that only twelve scenes fit the typical parameters of dance representations. By studying this set of images, we are able to identify dances with a single individual, couples and groups. We suggest that dances took place in more than one context and followed specific cultural patterns, among which we highlight gender identity.*

INTRODUCTION

Dance, defined as a form of non-verbal communication that combines the visual, kinaesthetic (the sensation of body motion) and aesthetic aspects of human movement with the auditory dimension of musical sounds (Kaeppler 1992, 196), is a little explored subject in European rock art studies. However, in the last two decades there has been a burgeoning of interest in its analysis based on the work of the Israeli archaeologist Yosef Garfinkel who developed what he called the 'archaeology of dance' (1998; 2003, 102). He initially focused on depictions of dance in the Near East and south-eastern Europe during the Natufian, Neolithic and Chalcolithic cultures (Garfinkel 1998). However, his horizons have widened in recent years to consider dance in Europe from the Palaeolithic to the Neolithic, although without mentioning the Iberian Peninsula (Garfinkel 2010; 2018). While it is true that the research carried out into depictions of dance in the Iberian area is largely unknown outside Spain, it may be that this represents the largest body of published evidence related to this subject. In this article we refer to the material interpreted as such in Levantine Art, a rock art tradition developed in an area covering approximately 600 by 250 km on the eastern edge of the Iberian Peninsula. Located in mountainous regions, the more than 800 rock art sites are found in shallow limestone or sandstone rock shelters, mainly at altitudes of between 300 and 1000 m. Without wishing to enter into the debate, we should mention that the chronology of this rock art has been a matter for disagreement among researchers for the more than one hundred years since its discovery. Currently, the main point of discrepancy lies in establishing

its origin, which some place in the Epipalaeolithic or Mesolithic (Viñas *et al*. 2016a; Viñas *et al*. 2016b; Mateo Saura 2019), while others advance its appearance to the early Neolithic (Villaverde *et al*. 2012; López-Montalvo 2018a). However, most scholars agree that at least part of its development took place during the Neolithic period (5500–4000 BC).

The only synthesis of Levantine Art dance scenes available until now was published in 1974 (Jordá 1974). It compiles dances linked to phallic symbolism, agriculture, divinity worship and ceremonies related to marriage, fertility, war and tauromachy events. As we will see below, many scholars, both before and after Jordá, have interpreted certain Levantine scenes as dance. However, the lack of clear parameters with minimum specific criteria reveals that subjectivity has played an important role in the interpretation of those scenes, which have not always been described in the same way. Thus, for example, the figures from Barranco del Pajarejo have been variously described by different authors as depicting dance, surrender, harvesting or other agricultural tasks. Therefore, the need to establish analytical criteria appears to be essential, which is why we have decided to adapt those of Garfinkel to Levantine Art.

In this study we first review the role of dance in pre-industrial societies and then suggest a study methodology based on Yosef Garfinkel's example. The aim of applying those criteria to the analysis of all the scenes interpreted as dance is to examine to what degree we can be sure of that proffered interpretation. In the analysis we classify the scenes according to the number of people in them (a single individual, two individuals and more than two individuals). We distinguish between scenes we believe are probably of dances, those that are questionable, and those we rule out. With the list so refined, we then analyse the twelve scenes accepted as depicting dance. We highlight their geographical distribution and examine aspects such as the dynamism of the figures in the composition; the ornamentation and objects associated with the dances; the types of dance, the questions of gender arising from them; the interaction between the people and the direction of the movements depicted. Finally, we comment on the function of such scenes in relation to Levantine Art.

DANCE AS A CULTURAL PRACTICE IN PRE-INDUSTRIAL SOCIETIES

Numerous ethnographic studies have demonstrated the universality of this cultural practice in pre-industrial societies. Various reasons have been put forward to explain the fact that there are no known human societies in which it does not exist. On the one hand, dance is presented as a way of transmitting the knowledge, rules and values related to the culture and society (Katz 1982; Bundo 2001). Moreover, it contributes to maintaining or extending social cohesion, dissipating tensions within the group and reinforcing the position of each individual in the collective structure (Marshall 1969; Feld 1982 (2012); Seeger 2003). In other cases, dance serves as a mnemonic device used to communicate knowledge of the sacred world and to access the supernatural (Hanna 1987; Mguni 2015). Finally, in many societies dance participates in the construction, transmission and reinforcement of the sociocultural performativity of binary gender (cf. Butler 1993), as it has been observed that both men and women participate in the activity in close proximity but without mixing (Garfinkel 2003).

Dance plays a crucial role in a variety of contexts including: rites of passage; curing illnesses; rituals related to fertility, hunting, food harvesting, agricultural activities and armed conflict; cults to honour the dead; and ceremonies to communicate with mythological beings or ancestor spirits (Morley 2013; Wulff 2015; Guenther 2020). Ethnology also tells us that certain

objects played a fundamental role in the dances of pre-industrial societies, allowing the dancers to assume an aspect similar to that of the spirits, thus impressing the audience participating in the event (Halley 2018; Hayden 2018). In some cases, the belief that specific ornamental elements were sources of supernatural energies has been documented. For example, in a process of sympathetic magic, a person would have been able to take on the powers of a certain sacred animal by wearing its skin or donning a mask representing it (Jolly 2002; Lewis-Williams and Challis 2011).

THEORETICAL-METHODOLOGICAL CONSIDERATIONS

In this study, we consider as scenes those images consisting of human motifs exhibiting an apparent technical and stylistic coherence with each other and who, from a narrative perspective, appear to be involved in the same action. In certain cases a scene can be composed of a single human figure, who concentrates all the narrative content associated with the event depicted. In this respect, it should be pointed out that the dance scenes are not 'photographs', but rather an artistic transformation of the reality they aim to illustrate (Garfinkel 1998). Taking this limitation into account, the study of dance scenes offers us a general approach to the characteristics of the activity, although more minor details of the action cannot be ascertained or reconstructed archaeologically (Garfinkel 2003; Morley 2005).

Following Garfinkel's insights, we distinguish in our analysis of Levantine Art dance scenes between two major types of analytical criteria: that dealing with the individuals who make up the composition and that which concerns the dance depicted. In the former, we highlight both the dynamism reflected by the posture of the dancers and the objects or ornaments they are wearing/carrying. With regard to the posture, the dancers are generally depicted with their arms and/or legs flexed, arms raised, torsos inclined or curved, etc. (Garfinkel 2003, 19). This dynamism is what allows even isolated anthropomorphs with this type of posture to be associated with a dance, even though one cannot apply to the lone figures any of the second type of criteria we specify below. On the other hand, the objects or ornamentation constitute the paraphernalia that the ethnological examples always identify in association with this activity: hairstyles, headdresses, masks, attire or body adornments (Garfinkel 2003, 34–41; 2010, 206).

The second group of analytical criteria refers to the representation of the dance itself. We single out the following: the type of dance according to the number of individuals, their gender, the type of interaction between them, and the direction of their movements. We do not take into account criteria regarding the place where the dance is performed in its pictorial manifestation, nor the time (day or night or period of the year) (Garfinkel 2003, 54–7). This is simply because those aspects are not clearly shown in Levantine Art. In terms of the type of dance, in his publications Garfinkel is assuming that the dance involves various participants when he states that they must be represented by more than one figure for the scene to be considered as complete (Garfinkel 2010, 207). However, in our analysis we decided to differentiate between scenes with a single dancer, a couple, and a group (three or more participants).

Garfinkel does not take into his account individuals dancing alone. However, we know from ethnographic sources that this is one of the methods used by shamans/ritual specialists for entering into a trance. This is not the only activity such individuals carry out alone, as they are also known for undertaking periods of social isolation when seeking spirit visions (Winkelman 2017) and even for creating rock art (Whitley 2011, 311). Furthermore, we have to consider that a single dancer could be a part that represents the whole (synecdoche or, following Lewis-Williams 1999,

'fragments of dance'). In other words, they actually represent a dance of more than one individual, something that an observer who understands the cultural conventions would have no problem in identifying correctly. Garfinkel (1998; 2003; 2010) also contemplates the possibility of the representation of a couple of dancers, as well as differentiating between circular and linear collective dances.

As far as gender is concerned, the dance scenes can consist of male or female figures and this identification provides information as to which members of the social group would have been involved. As Garfinkel indicates (2003, 47–54, 72; 2010, 206), ethnographers have observed that both men and women participate very closely in the 'performance', although in the case of collective dances they do not mix within the same line or circle (Marshall 1969; Biesele 1978; Katz 1982).

The last two criteria to consider are the interaction between the individuals and the direction of movement. In the former, in dances with two or more participants, they are generally placed in three possible ways: near to each other without any contact; in the same way but with their hands or shoulders touching; or, finally, embracing (Garfinkel 2003, 24). In any of these three scenarios, the figures have to demonstrate synchrony, exhibiting similar postures that indicate they are performing the same type of movement (Garfinkel 1998, 222; 2003, 60; 2010, 209). With regard to the direction of movement, Garfinkel notes that it is important to observe the orientation of the individuals' bodies, as that indicates whether the depicted dance is being performed with movements towards the right or the left (clockwise or anti-clockwise in the case of circular dances), or whether they are dancing on the spot, i.e. without moving in any direction. In the scenes with two or more participants, they tend to be depicted executing movements that follow a uniform direction. This, linked to the maintenance of a constant space between the figures, contributes to the impression of a rhythmical movement (Garfinkel 1998, 210; 2003, 19).

ANALYSIS OF THE DANCE SCENES

In this section we analyse the scenes published as dances, applying to them the theoretical-methodological criteria established in the previous section. For reasons of space, we will not deal with each possible example in detail here[1]; in Tables 1 to 3 we also list the main authors who have written about each scene. We divide the scenes into three large groups according to the number of dancers (one, two or several) as this is an important aspect concerning the type of dance they could represent. Throughout our analysis we point out those occasions that have led us to consider a scene as doubtful due to its state of preservation or because there are equally valid alternative interpretations. We also indicate those that we rule out as dance, and finally specify the representations that, according to our criteria, present the typical characteristics of dance scenes. All the criteria specified above (body posture, objects/ornamentation, type of interaction and direction of movement) are essential in deciding whether a scene depicts dance or not, while the gender criterion is merely informative.

As far as scenes with a single individual are concerned, we only have five described as such in the bibliography on Levantine rock art. The poor preservation state of the scenes depicted in the Abrigo de la Cañada de Marco (Fig. 2a, Table 2) and in the Cova de Rossegadors, also known as El Polvorín (Fig. 2b, Table 2), obliges us to consider them as doubtful, as we cannot be at all certain

[1] Details of this scenes of the sites located in the northern area can be found in Santos da Rosa *et al.* (2021)

TABLE 1
Dance scenes in Levantine Art, accepted according to our classification

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Abrigo del Tío Garroso (Alacón, Teruel)	1.a.	dance (Beltrán and Royo 2005; Jordán 2006b, 86; Bea 2018, 258)	curved torso, arms raised, and legs flexed	bow, headdress, and knee adornment	individual	male	-	without horizontal displacement
Cueva de la Vieja (Alpera, Albacete) Scene 1	1.c.	warrior deity (Cabré 1915, 195-7); hunting god (Jordá 1966, 65); mythological hero dancing (Ripoll 1968, 170-2); shaman dancing on animals (Jordán 2001-02, 47; Jordán 2020, 40)	arms flexed projected upwards and legs open	bow, arrows, and headdress	individual	male	-	without horizontal displacement
Cueva de la Vieja (Alpera, Albacete) Scene 2	1.c.	figure not interpreted as a dancer in previous studies	arms flexed projected forwards and upwards; legs open and flexed	bow, arrows and headdress	individual	male	-	without horizontal displacement
Cuevas del Engarbo I (Santiago de la Espada-Pontones, Jaén)	1.b	dance (Soria Lerma and López Payer 1999, 157; Mateo Saura 2013, 45)	torso inclined, arms flexed and projected upwards and legs flexed	hairstyle or mask	individual	male	-	left
Cingle de la Mola Remígia (Ares del Maestrat, Castellón)	3.a.	dance (Ripoll 1963); agricultural dance (Jordá 1970-71, 41)	inclined torso	bull mask, baby deer headdress, bow, arrow, adornments in the form of animal tails	couple	male	proximity with contact between the figures and indications of synchrony	without horizontal displacement

(Continues)

TABLE 1
(Continued)

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Cova Remígia (Ares del Maestrat, Castellón) Scene 1	3.b.	phallic dance (Jordá 1974, 46)	inclined torso, arms open and raised	bows, arrows, masks? and adornments in the form of animal tails	couple	male	proximity with contact between the figures and indications of synchrony	without horizontal displacement
Abrigo de la Risca I (Moratalla, Murcia)	3.c.	female divinities (Jordán 2006b, 90); scene between mother and daughter or a ritual dance (Lillo and Lillo 1979; García del Toro 1986-87)	torso slightly curved, arms flexed and one of them projected upwards	hairstyle and adornments on the elbows	couple	female	proximity without contact between the figures and with indications of synchrony	without horizontal displacement
Cueva de Muriecho L (Colungo, Huesca)	3.b.	possible dancers (Baldellou *et al.* 2000, 52)	inclined torso and arms projected forwards	-	collective linear	male	proximity with contact between the figures and indications of synchrony	without horizontal displacement
Abrigo de los Trepadores (Alacón, Teruel)	3.b.	celebration or ritual dance (Molinos 1986-87, 305)	inclined torso, arms raised and legs open	bows	collective linear	male	proximity with contact between the figures and indications of synchrony	without horizontal displacement
Cova Remígia (Ares del Maestrat, Castellón) Scene 2	3.c.	dance of archers (Porcar 1945b, 150)	torso slightly inclined and arms raised	bows and adornment in the form of animal tails	collective linear	male	proximity with contact between the figures and indications of synchrony	without horizontal displacement
Abrigo de Voro (Quesa, Valencia)	3.d.	war dance or propitiator of hunting (Aparicio 1986-87, 370); parade or procession (Molinos 1986-87, 308)	curved and inclined torso, arms flexed, legs arched, and one knee flexed	bows, arrows, headdress, knee adornments, bags?	collective linear	male	proximity with/ without contact between the figures and with indications of synchrony	left

(Continues)

OXFORD JOURNAL OF ARCHAEOLOGY

TABLE 1
(Continued)

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Barranco de los Grajos (Cieza, Murcia)	3.e.	dance (Beltrán 1969); phallic dance (Jordá 1974, 44-5; Jordán 1995-96, 66; Beltrán 1998, 49); totemic ritual or shamanic initiation (Mateo Saura 2003, 258-9)	women: curved torso, arms flexed and projected upwards and downwards / men: arm raised to touch the figure alongside	women: attire men: -	collective linear	female/male	women: proximity without contact between the figures and with indications of synchrony / men: proximity with/ without contact between the figures and with indications of synchrony	women: without horizontal displacement/men: right

TABLE 2
Scenes that do not allow definitive classification as depictions of dance

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Abrigo de la Cañada de Marco (Alcaine, Teruel)	2.a	dance before an enthroned figure (Beltrán 1998, 49)	curved torso and raised arms	Arrows	individual?	indeterminate	-	left?
Cova de Rossegadors or El Polvorín (Pobla de Benifassà, Castellón)	2.b	hunting god (Jordá 1974); female dancer (Vilaseca 1947; Beltrán 1968, 22)	torso vertical, arms flexed upwards and legs apparently straight	stick or two rods	individual?	female	-	without horizontal displacement
Abrigo de los Arenales (Villar del Humo, Cuenca)	4	dance or ritual offering (Ruiz López 2017, 285)	torso slightly inclined, one arm raised and legs together or open	indeterminate elliptical object and possible elbow adornment	couple?	female?	proximity without contact and with apparent synchrony	?
Cova del Civil (Tírig, Castellón) Scene 1	7.a	ritual dance (Obermaier and Wernert 1919, 129; Viñas 1982, 118); passage through an area of vegetation or a river (López-Montalvo 2007, 154)	inclined torso with arms straight or flexed and projected forwards, downwards and upwards, while the legs are depicted as open or flexed	bow and arrows	collective?	male	proximity without contact and with partial indication of synchrony	right
Cova de la Saltadora (Les Coves de Vinromà, Castellón)	7.b	dance (Beltrán 1985, 119); the capture of an individual (Domingo et al. 2007, 158)	inclined torso, arms flexed and projected forwards or towards the head and the legs together or slightly open	bow and arrows? headdress of antennae, cord? or adornments hanging from the arms?	collective?	male	proximity with contact between the figures and partial indication of synchrony	left
Abrigo de Lucio or Gavidia (Bicorp, Valencia)	7.c	dance (Hernández Carrion and Gil 1998, 103)	inclined torso, arms straight or flexed and projected downwards or forwards and legs straight or in motion	hairstyles and elbow adornments	collective?	female	proximity with contact between the figures and with partial indication of synchrony	right

TABLE 3
Scenes ruled out as representations of dance

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Abrigo de la Vacada (Castellote, Teruel)	5.a	warrior-like dance (Ripoll 1961)	torso slightly inclined forwards, arms straight or flexed	bow and arrows; slingshot; adornment in the form of horse's tail; hair ending in plaits	couple	male	proximity without contact or indications of synchrony	without horizontal displacement
Abrigo del Ciervo or Cinto de las Letras (Bicorp, Valencia)	5.c	food harvesting scene (Mateo Saura 1995-96, 83); agricultural dance (Jordá 1970-71, 40)	torso inclined forwards, arm straight projected downwards and legs open and static; torso vertical, arms flexed and projected downwards/ upwards, legs in motion	feather on the head, elbow adornment (?), bag or load on the back, digging sticks or rhythm sticks; triangular hairstyle, elbow adornments	couple	female	proximity without contact or indications of synchrony	without horizontal displacement, left
Cueva de la Vieja (Alpera, Albacete) Scene 3	5.b	pair of female dancers (Jordá 1975, 178)	torso vertical, arm flexed towards the head and feet in walking position; torso vertical, arms flexed downwards and forwards	triangular hairstyle and adornment on the elbow	couple	female	proximity without contact or indications of synchrony	right
Roca dels Moros (Cogul, Lleida)	8.c	dance (Breuil 1908, 12); phallic dance (Jordá 1974, 43; Jordán 1995-96, 66)	the women present vertical torsos and in one case inclined, with the arms straight directed downwards or flexed and projecting forwards and the legs static, while the man presents the torso curved, the arms	the women have triangular hairstyles, elbow adornments and possible necklaces, while the man exhibits adornments on the knees	collective	female/male	proximity with/ without contact between the figures and without indications of synchrony	without horizontal displacement

(Continues)

TABLE 3
(Continued)

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
Cueva del Chopo (Obón, Teruel)	8.b	warrior-like confrontation, procession or ritual dance (Bea 2018, 293).	downwards and the legs static the individuals present the torso slightly curved and inclined forwards, with arms flexed or straight and projected in various directions, while the legs are open and in motion or together and apparently static	headdress of feathers, boomerangs, and a stick	collective	male	proximity with/ without contact between the figures and without indications of synchrony	left
Barranco del Pajarero (Albarracín, Teruel)	8.e	phallic dance (Almagro 1960); agricultural dance (Beltrán 1969; Jordá 1974, 47); animal worship (Piñón 1982, 139); harvesting vegetables (Mateo Saura 1995-96, 83; 2003, 260-2)	the human motifs present varied body postures, kneeling or standing, with the torso vertical or inclined forwards and with the arms flexed on the chest, raised, or lowered	headdress, rectilinear instruments?	collective	male/female	proximity without contact between the figures and without indications of synchrony	without horizontal displacement
Galería del Roure (Morella, Castellón)	8.d	warrior-like event (Molinos 1986-87, 299; Rubio et al. 2019, 230); warrior dance (Jordá 1974, 50)	torso inclined forwards, with arms and legs straight or flexed	bow and arrows		male	proximity with/ without contact between the figures and with apparent synchrony	multidirectional
Cova del Civil (Tírig, Castellón) Scene 2	8.a	warrior-like dance (Obermaier and Wernert 1919, 129;	the individuals exhibit different body postures, in general with the	bows and arrows, quiver, adornments on the elbows and feather headdress		male/female	proximity without contact between the figures and without	left, right and without horizontal displacement

(Continues)

TABLE 3
(Continued)

Name of the site, (municipality, province)	Scene		Human figures		Dance			
	Fig.	Interpretation in the bibliography	Body posture	Objects and ornamentation	Type of dance	Gender of the individuals	Type of interaction between the individuals	Direction of the movement
		Porcar 1945a, 32; Jordá 1975, 162)	torso inclined forwards, the arms flexed and projected in various directions and the legs together, open or with one knee flexed.				indications of synchrony	
Abrigo Grande de Minateda (Hellín, Albacete)	8.f	ceremonial dance related to marriage (Jordá 1974, 45-46)	torso vertical or slightly inclined, with arms flexed upwards or forwards and legs open or straight in a static position	the man has adornments on the neck and hip; the woman is smaller with a hairstyle and is carrying an indeterminate object divided into three lines		female/male	proximity with/ without contact between the figures and without indications of synchrony	without horizontal displacement
Abrigo de la Solana de las Covachas (Nerpio, Albacete)	8.g	phallic dance (Alonso 1980, 216) or initiation dance (Jordán 2006a, 36)	the human motifs present a variety of body postures, with the torso vertical or inclined, the arms straight or flexed and the legs together, open or in motion	hairstyles and possible adornments on the elbows		female/male?	proximity without contact between the figures and without indications of synchrony	left, right and without horizontal displacement

about their interpretation. In terms of the postures at the three remaining sites, we observe that a distinct dynamism is expressed in all parts of the body: the torso can be curved or inclined; the arms are depicted as raised or projecting upwards; and the legs can appear as flexed or open. It is pertinent to indicate that in the Cueva de la Vieja the large dancer appears to be duplicated on a smaller scale in an upper part of the panel, although the smaller individual has not been considered as a dance participant in the literature. Despite the morphological similarity between these two individuals, the distance and the scale difference between them make it risky to state that they are taking part in the same action. Therefore, we consider them to form two separate scenes and we have added the latter to our list. This means there are four scenes we consider are most likely to be depicting an individual dancing: two at the Cueva de la Vieja and on each at the Abrigo del Tío Garroso and the Cuevas del Engarbo I (Fig. 1, Table 1). Objects and ornaments can be seen on all the figures, with the representation of bows and arrows, headdresses and body adornments being of particular note. We also perceive a possible mask or headdress on the Cuevas del Engarbo I dancer. We should mention that all the individuals in the four scenes we consider to be almost certainly of dances are males, while those in the doubtful scenes are females or indeterminate.

The scenes of the second large group under study are those that depict a couple. Following our interpretative schema, we would expect to see a synchrony of movement in them. However, we

FIGURE 1
Scenes we classify as dances with a single individual: a) Abrigo del Tío Garroso (Beltrán and Royo 2005, File 007); b) Cuevas del Engarbo I (Soria Lerma and López Payer 1999, fig. 3); c) Cueva de la Vieja (Cabré 1915, pl. XXII).

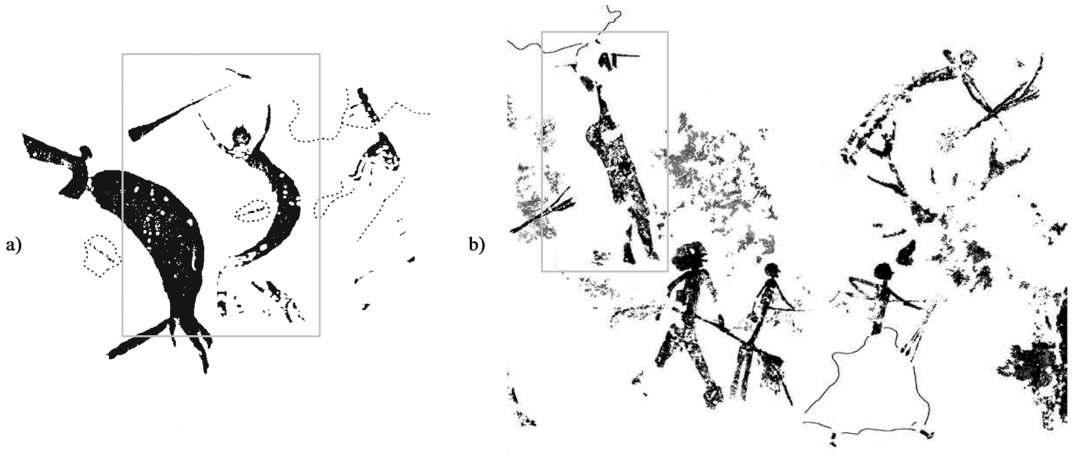

FIGURE 2
Ill-defined scenes that do not allow definitive classification as dances with a single individual: a) Abrigo de la Cañada de Marco (Beltrán 1998, fig. 7); b) Cova de Rossegadors or El Polvorín (Viñas *et al*. 2015, fig. 138).

FIGURE 3
Scenes we classify as dances of couples: a) Cingle de la Mola Remígia (López-Montalvo 2018b, fig. 11); b) Cova Remígia (Viñas and Martínez 2001, fig. 5); c) Abrigo de la Risca I (Mateo Saura 2003, fig. 3).

do not find this in three scenes and we have had thus to rule them out. They are those of the Abrigo de la Vacada (Fig. 5a), the Abrigo del Ciervo/Cinto de las Letras (Fig. 5c), and another scene different to the two described in the previous paragraph located in the Cueva de la Vieja (Fig. 5b) (Table 3). In the Abrigo de los Arenales (Fig. 4, Table 2), although the anthropomorphs appear to be involved in the same action, the lack of clarity regarding the characteristics of the lower extremities of the anthropomorph to the right hinders verification of the true level of coordination between the individuals, which leads us the classify this scene as doubtful. The remaining three scenes whose interpretation as dances we consider to be almost certainly correct are those of Cingle de la Mola Remígia, the nearby Cova Remígia and Abrigo de la Risca I (Fig. 3, Table 1). The dynamism of the posture exhibited by the dancers in these dance scenes is expressed through an

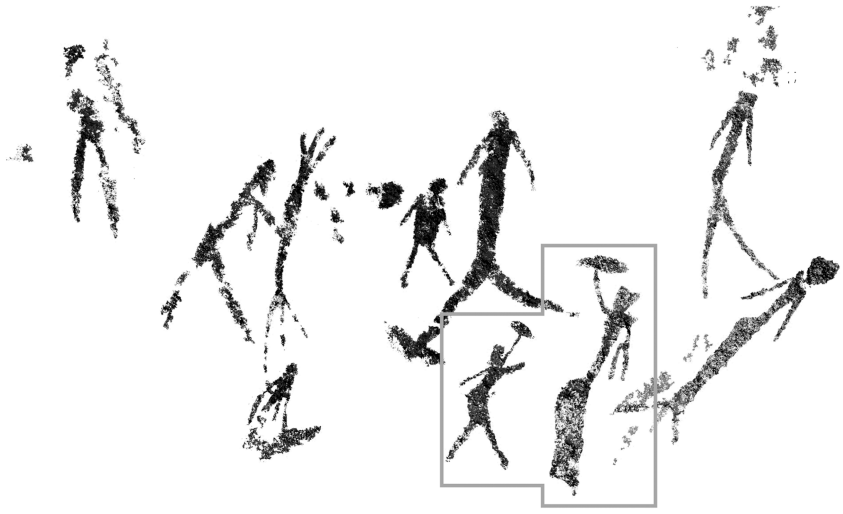

FIGURE 4
Ill-defined scenes that do not allow a definitive classification as dances of couples: Abrigo de los Arenales (Ruiz 2017, fig. 2.5).

inclined or curved torso and, although not always, open or flexed arms. With reference to the ornaments and objects depicted in them, in those couples made up of two male figures we observe a bull mask, a fawn headdress, bows, arrows, and adornments in the form of animal tails. In the couple performing the female dance in the Abrigo de la Risca I, we can identify hairstyles, attire and ornaments on the elbows. This gender difference is also insinuated in relation to the type of interaction between the individuals: with contact between the male couples and without contact in the female couple. Finally, the direction of movement does not appear to have been an important criterion for the artist who painted these couple dances.

Collective dance scenes constitute the third group of representations. They are the most numerous with as many as 15 proposed scenes. Of these, in keeping with the previously mentioned criteria, we only consider five to be reliable, while three others are classified as doubtful. The first image we find ourselves obliged to rule out is that of Roca dels Moros, in which only the two women on the far left of the group present a discrete synchronisation in their movements (which lack sufficient dynamism for them to be definitely classified as a possible scene of a dancing couple). Furthermore, recent revisions of the panel indicate that the anthropomorphs were painted during different phases (Viñas *et al*. 2017), making the image difficult to define as a real scene (Fig. 8c, Table 3). A lack of synchrony between the figures also leads us to rule out the representations from the Cueva del Chopo, the Barranco del Pajarero, the Cova del Civil, the Abrigo Grande de Minateda and the Abrigo de la Solana de las Covachas (Fig. 8a–b, e–g and Table 3). We also rule out as a dance scene the image painted in the Galería del Roure, in which we perceive clear indications of violence, represented by arrows stuck in the back of one individual and in the leg of another, making it likely that this is a scene of conflict (Rubio *et al*. 2019) (Fig. 8d and Table 3).

In our analysis of the criteria related to the anthropomorphs in the eight remaining scenes published as collective dances, we distinguish, as before, between the posture and the objects and ornamentation that accompany the individuals. With reference to the first, the observations are very similar to those made in the case of couples. Although there are cases in which the legs reveal a

FIGURE 5
Scenes we rule out as dances of couples: a) Abrigo de la Vacada (Bea 2006–08, fig. 2); b) Cueva de la Vieja (Jordá 1975, fig. 17); c) Abrigo del Ciervo (Jordá 1975, fig. 14).

certain dynamism, this aspect is mainly represented through an inclined and/or curved torso and open or flexed arms, with one or both projecting upwards or forwards. It is precisely the lack of dynamism in the posture of an individual in a second supposed dance scene in the Cova del Civil (Fig. 7a, Table 2) and another in the Cova de la Saltadora (Fig. 7b, Table 2) that leads us to consider these two scenes as doubtful. Moreover, the sparse movement in the scene in the Abrigo de Lucio or Gavidia make us doubt its supposed choreutic nature (Fig 7c, Table 2). As a consequence, there are only five collective scenes that show a high probability of involving dancing: those from the Barranco de los Grajos, the Abrigo del Voro, the Cueva de Muriecho L, the Abrigo de los Trepadores and the Cova Remígia (Fig. 6, Table 1). In all these the figures exhibit synchrony and appear to have been painted at the same time.

Continuing with our analysis of collective dance criteria in terms of objects and ornaments, although these cannot be seen in all five of the aforementioned scenes, where they are depicted we can once again observe a difference in gender terms. The men have headdresses, bows and arrows, adornments in the form of animal tails and ornamentation on the knees; whereas the women only exhibit attire. The collective dances represented are, without exception, of the linear type. As far as the gender of the participants is concerned, we see a predominance of males, with the exception of the scene from Barranco de los Grajos in which we can discern two groups, one made up of

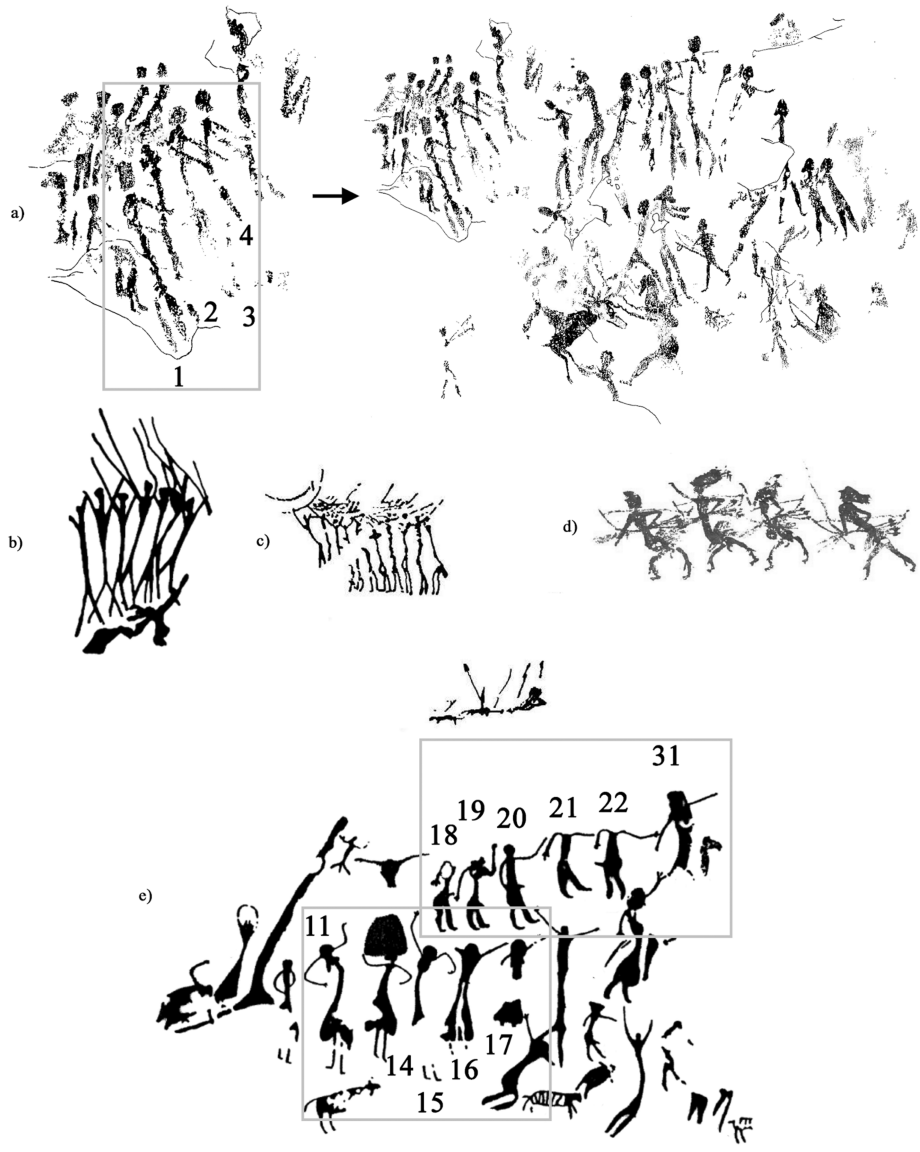

FIGURE 6
Scenes we classify as collective dances: a) Cueva de Muriecho L (Baldellou *et al*. 2000, fig. 9) (numbering added by us); b) Abrigo de los Trepadores (Ortego 1948, 3); c) Cova Remígia (Porcar 1945b, fig. 8); d) Abrigo de Voro (Martorell 2019, fig. II.22); e) Barranco de los Grajos I (Mateo Saura 2003, fig. 6). Only the numbering of figures of that author quoted in the text are included.

females and the other of males. At this site there is also a difference in the movement. While the women are dancing on the spot, the men appear to be moving to the right. The direction of movement does not appear to be a critical element, even in the case of the men depicted in the collective dances. For example, the movement shown in the male dance from the Abrigo del Voro

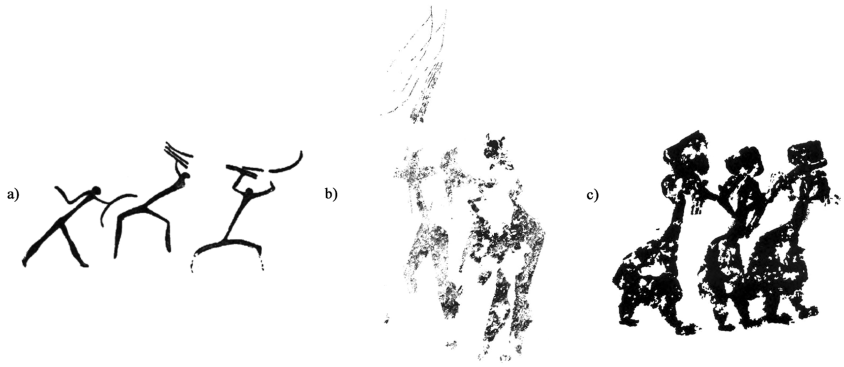

FIGURE 7
Ill-defined scenes that do not allow a definitive classification as collective dances: a) Cova del Civil (López-Montalvo 2007, fig. 7.19); b) Cova de la Saltadora (Domingo *et al*. 2007, fig. 40); c) Abrigo de Lucio or Gavidia (Alonso and Grimal 1999, fig. 4).

is to the left, while no horizontal displacement is depicted in the remaining three male collective dance scenes. Being in contact is more commonly encountered, although at the two sites mentioned in this paragraph there are some figures that are not so shown (Fig. 6, Table 1).

DISCUSSION

The above analysis of the scenes cited as of dance in the Levantine Art literature was undertaken to corroborate whether they presented the necessary attributes for such a classification, following the methodology set out above. As a result of our systematic review, we were able to conclude that only twelve scenes present characteristics that clearly fit the typical parameters of the activity in question. We identify four scenes with a single dancer, three with couples and five with collective dances. It is interesting to observe, in terms of their geographical distribution, that each of these categories is well distributed across the length and breadth of the Levantine Art geography, with no obvious spatial concentrations (Fig. 9). Both the doubtful representations and the excluded scenes are also well spread out geographically.

As for the two large groups of analytical criteria operating in the second section of this study – first to the individuals that make up the composition and second to the representation of the dance as a whole, we can make various observations deriving from the detailed analysis of the twelve postulated dance scenes. As far as the dancers are concerned, we emphasise two criteria: their posture and the objects or ornaments they are wearing/carrying. First, it is interesting to point out that, although they all exhibit dynamic postures, this dynamism is depicted more in the dance scenes with a single individual, in which the movement is expressed in all areas of the body, including the legs. On the other hand, except in the case of the Abrigo de Voro, in the couple or collective dance scenes, the postures that imply movement of the figures tend to be concentrated in the upper part of the body, being represented by the curvature or inclination of the torso and through coordinated arm movements. Furthermore, although the anthropomorphs in a single

FIGURE 8
Scenes we rule out as collective dances: a) Cova del Civil (Obermaier and Wernert 1919, fig 15); b) Cueva del Chopo (Picazo and Martínez Bea 2005, fig. 1); c) Roca dels Moros (Viñas *et al*. 2017, fig. 17); d) Galería del Roure (Hernández Pacheco 1917, fig 7); e) Abrigo del Pajarejo (Utrilla and Bea 2016, fig. 2); f) Abrigo Grande de Minateda (Jordá 1974, fig. 4b); g) Abrigo de la Solana de las Covachas (Alonso 1980, fig. 191).

composition are generally shown with the same type of posture, no clear recurrent postures have been identified in the different scenes. That said, there is a notable structural similarity in the positioning of the anthropo-zoomorphic dancers from the Cova Remígia and the Cingle de la Mola

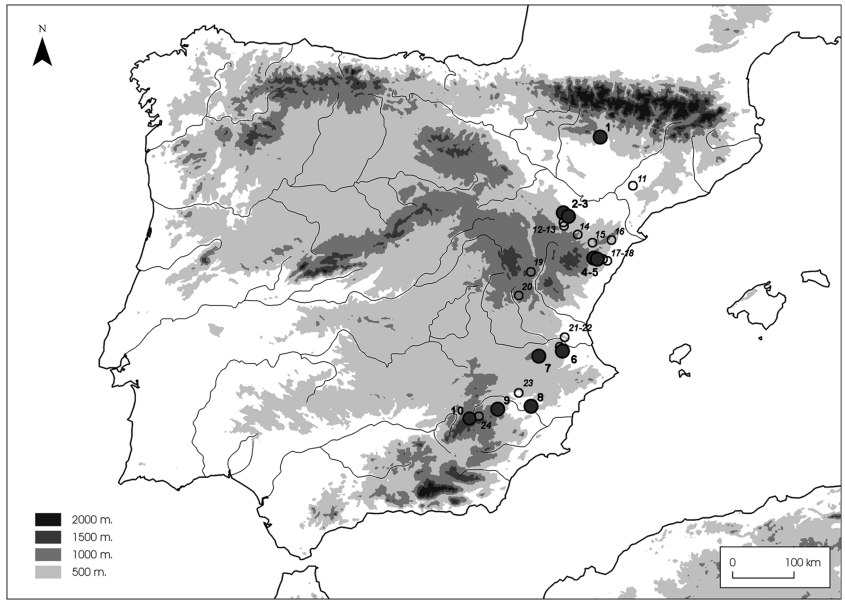

FIGURE 9

Geographical location of A/Levantine Art sites with dance scenes and others with compositions ruled out as such: A/Dance scenes (solid circles): 1) Cueva de Muriecho L (Colungo, Huesca); 2) Abrigo de los Trepadores (Alacón, Teruel); 3) Abrigo del Tío Garroso (Alacón, Teruel); 4) Cova Remígia (Ares del Maestrat, Castellón); 5) Cingle de la Mola Remígia (Ares del Maestrat, Castellón); 6) Abrigo de Voro (Quesa, Valencia); 7) Cueva de la Vieja (Alpera, Albacete); 8) Barranco de los Grajos I (Cieza, Murcia); 9) Abrigo de la Risca I (Moratalla, Murcia); 10) Cuevas del Engarbo I (Santiago de la Espada, Jaén). B/Shelters we consider unlikely to depict dance scenes or where we have rejected that interpretation (empty circles): 11) Roca dels Moros (Cogul, Lérida); 12) Abrigo de la Cañada de Marco (Alcaine, Teruel); 13) Cueva del Chopo (Obón, Teruel); 14) Abrigo de la Vacada (Castellote, Teruel); 15) Galería del Roure (Morella, Castellón); 16) Cova de Rossegadors or El Polvorín (La Pobla de Benifassà, Castellón); 17) Cova del Civil (Tírig, Castellón); 18) Cova de la Saltadora (Les Coves de Vinromà, Castellón); 19) Abrigo del Pajarejo (Albarracín, Teruel); 20) Abrigo de los Arenales (Villar del Humo, Cuenca); 21) Abrigo del Ciervo or Cinto de las Letras (Dos Aguas, Valencia); 22) Abrigo de Lucio or Gavidia (Bicorp, Valencia); 23) Abrigo Grande de Minateda (Hellín, Albacete); 24) Abrigo de la Solana de las Covachas (Nerpio, Albacete).

Remígia, two sites located next to each other in the Barranco de la Gasulla. Such a similarity can also be noted if we compare the collective dances from the Abrigo de los Trepadores and the Cova Remígia.

With respect to the use of ornamentation, headdresses and elbow, knee or waist adornments are frequent, whereas possible hairstyles and masks are less common. In terms of accompanying objects, there is an absolute predominance of bows and arrows, which the male figures employ in a way other than their primary function, while the females present no associated objects. Naturally, in Levantine Art the use of these adornments and objects is not limited to dance scenes, but their inclusion on many occasions in such contexts as possible ritual paraphernalia reinforces the symbolic nature of the activity.

Here, we must emphasize that in the case of 'archer figures', conventions operating in Levantine Art also distinguish between attitudes adopted in hunting and in dance. Many authors have argued that this rock art is the result of a common tradition culturally transmitted through generations (Alonso and Grimal 1999; López-Montalvo 2008; Domingo 2012; Viñas 2014),

perhaps denoting the existence of 'schools' responsible for teaching and maintaining a set of norms by which the paintings were produced (Porcar 1945c, 32). Thus, hunters are represented in a very standardized way, both in relation to body posture and norms of composition. The figures with bows and arrows that we classify as dancers do not fit the standard of representation generally seen in hunters, whereas, as demonstrated below, they exhibit the typical features of dance representations presented earlier.

The second group of analytical criteria focuses on the representation of the dance itself, taking into account the number of dancers, their gender, the interaction between them, and the direction of their movements. We have determined that the scenes can be made up of one, two or several individuals and that in the last circumstance we have only identified linear dances. This is in marked contrast to Garfinkel's (1998, 220; 2003, 44–7) observations at the other end of the Mediterranean, where the circular dance predominates. Solo dancers could either be a synecdochic representation of a group or just an individual dancing alone, perhaps a ritual specialist, a possibility mentioned above. The absence of ethnographic information directly or indirectly relating to the prehistoric populations we are studying make it impossible to verify which of these two cases we might be looking at. It should be specified, however, that in the Abrigo del Tío Garroso and the Cueva de la Vieja the possible dancers are sporting ostentatious headdresses and that the shape of the head of the individual in the Cuevas del Engarbo I is different to that of most of the anthropomorphs painted in that geographical area.

In terms of gender, interaction and direction of movement, our analysis has verified the existence of female and male dances, with a distinct predominance of the latter. Perhaps we should not find this unusual in the context of Levantine Art, in which explicitly male depictions are unmistakably more frequent. One interesting aspect we have observed that also coincides with the ethnologists' evaluations compiled by Garfinkel (2003, 72) is the fact that none of the dances in the analysed scenes are being performed by mixed gender groups. Furthermore, our study has also shown that in both the couple and collective dances, interaction between the anthropomorphs is very close. In the male dance from Barranco de los Grajos I the figures appear to be lifting one arm to touch the individual next to them, while in the scene from the Abrigo de los Trepadores the dancers are depicted so close together that their arms and legs overlap. In other places, such as the Abrigo de la Risca I, despite the proximity of the figures, there is no effective contact between them. Once again, we observe gender differentiation in play: while the male figures tend towards contact with each other, the female figures avoid it. There is also a variability, and involving gender, with respect to the direction of movement: all the female dancers are depicted without horizontal displacement, whilst the males may be likewise or moving towards the right or the left or even in opposite directions.

The chronological placement of the twelve dance scenes is uncertain. From a stylistic perspective, it seems clear that none are from the earliest periods of the Levantine artistic cycle, except the dancers from La Cueva de la Vieja. The vast majority appear to belong to the intermediate periods of the Levantine Art chrono-stylistic sequence and only the collective scenes from the Abrigo de los Trepadores and the Cova Remígia, with figures that can be interpreted as warriors, would have come from the very final stage of such a sequence, developed in the Neolithic. This relative dating would agree with the hypotheses proposed by the scholars who have studied the chronology of this art and who have highlighted an increase in bellicosity in the final period of this pictorial tradition (Domingo 2006; López-Montalvo 2018b).

CONCLUSIONS

In this article we have researched dance in the prehistory of the Iberian Peninsula based on the Levantine Art scenes that depict it. Such a synthesis has not been undertaken since Jordá's 1974 study, when only about a half of the current corpus was known. The methodology developed by Yosef Garfinkel since 1998, adapted to the specificities of our case study, has allowed us to examine the 27 scenes different authors have published as depicting dance scenes. Of them we have concluded that only twelve of them can be considered as such, while another six are doubtful. In terms of chronology, we have concluded that the depiction of dance scenes can mainly be dated to the intermediate period of the Levantine artistic tradition, with a few to its final moment. Those belonging to the final stage seem to reflect a marked context of conflict as shown by dances formed by groups of warriors.

Dance had an essentially educational, mnemonic function, complementing narratives regarding the society's structure and the spiritual world. The study of the twelve dance scenes we have accepted as such gives clues about the society that produced them. For example, the important role played by gender in the social organisation of the Levantine communities as seen in the dance depictions. Thus, we never find scenes in which men and women are dancing together, and in the only representation that could be considered as an exception, that at Barranco de los Grajos, male and female figures are in shown in separate groups. This difference between genders is also displayed in the higher number of men shown in the dances and in the greater number of accoutrements associated with men than women.

In contrast to other types of material culture, narrative rock art traditions have a huge potential to reveal cultural practices. In Spain, the high degree of naturalism of Levantine rock art, a style that dates perhaps to the Mesolithic and for certain to the Neolithic, represents a unique resource to study the society that painted them. Research into cultural practices that perforce leave few material vestiges in the archaeological record is difficult and a challenge, but also an important step for archaeology to take. Iconography is one way to approach this, although more rigorous methodologies than those applied in the past are needed, something we have attempted to achieve here. One such cultural practice, dance, can with greater understanding be seen to have been practised in the whole of prehistoric Mediterranean Spain, just as it was in other parts of the Mediterranean, in the Eastern part of Europe and the Near East.

Acknowledgements

This study has been carried out as part of the ERC Advanced Grant Artsoundscapes Project entitled 'The sound of special places: exploring rock art soundscapes and the sacred' (EC Grant Agreement 787842), the PI of which is Margarita Díaz-Andreu. We are grateful to Manuel Bea, Albert Rubio and Juan Francisco Ruiz for providing us access to good copies of various tracings included in this article and to Raquel Jiménez Pasalodos for her very useful suggestions on what is written about the anthropology of dance.

(NS-D-R, LF-M, TM)Departament of Història i Arqueologia, Facultat of Geografia i Història
Universitat de Barcelona
Carrer de Montalegre 6
Barcelona 08001
SPAIN
(Corresponding author NS-D-R) E-mail: neemias.sdarosa@gmail.com
ORCID: https://orcid.org/0000-0001-8665-1645

(MD-A)Departament of Història i Arqueologia, Facultat of Geografia i Història
Universitat de Barcelona
Carrer de Montalegre 6
Barcelona 08001
SPAIN
and
Institució Catalana de Recerca i Estudis Avançats (ICREA)
Pg. Lluís Companys 23
Barcelona 08010
SPAIN
ORCID: https://orcid.org/0000-0001-8800-146X

doi: 10.1111/ojoa.12228

REFERENCES

ALMAGRO, M. 1960: Nuevas pinturas rupestres con una danza fálica en Albarracín. In FREUND, G. (ed.), *Festschrift für Lothar Zotz. Steinzeitfragen der alten und neuen Welt* (Bonn), 457–65.

ALONSO, A. 1980: *El conjunto rupestre de Solana de las Covachas, Nerpio (Albacete)* (Albacete).

ALONSO, A. and GRIMAL, A. 1999: El Arte levantino: una manifestación pictórica del Epipaleolítico peninsular. In BELTRÁN, A., ALONSO, A., GRIMAL, A., BELTRÁN, A., APARICIO, J. and MOROTE, G. (eds.), *Cronología del arte rupestre levantino* (Valencia), 43–76.

APARICIO, J. 1986–87: Escena de danza en el Abrigo de Voro (Quesa, Valencia). *Bajo Aragón Prehistoria* VII-VIII, 369–71.

BALDELLOU, V., AYUSO, P., PAINAUD, A. and CALVO, M.J. 2000: Las pinturas rupestres de la partida de Muriecho (Colungo y Bárcabo, Huesca). *Bolskan* 17, 33–86.

BEA, M. 2006–08: Aproximación al estudio de la perspectiva en el arte levantino. *Bolskan* 23, 127–34.

BEA, M. 2018: Catálogo de yacimientos: pinturas. In RODANÉS, J.M. (ed.), *Arte Rupestre en Aragón* (Zaragoza), 103–361.

BELTRÁN, A. 1968: El arte rupestre levantino: Cronología y significación. *Caesaraugusta* 31–32, 7–43.

BELTRÁN, A. 1969: *La Cueva de los Grajos y sus pinturas rupestres, en Cieza (Murcia)* (Zaragoza).

BELTRÁN, A. 1985: Problemas del arte rupestre Levantino en la Provincia de Castellón. *Cuadernos de Prehistoria y Arqueología Castellonenses* 11, 111–40.

BELTRÁN, A. 1998: Sacralización de lugares y figuras en el arte rupestre levantino del río Martín. *BARA. Boletín de Arte Rupestre de Aragón* 1, 93–116.

BELTRÁN, A. and ROYO, J. 2005: *Las pinturas rupestres del Cerro Felio. Alacón (Teruel)* (Alacón).

BIESELE, M. 1978: Religion and folklore. In TOBIAS, P.V. (ed.), *The Bushmen: San Hunters and Herders of Southern Africa* (Cape Town and Pretoria), 162–72.

BREUIL, H. 1908: Les pintures quaternaries de la Roca del Cogul. *Butlletí del Centre Escursionista de Lleyda* 1, 10–13.

BUNDO, D. 2001: Social relationship embodied in singing and dancing performances among the Baka. *African Study Monographs* 26, 85–101.

BUTLER, J. 1993: *Bodies That Matter: On the Discursive Limits of Sex* (New York; London).

CABRÉ, J. 1915: *Arte rupestre en España: Regiones septentrional y oriental* (Madrid).

DOMINGO, I. 2006: La figura humana: paradigma de continuidad y cambio en el arte rupestre levantino. *Archivo de Prehistoria Levantina* 26, 161–92.

DOMINGO, I. 2012: Figura humana, técnicas y territorios: hacia una redefinición técnica del arte rupestre levantino – Human figures, techniques and territories: towards a technical redefinition of Levantine rock art. In GARCÍA, J.J., COLLADO, H. and NASH, G. (eds.), *The Levantine Question: Post-Palaeolithic Rock Art in the Iberian Peninsula* (Budapest), 117–44.

DOMINGO, I., LÓPEZ-MONTALVO, E., VILLAVERDE, V. and MARTÍNEZ VALLE, R. 2007: Los Abrigos VII, VIII y IX de Les Coves de La Saltadora. *Les Coves de Vinromà, Castelló* (Valencia).

FELD, S. 1982 *(2012): Sound and Sentiment: Birds, Weeping, Poetics, and Song in Kaluli Expression* (Durham).

GARCÍA DEL TORO, J.R. 1986–87: La danza femenina de la Risca (Moratalla, Murcia). *Bajo Aragón Prehistoria* 7–8, 123–7.

GARFINKEL, Y. 1998: Dancing and the beginning of art scenes in the early village communities of the Near East and Southeast Europe. *Cambridge Archaeological Journal* 8, 207–37.

GARFINKEL, Y. 2003: *Dancing at the Dawn of Agriculture* (Austin).

GARFINKEL, Y. 2010: Dance in prehistoric Europe. *Documenta Praehistorica* 37, 205–14.

GARFINKEL, Y. 2018: The evolution of human dance: courtship, rites of passage, trance, calendrical ceremonies and the professional dancer. *Cambridge Archaeological Journal* 28(2), 283–98.

GUENTHER, M. 2020: *Human-Animal Relationships in San and Hunter-Gatherer Cosmology* (Cham).

HALLEY, C. 2018: Communal performance and ritual practice in the ancestral Puebloan Era of the American Southwest. Ritual, play, and belief in evolution and early human societies. In RENFREW, C., MORLEY, I. and BOYD, M. (eds.), *Ritual, Play and Belief in Evolution and Early Human Societies* (Cambridge), 116–28.

HANNA, J.L. 1987: Dance and religion. In ELIADE, M. (ed.), *The Encyclopedia of Religion* (New York), 203–12.

HAYDEN, B. 2018: The Power of Ritual in Prehistory. *Secret Societies and Origins of Social Complexity* (Cambridge).

HERNÁNDEZ CARRIÓN, E. and GIL, F. 1998: Cuatro nuevas estaciones con arte rupestre en Jumilla. *Memorias de Arqueología* 13, 97–106.

HERNÁNDEZ PACHECO, E. 1917: Estudios de arte prehistórico I y II. *Revista de la Real Academia de Ciencias Exactas, Físicas y Naturales de Madrid XVI*, 62–84.

JOLLY, P. 2002: Therianthropes in San rock art. *The South African Archaeological Bulletin* 57, 85–103.

JORDÁ, F. 1966: Notas para una revisión de la cronología del Arte Rupestre Levantino. *Zephyrus* 28, 46–76.

JORDÁ, F. 1970–71: Los Tocados de Plumas en el Arte Rupestre Levantino. *Zephyrus* 21–22, 35–72.

JORDÁ, F. 1974: Las representaciones de danzas en el arte rupestre levantino. *III Congreso Nacional de Arqueología (Porto)*, 43–52.

JORDÁ, F. 1975: La sociedad en el arte rupestre levantino. *Papeles del Laboratorio de Arqueología de Valencia* 11, 159–84.

JORDÁN, J.F. 1995–96: Acéfalos, andróginos y chamanes. Sugerencias antropológicas en el arte rupestre levantino (Sureste de la península Ibérica). *Anales de Prehistoria y Arqueología* 11–12, 59–78.

JORDÁN, J.F. 2001–02: Los animales en el arte rupestre postpaleolítico de la Península Ibérica. Emblemas, alegorías, epifanías y ausencias. *Anales de Prehistoria y Arqueología* 16–17, 37–52.

JORDÁN, J.F. 2006a: Arte rupestre en Las Bojadillas (Nerpio, Albacete) y en el Campo de San Juan (Moratalla, Murcia) - mitos y ritos en el arte rupestre levantino. *Quaderns de Prehistòria i Arqueologia de Castelló* 25, 21–52.

JORDÁN, J.F. 2006b: Narraciones de mitos entre los cazadores postpaleolíticos de la Península Ibérica: cuerpos estilizados, escalas con miel, animales en trance de muerte y la Hija del Señor del Bosque. *Cuadernos de Arte Rupestre* 3, 79–124.

JORDÁN, J.F. 2020: La posible simbiosis de toro-ciervo en Minateda: ¿Una herencia iconográfica y mítica del magdaleniense? *Cuadernos de Arte Prehistórico* 9, 32–90.

KAEPPLER, A.L. 1992: Dance. In BAUMAN, R. (ed.), *Folklore, Cultural Performances, and Popular Entertainments. A Communications-centered Handbook* (New York), 196–203.

KATZ, R. 1982: *Boiling Energy: Community Healing among the Kalahari !Kung* (Cambridge, MA.).

LEWIS-WILLIAMS, J.D. 1999: Dance and representation. *Cambridge Archaeological Journal* 9, 281–3.

LEWIS-WILLIAMS, J.D. and CHALLIS, S. 2011: *Deciphering Ancient Minds. The Mystery of San Bushman Rock Art* (London).

LILLO, P.A. and LILLO, M. 1979: Las pinturas rupestres de La Risca, Rincón de Pedro Gurullo, en Campos de San Juan (Moratalla). *Murcia*, 15, 1–4.

LÓPEZ-MONTALVO, E. 2007: Análisis interno del Arte Levantino: la composición y el espacio a partir de la sistematización del núcleo Valltorta-Gassulla (PhD thesis, Univrsity of València).
LÓPEZ-MONTALVO, E., 2008: Cuestionando la improvisación: pautas de corrección y planteamiento espacial en los abrigos levantinos del núcleo Valltorta-Gasulla (Castellón, España). In HERNÁNDEZ, M., SOLER, J.A. and LÓPEZ, J.A. (eds.), *Actas del IV Congreso del Neolitico Peninsular*. Vol. II (Alicante), 31–6.
LÓPEZ-MONTALVO, E. 2018a: Hunting scenes in Spanish Levantine rock art: an unequivocal chrono-cultural marker of Epipalaeolithic and Mesolithic Iberian societies? *Quaternary International* 472, 205–20.
LÓPEZ-MONTALVO, E. 2018b: War and peace in Iberian prehistory: the chronology and interpretation of the depictions of violence in Levantine rock art. In DOLFINI, A., CRELLIN, R.J., HORN, C. and UCKELMANN, M. (eds.), *Prehistoric Warfare and Violence. Quantitative and Qualitative Approaches* (New York), 87–107.
MARSHALL, L. 1969: The medicine dance of the !Kung Bushmen. *Africa* 39, 347–81.
MARTORELL, X. 2019: Arte rupestre en el Macizo del Caroig (Valencia). El abrigo de Voro como paradigma (PhD thesis, University of Alicante).
MATEO SAURA, M.A. 1995–96: La vida cotidiana en el arte rupestre levantino. *Anales de Prehistoria y Arqueología de la Universidad de Murcia* 11–12, 79–90.
MATEO SAURA, M.A. 2003: Religiosidad Prehistórica. Reflexiones sobre la significación del arte rupestre levantino. *Zephyrus* 56, 247–68.
MATEO SAURA, M.A. 2013: Revisiones iconográficas en el arte rupestre levantino del Alto Segura. *Quaderns de Prehistòria i Arqueologia de Castelló* 31, 39–55.
MATEO SAURA, M.Á. 2019: El arte levantino: en la frontera entre la tradición paleolítica y la innovación neolítica. In VIÑAS, R. (ed.), *I Jornades Internacionals d'Art Rupestre de l'Arc Mediterrani de la Península Ibèrica* (Montblanc), 29–52.
MGUNI, S. 2015: *Termites of the Gods: San Cosmology in Southern African Rock Art* (Johannesburg).
MOLINOS, M.I. 1986–87: Representaciones de carácter bélico en el arte rupestre levantino. *Bajo Aragón, Prehistoria*, 7–8, 295–310.
MORLEY, I. 2005: The long-forgotten melody? Music in Mesolithic. In MILNER, N. and WOODMAN, P. (eds.), *Mesolithic Studies at the Beginning of the 21st Century* (Oxford), 212–24.
MORLEY, I. 2013: *The Prehistory of Music. The Evolutionary Origins and Archaeology of Human Musical Behaviours* (Oxford).
OBERMAIER, H. and WERNERT, P. 1919: *Las pinturas rupestres del Barranco de la Valltorta (Castellón)* (Madrid).
ORTEGO, T. 1948: Nuevas estaciones con arte rupestre aragonés: El Mortero y el Cerro Felío en el término de Alacón (Teruel). *Archivo Español de Arqueología* 21, 3–37.
PICAZO, J. and MARTÍNEZ BEA, M. 2005: Bumeranes y armas arrojadizas en el Arte Rupestre levantino. Las aportaciones de la Cueva del Chopo (Obón, Teruel). In HERNÁNDEZ, M.S. and SOLER, J.A. (eds.), *Arte rupestre en la España mediterránea* (Alicante), 283–95.
PIÑÓN, F. 1982: *Las pinturas rupestres de Albarracín (Teruel)* (Santander).
PORCAR, J.B. 1945a: El valor expresivo de las oblicuas en el arte rupestre del Maestrazgo. *Boletín de la Sociedad Castellonense de Cultura* 20, 7–16.
PORCAR, J.B. 1945b: Iconografía rupestre de la Gasulla y Valltorta. Danza de arqueros entre figuras humanas sacrificadas. *Boletín de la Sociedad Castellonense de Cultura* 21, 145–78.
PORCAR, J.B. 1945c: Interpretaciones sobre el arte rupestre. *Archivo de Prehistoria Levantina* 2, 31–7.
RIPOLL, E. 1961: *Los Abrigos pintados de los alrededores de Santolea (Teruel)* (Barcelona and New York).
RIPOLL, E. 1963: *Pinturas rupestres de la Gasulla (Castellón)* (Barcelona).
RIPOLL, E. 1968: Cuestiones en torno a la cronología del arte rupestre post-paleolítico en la Península Ibérica. In RIPOLL, E. (ed.), *Simposio Internacional del Arte Rupestre* (Barcelona), 165–92.
RUBIO, A., VIÑAS, R. and SANTOS DA ROSA, N. 2019: Representacions bèlliques de l'art llevantí. In VIÑAS, R. (ed.), *I Jornades Internacionals d'Art Rupestre de l'Arc Mediterrani de la Península Ibèrica* (Montblanc), 227–44.
RUIZ, J.F. 2017: *Arte Rupestre de la Sierra de las Cuerdas* (Ciudad Real).
SANTOS DA ROSA, N., FERNÁNDEZ, L., and DÍAZ-ANDREU, M. (2021): Las escenas de danza en el arte rupestre levantino del Bajo Aragón y Maestrazgo: Una síntesis crítica. *Zephyrus* 87, 15–31. https://doi.org/10.14201/zephyrus2021871531
SEEGER, A. 2003: Music and dance. In INGOLD, T. (ed.), *Companion Encyclopedia of Anthropology* (London), 686–705.

SORIA LERMA, M. and LÓPEZ PAYER, M.G. 1999: Los abrigos con arte levantino de las cuencas altas del Segura y del Guadalquivir. *Bolskan* 16, 151–75.

UTRILLA, P. and BEA, M. 2016: Ritual y simbolismo en el Barranco del Pajarejo. In AGUILERA, I., BELTRÁN, F., DUEÑAS, M.J., LOMBA, C. and PAZ, J.A. (eds.), *De las ánforas al museo. Estudios dedicados a Miguel Beltrán Lloris* (Zaragoza), 803–16.

VILASECA, S. 1947: *Las Pinturas rupestres de la Cueva del Polvorín (Puebla de Benifazá, provincia de Castellón)* (Madrid).

VILLAVERDE, V., MARTÍNEZ VALLE, R., GUILLEM, M.P., LÓPEZ-MONTALVO, E. and DOMINGO, I. 2012: ¿Qué entendemos por arte levantino? – What do we mean by Levantine rock art? In GARCÍA, J.J., COLLADO, H. and NASH, G. (eds.), *The Levantine Question: Post-Palaeolithic Rock Art in the Iberian Peninsula* (Budapest), 81–116.

VIÑAS, R. 1982: La Valltorta. *Arte rupestre del levante español* (Barcelona).

VIÑAS, R. 2014: Arte Rupestre Levantino: El testimonio gráfico de los últimos cazadores-recolectores de Europa Occidental. In SALA RAMOS, R. (ed.), *Los cazadores-recolectores del Pleistoceno y del Holoceno en Iberia y el Estrecho de Gibraltar* (Burgos), 681–95.

VIÑAS, R., ALBERT, R. and RUÍZ, J. 2016a: Referencias crono-culturales en torno al arte levantino: grabados, superposiciones y últimas dataciones 14CAMS. *ARPI. Arqueología y Prehistoria del Interior peninsular* 4, 95–117.

VIÑAS, R., ALBERT, R., RUÍZ, J., VAQUERO, M., VALVERDÚ, J., ROWE, M. and SANTOS DA ROSA, N. 2016b: Investigación cronoestratigráfica en el conjunto rupestre de la Sierra de la Pietat. Abrigos de Ermites I y IV (Ulldecona, Tarragona, Catalunya). *Cuadernos de Arte Prehistórico* 2, 70–85.

VIÑAS, R. and MARTÍNEZ, R. 2001: Imágenes antropo-zoomorfas del postpaleolítico castellonense. *Quaderns de Prehistòria i Arqueologia de Castelló* 22, 365–92.

VIÑAS, R., MOROTE, J.G. and RUBIO, A. 2015: *Arte Rupestre del Parque Valltorta-Gasulla y zona norte de Castellón* (Castelló).

VIÑAS, R., RUBIO, A., IANNICELLI, C. and FERNÁNDEZ, J. 2017: El mural de la Roca del Moros, Cogul (Lleida). Propuesta secuencial del conjunto rupestre. *Cuadernos de Arte Prehistórico* 3, 93–129.

WHITLEY, D.S. 2011: Rock art, religion, and ritual. In INSOLL, T. (ed.), *The Oxford Handbook of the Archaeology of Ritual and Religion* (Oxford), 307–27.

WINKELMAN, M.J. 2017: Shamanism and the brain. In CLEMENTS, N.K. (ed.), *Religion: Mental Religion* (New York), 355–72.

WULFF, H. 2015: Dance, Anthropology of. In WRIGHT, J.D. (ed.), *International Encyclopedia of the Social and Behavioral Sciences* (Amsterdam), 666–70.