

Prehistoric Cultural Characters of Bangkai Hill, Dukuhrejo Village, Mantewe District, Tanah Bumbu Regency, South Kalimantan Province

Bambang Sugiyanto^{1*}

¹ *Research Organization for Archaeology, Language, and Letters, National Research and Innovation Agency, Jakarta, Indonesia*

*Corresponding author. Email: bsugiyanto67@gmail.com

ABSTRACT

Bukit Bangkai is one of the small karst hills located in the Mantewe karst area, Tanah Bumbu Regency. The Mantewe karst area is a small part of the karst area in the southern part of the Meratus Mountains, starting from the Batu Sopang Regency (East Kalimantan), Balangan Regency, Kotabaru and Tanah Bumbu. The results of archaeological research conducted by the South Kalimantan Archaeological Center show that Bangkai Hill was the location of choice for prehistoric humans as a place of residence. Proof of occupancy includes; findings of various types of rock artifacts, remains of burning activities, food remains, burial remains, and cave wall painting. An interesting problem to pose is the character of the prehistoric culture that occurred on Bukit Bangkai in the past. The problem is tried to be expressed using descriptive research methods with an approach to observing the form and contextual findings to get answers to the problems above. Information on the prehistoric cultural character of Bukit Bangkai will increase knowledge of the local cultural history of South Kalimantan, especially in Tanah Bumbu Regency.

Keywords: *character, culture, prehistoric, Bukit Bangkai.*

1. INTRODUCTION

South Kalimantan has a large potential karst area. The karst area is located in almost all existing districts and is divided into 2 regions, namely the western and eastern parts of the Meratus Mountains. The western part of the karst area is located in Tabalong, Hulu Sungai Utara, Balangan, Hulu Sungai Tengah, Hulu Sungai Selatan, and Ta-pin districts, while the eastern part is located in Kotabaru and Tanah Bumbu districts. The results of research by the South Kalimantan Archaeology Center since 1994, provide an overview of the development of prehistoric culture in Bukit Batu Buli, Tabalong Regency. The prehistoric culture is reflected in the findings of the Babi Cave, Tengkorak Cave, and Cupu Cave (a small rock-shelter) sites. Babi cave was used as a place of prehistoric human habitation by developing middle stone tool-making technology (mesolithic) with simple hunting and gathering (Widianto, Simanjuntak, and Toha, 1997). Prehistoric humans who developed this culture found evidence in the form of burial remains at

the Tengkorak cave site. The carbon dating of these human remains is 5880 ± 60 BP (Widianto and Handini, 2003).



Figure 1. The condition of the Liang Bangkai 1 site can be seen from a far (Balai Arkeologi Kalimantan Selatan Dokumenta-tion, 2015)

This information encourages the de-velopment of prehistoric archaeologi-cal research, especially in other karst areas around the Meratus Mountains. Prehistoric cultural exploration re-search activities in karst areas in the Hulu Sungai Utara, Hulu Sungai Ten-gah, and Hulu Sungai Selatan regencies have not yet obtained encouraging results. The resources of the karst area in the area are quite good, but there is no indication of paying caves or niches that were used as prehistoric human dwellings in the past. Some of them have been used as secondary burial sites by later ethnic groups. It was not until 2008 when the South Kalimantan Archaeology Center began intensive visits and research in the Mantewe karst area in Tanah Bumbu Regency.

The results were very encouraging, the Mantewe karst area which is spread over several villages has a large poten-tial of prehistoric habitation sites. For example, Sugung Cave and Pembic-araan Cave (Mantewe village), Payung Cave (Bulurejo village), and Bangkai Cave (Dukuhrejo village). At that time, Sugung Cave and Bangkai Cave were already managed as local tourist attrac-tions that were visited quite a lot. The results of exploratory research at Sugung Cave show that the cave ter-race was used as a temporary dwelling place for prehistoric humans, with the main activities of making stone tools (types of blade flakes) and food pro-cessing with evidence of shell remains and animal bone fragments (Sugiyanto et al., 2015). While Payung Cave is a prehistoric habitation site located on a high karst hillside, its condition is dis-turbed (Fajari and Kusmartono, 2012; Fajari, 2013; 145-156).



Figure 2. Map of the Bangkai cave site in Tanah Bumbu Regency, South Kalimantan

Meanwhile, the Bangkai Cave in Dukuhrejo Village is a cave that has been managed by the local community

as a cave exploration tourist spot. Lo-cated on the slope of a small karst hill called Bangkai Hill. Bangkai Cave is located in the center of the hill with the direction facing the village settlement (South). The morphological condition of Bangkai Cave tends to be wet and humid, and there are no visible surface findings. Observations finally focused on the condition of the caves and other niches on Bangkai Hill.

The results were quite surprising, as it turned out that this small Bangkai Hill has around 25 cave and rock-shelter sites that have indications of archaeological occupancy (including the Bangkai Cave which is used as a tourist destination for cave tours) (Sugiyanto 2008). Starting in 2010, research activities focused on the sites of Bangkai Cave 1, Bangkai Rock-shelter 1, Bangkai Rock-shelter 11, Bangkai Rock-shelter 12, and Bangkai Cave 10 (Sugiyanto, 2010; Sugiyanto, et.al. 2014).

Specifically, research related to burial activities has been carried out since 2014 and 2015. The discovery of human skeletons at the Bangkai Cave 10 site became the main focus of activ-ities, including observing their shape and condition. Based on observations of the existing anatomy and bone mor-phology, it was confirmed that the hu-man skeleton was from the Mongoloid race group (human skeletons located at a depth of 35-40 cm), and a mixed group between the Mongoloid and Australomelanesoid races (for human skeletons located at a depth of 45-40 cm) (Noerwidi, Oktrivia, and Sugi-yanto, 2022).

The information above is the basis for the interpretation of prehistoric culture that developed in the caves and umbrella niches on Bangkai Hill during prehistoric times. Unfortunately, chro-nology tests carried out on bone sam-ples from human skeletons at the Bangkai Cave 10 site have not been successful (failed). The failure of the chronology test carried out in Waikato was caused by a reduction in collagen elements in the bone samples tested. The high humidity factor is stated to be the cause of damage to collagen in the bones.

2. PROBLEMS

The results of prehistoric archaeo-logical research on Bangkai Hill open new insights into knowledge related to prehistoric culture. Previously, in the South Kalimantan region, prehistoric stone artifacts were usually only found in open areas such as riverbanks or riverbeds, such as at the Awangbangkal site, for example. Stone tool discovery sites that can only provide information regarding the shape of the tool and perhaps the location of the source of the material or small remains of the manufacturing process. The discovery of the Babi Cave and Tengkorak Cave sites in Tabalong was the discovery of the first prehistoric residential site and prehistoric burial site in South Kali-mantan, especially in the karst area in the Meratus Mountains. The prehisto-ric culture here was developed by the Australomelanesoid human race group who adopted folded burial positions. They live in caves with the main activi-ties of hunting animals,

collecting (gathering) food around the cave, and making tools from stone and bone. What about the prehistoric culture that developed on Bangkai Hill in the Man-tewe region?

3. RESEARCH METHODS

The research method used in discussing the proposed problems is a descriptive research method with an approach to observing the shape and space of the findings produced during research activities. Observations based on the time of the incident are currently still waiting for the latest information regarding technical or chronological test technology that can be applied to the findings of human skeletons and several other samples. Observations of form or morphology will be strengthened by contextual observations of existing findings, so that it is hoped that they can explain the series of events that have occurred at these sites in the past.

4. DISCUSSION

Bangkai Hill, which is located in the karst area in the Dukuhrejo Village area, has very high potential for prehistoric residential sites. There are lots of caves and rock-shelter on the slopes, both directly on the ground and on steep and high slopes. The conditions of the caves and rock-shelter here very greatly. This condition is caused by the environment around Bangkai Hill which tends to be wet, and often floods during the rainy season. Some caves have long and wide hallways, but there are also long and narrow hallways. Likewise with the existing rock-shelter. The condition of caves and rock-shelter, especially those that are dry and tend to be bright, is the main choice as a temporary or permanent residence. The choice of residential location was also based on the fertility of the natural environment, related to the availability of clean water, sources of food, and sources of rock materials for making stone tools.



Figure 3. Findings of human skeletons in Liang Bangkai 10. (a) human skeleton lying on a straight back, (b) skull bone 20 cm below the first skeleton (South Kalimantan Archaeological Center Documentation 2015).



Physically, the condition of Bangkai Hill as a type of Tunggul karst hill has a good function of absorbing and storing rainwater. Several streams in Bangkai Hill can be used as water sources, and there is still a small lake in front of which the water almost never runs dry. This small lake is about 500 meters from Bangkai hill, and is known as Te-laga Hijau (Rowo Ijo - local Javanese language). Apart from water, this lake also provides andesite rock which is usually used as a hammer in the process of making stone tools. Meanwhile, the source of rock for potential tools can be searched for and found in the Selilau River, which is quite far from Bangkai Hill. As a source of food, the forests around Bangkai Hill provide various types of animals that can be hunted, such as partridges, monitor lizards, pigs, deer, mouse deer, and others. Freshwater mussels are often found in swamps and small rivers around Bangkai Hill (Sugiyanto 2008).

In general, the condition of the caves and rock-shelter on Bangkai Hill is very suitable for use as a residence or shelter for prehistoric humans. Another consideration is related to the condition of the cave and rock-shelter. Usually the conditions chosen are caves or rock-shelters where the ground is dry, bright due to the high intensity of sunlight, fresh and not damp which is closely related to air circulation, and relatively flat and quite wide. With these conditions, pre-historic humans could carry out the activities of making stone tools, making fire and cooking food, and other activities well and comfortably.

Caves and rock-shelters that were chosen as residences (houses) or as places to display graphic art (galleries) include Bangkai cave 1, Bangkai rock-shelter 1, Bangkai rock-shelter 11, Bangkai rock-shelter 12. Meanwhile, for ritual purposes related to burials, they used the Bangkai cave 10 site which is on the slopes of Bangkai Hill behind Bangkai cave 1 (Sugiyanto and Jatmiko, 2014).

Bangkai cave 1, which is a long and large niche, guarantees security and comfort for living in it. Water sources are available at a very close distance, food sources, whether in the form of game or other animals, live in the forests around Bangkai Hill and in several small rivers or swamps around it. Likewise, the availability of abundant sources of rock materials has

en-couraged the intensive process of tool making (workshops) at this site.



Figure 4. Several flake and blade from Bangkai Cave 1 sites (Personal documenta-tion)

This site has a dry and relatively flat land surface that is higher than the surrounding land. On the surface of the land are scattered thousands of rock fragments, shells and several animal bone fragments, which prove that this site was used by prehistoric humans in the past. The 5 excavation boxes that were opened showed that there was a fairly good spatial arrangement. The direction facing the Bangkai cave 1 site is to the south. Based on the findings, the western area was used as a place for making stone tools (workshop). The central area is used as a place to make fire and process food. Meanwhile, there are several small alcoves on the Bangkai cave 1 site that are used as places to express their feelings or the art of painting that they have mastered.



Figure 5. Human image motifs in Liang Bangkai 1, geometric image motifs in Ceruk Bangkai 1, poultry motifs in Ceruk Bangkai 11, and human image motifs in Ceruk Bangkai 12 (Personal documentation)

The place where prehistoric images in black are found exclusively is at the Bangkai rock-shelter 11 and Bangkai rock-shelter 12 sites. Bangkai rock-shelter 1, which is near Bangkai cave 1, only has a few images in black and is in a worn condition. Meanwhile, those at the Bangkai rock-shelter 11 and 12 sites still look good and clear. All the pictures are painted in black on the walls of the niche in quite large numbers. The results of the inventory carried out by BPCB East Kalimantan in 2018 showed that Bangkai rock-shelter 11 had 76 pictures, Bangkai rock-shelter 12 had 72 pictures (Inventory Team, 2018).

Almost all the images at the prehis-toric site on Bangkai Hill are depicted in black. Using black as the only choice certainly has certain back-grounds and considerations. To find out still requires new data and special further research. The colors chosen to express art and beauty in prehistoric times include; red, yellow, brown, black, and white. The general depiction that is often found on cave wall draw-ing sites is the color red, especially with depictions of handprints, humans, Binatang, boats, suns and other geo-metric motifs. The use of black in cave wall drawing culture in Indonesia gen-erally has a younger chronology com-pared to the

use of red. In the case of East Kalimantan, specifically at the complex of cave wall drawing sites in Sangkulirang-Mangkalihat, the use of black was found to overlap with the use of other colors, either as images themselves or as images related to other images (see figure 3).

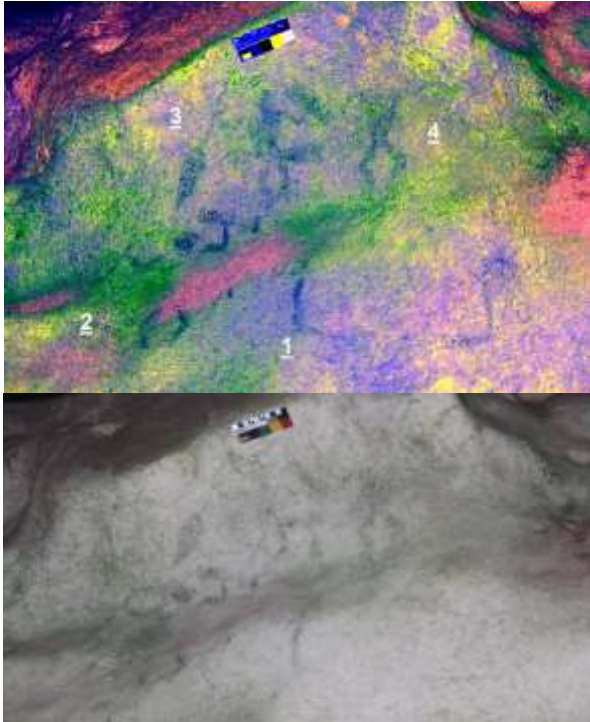


Figure 6. Image of a human in black from Kayu Ara Cave, Sangkulirang-Mangkalihat (BPCB East Kalimantan Documentation, 2016)

The percentage of use of black at the prehistoric site at Sangkulirang-Mangkalihat is very small compared to the use of red. The results of the latest chronology test, the red color used to describe animals at the Jeriji Saleh cave site shows an age of 40.88 ± 0.84 thousand years (Aubert et.al. 2018; 255). Meanwhile, the chronology of the many filled-in images found on handprint images in this site complex, all of which are made in black, is unknown. Apart from that, a special cave site was also found that had black drawings in Ara cave (Fage and Chazine, 2010). Different conditions were found in South Kalimantan, namely very few red images and predominantly black in the depictions at all prehistoric sites in Mantewe. How could something like this happen, and to answer it we need new data that is still stored in the Mantewe karst area.

All the sites on Bangkai Hill above are clearly evidence of cultural heritage developed by pre-historic humans. So who were prehistoric humans? The ultimate question in the study of pre-historic archeology or any other archeology is who created, developed, or used the culture? When? where do they come from? The answer to this question cannot always be found in an archaeological site alone, and to be able to answer it must go through a series of careful and continuous research activities. The site that can be used to answer the

question above is the Bangkai cave 10 site, which is a prehistoric human burial site equipped with a very worn "handprint" image. This image was only visible after the research team really carefully observed the cave walls and was assisted by quite sophisticated image analysis technology (Inventory Team, 2019) (see fig. 7).

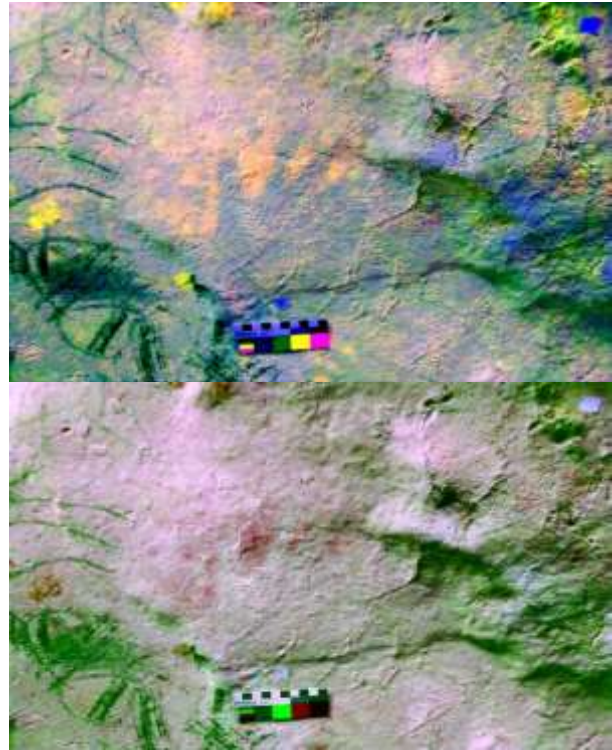


Figure 7. Handprint rock art at the Liang Bangkai 10 site (BPCB East Kalimantan 2019)

The finding of this handprint is the first handprint found, especially in the South Kalimantan region. And the presence of this handprint seems to be a certain sign that is closely related to the existing burial. The connection between cave wall drawings and burials is widely stated by archaeologists. Apart from the worn handprint, no other images were found on the cave walls at the Bangkai cave 10 site. The color of this handprint is also very worn, making it difficult to examine. Most likely using red like the positive hand-stencil image found in Kotabaru Regency (Fajari et.al., 2018).

The distribution of these prehistoric images in black covers two districts, namely Tanah Bumbu District and Kotabaru District. This can happen because the potential karst areas in these two regions are one geographical unit. This means that the karst area in the Mantewe District (Tanah Bumbu) is an inseparable part of the Kawas karst in the acid basin zone in the Tanah Bumbu and Kotabaru (Geopark Meratus) districts. The regional zone is included in the Meratus Geopark development plan which will be proposed to Unesco.

The discovery of human skeletons at the Bangkai cave 10 site is a very important discovery for efforts to reconstruct the history of the inhabitation of

Kalimantan Island, especially the outermost part of the Meratus Mountains. Osteobiographical analysis shows that Frame 1 is a woman aged between 35-40 years, with affinity characteristics of the Asiatic (Mongol-oid) population. The grave was lying on its back, primed and sprinkled with ochre. Meanwhile, Frame 2 is a man aged between 45-49 years, with characteristics of a mixed Mongoloid and Australo-Melanesoid population affinity who was also primarily buried on his back (Noerwidi et al. 2022; 104).

Based on the discussion above, it can be temporarily concluded that the prehistoric culture that developed in the caves on Bangkai Hill was at least supported by two human groups, the first being a mixed Mongoloid and Australomelanesoid population represented by Frame 2. Then the next pattern remains. Settled on Bangkai Hill is a Mongoloid population. These two populations developed the same stone tool technology, namely blade flake technology. During the settlement period, the Mongoloid population indicated the use of tools made from baked clay (pottery) and shells as jewelry.

5. CONCLUSION

The existence of Bangkai Hill on the map. The history of the development of prehistoric culture in South Kalimantan has a quite important position. The location of Bangkai Hill, which is in the southernmost part of the Meratus Mountains, provides a more complete and colorful insight into prehistoric human habitation. They inhabit caves around the slopes of Bangkai Hill with certain considerations and based on adequate environmental carrying capacity. In using these caves, they have special unique patterns. The Bangkai cave 1 site is used as a permanent residence with the main activity of making stone tools (per-workshop) with fire making and food processing activities in several parts of the cave terrace. Apart from that, they also used small niches in Bangkai cave 1 to depict "art" in black. The dominant use of black in the images depicted is a unique and distinctive phenomenon that is different from the same culture in Sangkulirang-Mangkalihat (East Kalimantan). More intensive drawing activities were carried out in the Bangkai rock-shelter 11 and 12 which are close to the Bangkai cave 10 burrow which is used as a burial site. The distinctive character of the choice of cave locations used for living and burial is clearly visible. The locations of Bangkai cave 1 and Bangkai cave 10 are facing in different directions (located on the slopes of hills with backs). Coincidentally, such a pattern can also be seen at Babi Cave (settlement site) and Tengkorak Cave (burial site) on Batu Buli Hill, Tabalong. This is very interesting to be developed more deeply in subsequent archaeological research.

ACKNOWLEDGMENTS

The author would like to thank all parties who have helped carry out this research, especially the Department

of Culture, Tourism and Youth Sports, Tanah Bumbu Regency which has granted research permission. Also to fellow researchers from the South Kalimantan Archaeological Center who have now joined BRIN, as well as to the people of Dukuhrejo Village who have provided great assistance and support to the author in completing this research.

REFERENCES

- [1] Aubert, M. P. Setiawan, A.A. Oktaviana, A. Brumm, P.H. Sulistyarto, E.W. Saptomo, B. Istiawan, T.A. Ma'rifat, V.N. Wahyuono, F.T. Atmoko, J.-X. Zhao, J. Huntley, P.S. C. Taçon, D.L. Howard, and H.E.A. Brand. "Paleolithic Cave Art in Borneo". *Nature* 564 (7735): 254-257 (2018). <https://doi.org/10.1038/s41586-018-0679-9>.
- [2] Fage, Luc-Henry and Jean-Michel Chazine. *Borneo, Memory of the Cave. Le-Kalimanthrope* (2010).
- [3] Fajari, Nia Marniati Etie. *Eksploitasi Sumberdaya Lingkungan dan Kelestarian Situs Arkeologi: Kasus Gua Payung yang Tera-baikan dan Hilang*. *Naditira Widya* 7 (2), 145-156 (2013).
- [4] Fajari, Nia Marniati dan Vida Per-vaya Kusmartono. *Excavation of Gua Payung on Southern karstic zone of Meratus Mountain, South Kalimantan Province, Indonesia*. Granucci Grant 2011 Final Report. Unpublish (2012).
- [5] Fajari, Nia Marniati Etie, Wasita, Eko Herwanto, Bambang Sugiyanto, Gregorius Dwi Kuswanta, Thomas Suryono, dan Mohammad Wisnu Wibisono. *Eksplorasi Arkeologi Kawasan Karst Pegunungan Meratus di Kabupaten Kotabaru, Kalimantan Selatan*. Laporan Teknis, Balai Arkeologi Kalimantan Selatan, Banjarbaru (2018).
- [6] Noerwidi, Sofwan, Ulce Oktrivia, dan Bambang Sugiyanto. *Osteobiografi Rangka Manusia Situs Liang Bangkai 10, Pegunungan Meratus, Kalimantan Selatan*. *Amerta* 40 (1), 87-107 (2022).
- [7] Sugiyanto, Bambang. *Penelitian Situs Prasejarah Liang Bangkai, Kecamatan Mantewe, Kabupaten Tanah Bumbu, Kalimantan Selatan*. Laporan Teknis, Balai Arkeologi Banjarmasin, Banjarbaru, unpublish (2010).
- [8] Sugiyanto, Bambang dan Jatmiko, Ekskavasi dan Eksplorasi Situs-Situs Hunian Prasejarah di Kawasan Mantewe, Kabupaten Tanah Bumbu, Kalimantan Selatan. *Berita Penelitian Arkeologi No.7*. Balai Arkeologi Banjarmasin, Banjarbaru, pp. 1-56 (2014).
- [9] Sugiyanto, Bambang, Yuka Nur-tanti, Restu Budi Sulistyono. *Penelitian Ekskavasi Situs Gua Sugung, Desa Mantewe, Kecamatan Mantewe, Kabupaten*

- Tanah Bum-bu, Laporan Teknis. Banjarbaru, unpublsh (2015).
- [10] Tim Delianiasi. Laporan Delineasi Wilayah Tabalar, Kalimantan Ti-mur. Laporan Teknis. Balai Pelestarian Cagar Budaya Kalimantan Timur. Unpublsh (2016).
- [11] Tim Inventarisasi. Eksplorasi Karst Mantewe Tahap I. Laporan Teknis, Balai Pelestarian Cagar Budaya Kalimantan Timur, Sa-marinda. unpublsh (2018).
- [12] Tim Inventarisasi, Eksplorasi Karst Mantewe Tahap II. Laporan Teknis, Balai Pelestarian Cagar Budaya Kalimantan Timur, Sa-marinda. unpublsh (2019).
- [13] Widiyanto, Harry, Truman Simanjuntak dan Budianto Toha. Ekskavasi Situs Gua Babi, Kabu-paten Tabalong, Provinsi Kaliman-tan Selatan. Berita Penelitian Arkeologi No. 1. Balai Arkeologi Banjarmasin, Banjarbaru (1997)
- [14] Widiyanto, Harry dan Retno Handini. Karakter Budaya Prase-jarah di Situs Gua Babi: Mekanisme Hunian Gua Prase-jarah Pasca Plestosen, Berita Penelitian Arkeologi No. 13, Balai Arkeologi Banjarmasin, Banjarba-ru (2003).

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

