Chapter 10. Pan-Gaean Flood myths

Gondwana myths - and beyond

by Michael Witzel¹

Abstract. Mythological compendia and indexes such as that by Stith Thompson create the impression that flood myths are rare in Africa and Australia. Erroneously, I too thought so in my short summary of Laurasian mythology (2001). A closer look at the worldwide distribution of flood myths tells differently. While they are fairly widespread in the Laurasian Area (Eurasia, Polynesia, the Americas), they are by no means absent from what I like to call the Gondwana belt (sub-Saharan Africa, New Guinea / Melanesia, Australia). The hundreds of recorded flood myths from both areas can be classified into a few major types, region per region. A comparison of the Australian and African versions indicates a strong overlap that goes back to the time of the exodus from Africa, some 60,000 years ago. The Eurasian-American versions are more narrowly confined to a few basic types that can be traced back to the emergence of Laurasian mythology. However, the Laurasian types clearly emerge from the earlier Gondwana prototype. In sum, the flood myth is an ancient inheritance of human mythology. It is part of a very old core of myths connected with the emergence of humans and their early, evil ways - surprisingly echoing the Mesopotamian and Biblical accounts in many respects. Whether this myth has taken shape among the bottleneck population along the shores of E.Africa or even before, in the mind of the African Eve must remain moot, just as the psychological reason for its invention and formulation, which is a topic to be investigated by the study of the human brain and its productions.

1. Overview

The flood myth is found widespread in Laurasian mythology² as well as in Gondwana areas. It is based on a relatively small number of well attested mythemes connected with a flood. This presentation is intended as a specimen of various investigations that

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² For the terminology, see Witzel 2001. *Gondwana* refers to the 'southern,' Out of Africa, mythologies (c. 65,000 years ago) and their subsequent local offshoots. *Laurasian* refers to Gondwana's 'northern' offshoot, marked by subsequent independent development, characterized by an intricate story line, of the Out of Africa mythologies. It is prevalent in Eurasia and the Americas as well as in the Austronesian speaking areas of S.E. Asia, Polynesia and Madagascar.

should be carried out for all major myths involving both Gondwana and Laurasian mythologies.³

In both areas, the flood myths have regardless of their details a distinct aspect of retribution or revenge. It does not matter whether the flood emerges from heaven, from the ocean, or just from a calabash (a mytheme found both inside and outside Gondwanaland).

In most Gondwana myths, the flood is retribution for or the result of a mistake. It frequently originates from rain or from a rain spell. Some divine creature is involved, either the rainbow snake (only in Australia) or a deity from heaven or from the mountains.

2. Gondwana Flood myths

2.1. Australia

To begin this investigation, we take a closer look at Australia since this region was settled early (c. 40-60,000 BCE) and thus offers the possibility of the relatively undisturbed preservation of old data. The idea of the rain spell is found in all of Australia. It is common in all three major cultural areas, the Southeast, the Northeast and the North. However, scholars suspect the latter two areas witnessed later intrusions of people, concepts and motifs from New Guinea during the last Ice Age. It is best therefore to keep these areas separate, at first. Moreover, while the flood as retribution or as the result of a mistake is very common, the involvement of the rainbow snake is found only in the north, while that of a creator deity is present only in the Southeast This is of importance since the latter type of deity is also found in Africa.

The Southeast

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The Southeast exhibits other phenomena of retention, such as some linguistic features⁵ and some indications of genetic peculiarities. It also has relative homogeneity in the etyma of tribal names, favoring those in *Gu*-. From the point of view of relig-

In this short review, the actual texts cannot be presented. For a large selection see http://www.talkorigins.org/faqs/flood-myths.html. (by Mark Isaak. Copyright © 1996-2002, revision of September 2, 2002; mirrored from http://home.earthlink.net/~misaak/floods.htm) and Thompson 1993: Motif A1010 sqq: The Flood. – For a review of the restricted materials available to Frazer as well as to Hastings (1909-1928, and an update until 1951) see Dundes 1988: 113-116. – Inspired by van Binsbergen (Beijing presentation 2006: 18, 2007; but his own view is somewhat different) one might be tempted to consider the spread of the motif in Africa as occasioned by diffusion from Austronesian Madagascar into E. Africa. This might even have reached W. Africa by maritime means. However, van Binsbergen's map of African occurrences overlaps only partially with that of Baumann 1936: 307sqq.; see further below.

⁴ Now confirmed by genetics, see Hudjashov *et al.* 2007.

⁵ On linguistic means to separate SE Australia from the rest, see Wurm 1979: 578 sqq.; Usher 2002.

ion, the Southeast is the only area in Australia that knows of a *Deus Otiosus*, a distant creator god that may also be assumed for Tasmania. An earlier occupation of the Southeast by Tasmanians may be the reason of these facts. The individual flood motifs involved are the follow(1) Flood covering all land, all people die, except some

- (2) Flood as retribution by creator for evil deeds of humans, emerging from ocean
- (3) Flood as retribution for specific evil deeds of (a) man, emerging from frog
- (4) Flood as solution for *overpopulation* (by animal clans), emerging from *rain spell* (All these are old features comparable with Laur. mythology),

The Northeast

The Northeast is generally regarded as a separate myth zone, with some influence from eastern New Guinea; it has an extension to the southern and western parts of Australia, again a feature with some linguistic backing (area of non-bound pronouns). The major myths involved are the following:

- (1) Flood covering all land, few survive on mountain
- (2) Flood from rain spell, all die
- (3) Flood from water bag, covering land, stopped by tree
- (4) Flood from misdeed / mistake of rainmaker, covering all land
- (5) Flood from spell, reaches canoe on top of mountain
- (6) Flood with boat carrying people
- (7) Flood from salt water in footsteps, as retribution
- (8) Flood from river kills half of mankind

The North(west)

The northern part of Australia, especially Arnhem Land and the Kimberleys, are regarded as the original home of the languages *different* from the large Pama-Nyungan language family that covers the rest of Australia. The north has a large number of densely packed languages, which is a typical characteristic of the original homeland of a language family. The area is also recognized for its prefixed bound pronouns which are only found here in this particular way, excluding even those parts of Australia that have other bound pronouns (*i.e.* the Southeast and much of the central and western areas).

The mythological facts tend to agree with the concept of the North and Northwest as a separate region, though some secondary western New Guinean influence during the past Glacial Maximum has been proposed and now verified by population genetics.⁷

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⁶ Cf. Usher 2002.

⁷ Hudjashov 2007.

As far as the flood myth is concerned, the following mythemes are typical. The Rainbow Serpent's involvement in the flood (mythemes 1-8) is a typical intrusive Papua feature of this area.

- (1) Flood from rainbow serpent's rain spell, as high as tall serpent
- (2) Flood from rainbow serpent's flooding, children drown
- (3) Flood from crying, people die, rainbow serpent eats them
- (4) Flood from rain rock, Rainbow Snake *urinates*, people drown⁸
- (5) Flood from crying / breaking rainbow snake's eggs, becomes rock
- (6) Flood from killing snake; woman drowns, is eaten by snake
- (7) Flood from killing rainbow snake; women drown, eaten by snake
- (8) Flood from tree falling into creek, all drown
- (9) Flood from felling tree, people drown
- (10) Flood from wounds, people drown to dream world
- (11) Flood from wounds / rain spell, and crying / tears; people washed away
- (12) Flood from honey bag, people turn into birds

In spite of some regional differences, nearly all of Australia is thus characterized by having flood myths that involve rain or rain spells, sometimes boats are also included so that one can flee to the mountains or other areas.

Another universal Australian motif is that of retribution for some sort of mistake or evil deed: by a creator deity in the Southeast myths, and by a rainbow snake in the Northwest. Some of these motifs, such as that the rainbow snake, will also be met with in other areas of Gondwanaland (and even in Laurasian India and South America).

Summing up, in all of Australia, we can discern the following main motifs:

- (1) Flood covering all land, few survive on mountain
- (2) Flood from water or honey bag, covering land, stopped by tree
- (3) Flood from misdeed / mistake of rainmaker, covering all land
- (4) Flood from salt water in footsteps, as retribution
- (5) Flood from (rainbow snake's) rain spell, all die
- (6) Flood from spell, escape by boat, to top of mountain
- (7) Rainbow serpent's flooding (from rain rock), children / people drown
- (8) Flood from crying, rainbow serpent eats people
- (9) Flood from killing the rainbow snake; woman is eaten by snake
- (10) Flood from tree falling / felled into creek, all drown
- (11) Flood from wounds and rain spell / crying tears, people drown, go to dream world.

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⁸ The same is also said of the S.E. Australian supreme deity Bundjel, see Dundes 1988: 130.

2.2. New Guinea and the other Melanesian islands

The vast island of New Guinea and the other Melanesian islands stretch in a wide arch all the way from Indonesia to Fiji and New Caledonia, from the equator to the Tropic of Capricorn. Unlike Australia, a vast area of hunter and gatherer cultures, Melanesia has preserved, largely until today, early food producing societies of a horticultural type. They are interesting as societies with mythologies of early food producing people that are quasi frozen in time (though one obviously must not forget that the Melanesians are modern humans, just like everybody else on the globe, with some 130,000 years of historical background). The type of flood myths found in Melanesia matches those in Australia to some extent. A simplified list includes these four major items:⁹

- (1) General flood covers all, except a mountain
- (2) Creator / other god destroys humans by flood
- (3) Flood as retribution for killing of culture hero; some people escape
- (4) Flood as retribution for other mistakes; escape on raft or canoe.

In this paper, some of the important variants are given in some detail. *E.g.* Atá (Aeta, in the central Philippines), are an isolated hunter gatherer tribe. They tell this myth:

Water covered the whole earth, and all the Atás drowned except two men and a woman who were carried far to sea. They would have perished, but a great eagle offered to carry them on its back to their homes. One man refused, but the other two people accepted and returned to Mapula. ¹⁰

2.3. Andaman Islands

The Andaman Islands have been largely isolated for very long periods in history, basically until the arrival of the British in mid-19th century. Their people speak isolate languages (connected by Greenberg to Papuan), and they exhibit a dominant, very old strain of DNA (NRY D), belonging to the early South Asian descendants of the move out of Africa. Interestingly, their mythology has retained some very ancient traits as well. Their flood myth, too, fits the pattern of the Papuan and Australian flood myths. It is also one of retribution for early human misdeeds, and an escape by boat.

Some time after their creation, men grew disobedient. In anger, Puluga, the Creator, sent a flood which covered the whole land, except perhaps Saddle Peak where Puluga himself resided. Of all creatures, the only survivors were two men and two women who had the fortune to be in a canoe when the flood came. The waters sank and they landed, but they found themselves in a sad plight. Puluga recreated birds and animals for their use, but the world was still damp and without fire...

⁹ *Cf.* also S. Thompson, 1932-6, Motif A 1010 Melanesian; Kamma 1978. For some additional Melanesian myths see Hans Kelsen in Dundes 1988: 130 sq.

¹⁰ Gaster 1952, 1958: 103-104.

¹¹ Thangaraj 2003; Endicott 2003.

¹² See now the discussion by Sreenathan, forthcoming in *Mother Tongue* 2010, no. 14.

After the people had warmed themselves [at the fire newly created by Puluga] and had leisure to reflect, they began to murmur against the Creator and even plotted to murder him. However, the Creator warned them against such rash action, explaining that men had brought the flood on themselves by their disobedience, and that another such offense would likewise be met with punishment. That was the last time the Creator spoke with men face to face. ¹³

The Biblical echoes of flood and covenant are striking in this isolated population. However, we must evaluate this flood myth against the emerging Andaman-Melanesian-Australian pattern as well as in the framework of the complicated evidence from sub-Saharan Africa.

2.4. Africa

While North Africa and the northern parts of East Africa clearly belong to the realm of Laurasian mythology, the vast lands south of the Sahara present a complicated picture. Anthropologists have long expressed the view that, like in Australia, there are several areas that have been influenced by the north, especially from the Sahel belt and from the northern part of the East African area. The data presented below will therefore be subdivided along these lines: (a) the core area, sub-Saharan Africa; (b) possible influence of the Sahel belt; and (c) northern East African influences.

In all areas, the flood myth¹⁵ is basically seen as an act of retribution. The flood often originates from rain (or a vessel); and it is caused by some heavenly deities or mountain spirits. We begin with the area that has most likely retained the most original features, the central core area stretching from West Africa to the Congo and South Africa.

Core area

The central sub-Saharan area exhibits some seven major mythemes. For practical reasons, the Pygmies are included here, though their mythology may go back much beyond any Bantu settlements in the area.

- (1) Flood and first humans: flood emerging from tree
- (2) Flood as retribution; from god's granddaughter
- (3) Flood from sun / moon fight, and first / later humans

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¹³ Gaster 1958: 104-105; another version (Beckwith 1987: 319) has a great storm killing many people and turning them into fishes and birds; the water rose above the trees; Minni Cara and Minni Kota took the fire in a cooking pot to a cave on top of a hill where it was kept until the flood receded.

¹⁴ *Cf.* now van Binsbergen 2006, and Beijing presentation (2006, handout p. 18). He explains all African occurrences by N-S diffusion (out of the Sahel and E. Africa). However, at least some of the occurrences in Frobenius' / van Binsbergen's (Handout 2006: 24) Atlantic / SW 'African core area' would point to an older, Gondwana layer in Africa.

¹⁵ The flood myth has been discussed at length by Baumann 1936: 307 sqq.; he criticizes the then (as today) prevailing opinion that the flood myth is hardly found in Africa (Doniger 1991). Instead, it is basically spread, in pockets, all over sub-Saharan Africa, with some variants. (For an English summary of Baumann's observations, see Hans Kelsen in Dundes 1988: 136-137). See also S. Thompson, Motif A1010: African; *cf.* n. 2224, 1189, 2219.

- (4) Flood from a vessel; retribution for killing
- (5) Flood as retribution: for sores
- (6) Flood: sores
- (7) Flood as retribution, by spell

West Africa

The areas in West Africa that are closer to the Sahel belt and that are prone to influences from the northern belt exhibit these major mythemes:

- (1) Flood from calabash
- (2) Flood from calabash, and stones creating rivers / flood
- (3) Flood as retribution by a god
- (4) Flood, from rain, as punishment; escape
- (5) Flood, of village, broken clay pot as marriage sign
- (6) Flood, friend of sun and moon, rise to sky

Eastern belt

As indicated, the eastern belt of Africa, stretching from Kenya to South Africa, has been subject to influences from the Nilotic and Omotic areas. It exhibits the following major mythemes of the flood myth:

- (1) Flood from pot on top of house
- (2) Flood, from rain, retribution for murder, boat; rainbow
- (3) Flood from rain, retribution by spirit on mountain
- (4) Lake created by mountain spirits

In sum, the sub-Saharan African evidence suggests the following major mythemes within flood myth traditions:

- (1) Flood and first humans: flood emerging from tree; no retribution, (Pygmy)
- (2) Flood (from rain) as retribution; by a god, god's granddaughter or mountain spirits
- (3) Flood from sun / moon fight, first and later humans
- (4) Flood from vessel or calabash; retribution for killing
- (5) Flood as retribution and sores; or by spell

It is remarkable that a specific item such as that of the connection with wounds¹⁶ reappears in Australia (see above,) but not in Laurasian mythology.

Finally, through a general comparison of Gondwana myths, involving the African, Andaman, Melanesian and Australian flood myths, we arrive at the flowing simplified scheme that seems older than any Christian or (Islamic) influence in the regions concerned.

¹⁶ W. van Binsbergen suggested to me during the Ravenstein conference that this may refer to menstruation.

- (1) General flood covers all except a mountain (Pygmy, Mel., Aus.)
- (2) Flood as retribution by god(s) / spirits, destruction of humans, (escape by boat) (Mel., Andaman, Afr.)
 - (2a) Flood as retribution for killing of culture hero / rainbow snake (Mel., Aus.)
 - (2b) Flood by mistake or spell of rainmaker / rainbow snake, escape by boat to mountain; some eaten by snake (Aus. only)¹⁷
 - (2c) Flood as retribution for other mistakes (Mel., Aus.)
- (3) Flood from vessel, calabash, water / honey bag (Aus., Afr.) Laur.: rain
- (4) Flood caused by someone's wounds or sores (Aus., Afr.)

3. Laurasian Flood myths

The Laurasian versions of the flood myth are much better known; they have been extensively been collected by Stith Thompson; here follows a brief overview from his data.

Stith Thompson (1993): Motif A1010 The Flood. (Presented here in abbreviated form).

A1011.1. Flood partially caused by breaking forth of springs. Irish, India, *cf.* A941.6. Breaking forth of springs partial cause of flood. A1011.2. Flood caused by rising of river. S. A. Indian (Chiriguano).

Flood from fluids of the body:

A1012.1. Flood from tears. N. A. Indian; Polynesian: Rain from tears. D1567.2. Saint's tears produce fountain. A1012.1.1. Flood from Adam's tears of repentance. A1012.1.2. Flood from tears of grieving lover. N. Am. Indian (N'tlaka'panaq); S. Am. Indian (Chaco).

A1012.2. Flood from urine. Koryak, Eskimo, Athapascan Indians.

A1012.3. Flood from blood. American Indian (Mono). A1012.3.1. Flood from slain giant's blood. Iceland.

A1013. Flood from belly. It flows from pierced belly of monster. Indonesian, North and South American Indian (Toba).

A1013.1. Vomiting of a whale causes flood. N. Am. Indian (Déné).

Other causes

A1015. Flood caused by gods or other superior beings. (*Cf.* A1018.) Babylonian, Marquesas, S. Am. Indian (Tupinamba, Yuracare)...

A1015.3. Flood caused by deity stamping on floor of heavens. Maori.

A1016. Pseudo-scientific explanations of the flood. A1016.3. Flood caused by melting of ice after great spell of cold. N. Am. Indian (Déné), S. Am. Indian (Gusinde) A1016.6. Moon falls into sea and causes flood by overflowing. S. Am. Indian (Fuegians) A1017.2. Flood caused by prayer. Maori. A1017.3. Flood caused by curse. S. Am. Indian (Chiriguano).

¹⁷ Cf. the appearance of the rainbow in Biblical myth, after the flood.

A1018. Flood as punishment. Old Testament, Spanish. Cole: Australian; (cf. B 91.6. Serpent causes flood). Jewish, Greek, Babylonian, India, Buddhist myth, Society Is., Hawaiian, Maori, Marquesas; N. Am. Indian (Calif., Pomo, Wishosk, Apache, Hopi, Zuñi; Caribbean (Cuan); S. Am. Indian (Chaco, Cubeo, Toba, Inca). – See also references to 'Sintflut' in A1010 and A1015, where in nearly all cases the gods produce the flood as punishment. (Cf. Q200. Deeds punished. Q552.19.6. Flood as punishment for murder). – A1018.1. Flood as punishment for breaking tabu. Fiji, Tahiti, Maori, Andaman; S. Am. Indian (Toba, Mataco, Lengua). A1018.2. Flood as punishment for incest. American Indian (Namba); cf. Incest punished. T410.

A1018.3. Flood brought as revenge for injury. Tuamotu; N. Am. Indian (Carrier, Ts'etsaut, North Pacific Tribes, Haida, Kwakiutl, Mono, Shasta, Pima, Ojibwa, Menomini); Central and S. Am. Indian (Cahita, Bororo, Tupinamba). A1019. Deluge: miscellaneous.

A1019.3. Flood because earth has become too thickly populated. India [and also in Mesopotamia]. A1019.4. Flood puts out world-fire. (*Cf.* A1030.) S. Am. Indian (Tupinamba, Tucuna, Nimuendajú, Cubeo).

A1020. Escape from deluge. A1021. Deluge: escape in boat (ark) Irish, Icelandic, Spanish, Greek, Hebrew: Genesis, ch. 6, 7, 8; Jewish, Babylonian, Hindu / India / Buddhist myth, Chinese, Siberian, Pelew Is. (Micronesia), Maori; Eskimo, American Indian (Carrier, Chipewyan, Coos, Kathlamet, Nootka, Chimariko, Salishan, Crow, Cochiti, White Mountain Apache, Ojibwa, Choctaw, Shawnee, Natchez, Aztec, Arawak, Carib, Mbaya, Mura, Nimuendajú, Taulipang, Camara ('selections only'); cf. Z356. Unique survivor... A1021.0.2. Escape from deluge in wooden cask (drum). Chinese, S.A. Indian (Guaporé). A1021.0.3. Deluge: escape in gourd. India. 1021.0.4. Deluge: escape on floating tree. Korean. A1021.0.5. Deluge: escape on floating building. American Indian (Tlingit, Cahita).

A1021.1. Pairs of animals in ark. Seed of all beings put into ark to escape destruction.— See references to 'Sintflutsage' in A1010; Irish, Hebrew: Genesis 6:19, Babylonian, Hindu; Aztec.

A1021.2. Bird scouts sent out from ark. Irish, Hebrew, Babylonian...

A1022. Escape from deluge on mountain. Greek, Hebrew, Hindu / India, Philippines, Borneo, West Caroline Is.; Polynesian, Cook Group, Hawaii; N. Am. Indian (Bella-Bella, Tahltan, Luiseño, Shasta, Blackfoot, Chiricahua Apache, Zuñi); S. Am. Indian (Araucanian, Inca, Yunca, (Peru), Caingang, Amazon ('only a selection of references for North and South America.'). Australian.

A1023. Escape from deluge on tree. India; American Indian (Paiute, Plains Cree, Fox, Catawba, Ackawoi, Caingang, Guayaki, Maina); *cf.* R311. Tree refuge. A1024. Escape from deluge in cave. Andaman Is.; American Indian (Cheyenne, Arawak, Antis, Yuracare). A1025. Escape from deluge on island. Society Is. A1026. Escape from deluge on foot. Chinese. A1027. Rescue from deluge by fish. Hindu, *cf.* B551. Fish carries man across water.

A1028. Bringing deluge to end. A1028.1. Trickster sticks spear in ground and leads water to sea, ending deluge. S. Am. Indian (Chaco). [This is similar to the widespread Himalayan myth of a great flood in a valley or from a pond ended by a deity cutting the mountains to let the flood escape (Kashmir, Kashgar, Kathmandu, Eastern Nepal). A1028.2. Birds fill sea with dirt and overcome flood. S. Am. Indian (Caingang).

A1029. Miscellaneous... A1029.3. Escape from deluge in pot or jar. S. Am. Indian (Chiriguano, Guarayu). A1029.4. Flood: refuge in huge gourds with seven rooms in each. India. A 1029.5. Escape from deluge in box or basket. American Indian (Thompson River, Apache, Guarayu, Cubeo, Chaco. A1029.6. Survivors of flood establish homes. S. Am. Indian

¹⁸ See Allen 1997.

(Chiriguano).

Other world catastrophes: Fire, winter, etc.:

A1030. World-fire. A conflagration destroys the earth. Iceland, Greek, Lithuanian, Jewish, Babylonian, Siberian, Hindu / Indian, Chinese; Maori; N. Am. Indian, S. Am. Indian.

A1035. Quenching the world-fire. A1035.1. Rain invoked to destroy world-fire. A1040. Continuous winter destroys the race. A1046. Continuous world-eclipse. India; S. Am. Indian.

The motif of actual descent from heaven or from a high mountain is often connected with that of a primordial flood that wiped out all early humans.¹⁹ It is best known from the Biblical story of Noah's flood and from the ancient Mesopotamian Gilgamesh epic (Utanapishtim's tale, tablet XI),²⁰ the oldest attested written version in world literature.²¹ The early Indian version telling of the flood of Manu²² is found in a later Vedic text, the Śatapatha Brāhmaṇa only; however, is of the same time period as that of the Hebrew Bible.

All these versions agree in that a great flood covered all lands and only a few humans survived on a boat. When the flood receded it got stuck on a certain mountain: Ararat in the Caucasus, Mt. Nišir in eastern Mesopotamia, the 'northern mountains (Himalaya) in the Śatapatha Brāhmaṇa or later, as Naubandhana mountain 'tying up the boat,' in S. Kashmir. The survivors then stepped down from the mountain to repopulate the earth. This congruence of tales has led to widespread speculation, which are usually based on limited comparisons only. However, from the point of view of Laurasian mythology, these three tales would merely constitute other examples derived from the secondary Laurasian sub-region of the Greater Near East.

The Biblical version stresses the flood as punishment for an evil deed. Likewise, the Mesopotamian gods grew restless because of the constant noise of the bustling humans and decided to kill them.²³ The element of retribution or revenge²⁴ by a deity (or outstanding human such as a shaman-like figure) is indeed a frequent and outstanding feature of this myth wherever it is found. It may be best summarized by a

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¹⁹ The flood is just one of the several ways that the early earth and (proto-)humans have been wiped out several times (Meso-America), or will be wiped out in the future: by water, ice, fire, wind, devouring, etc. See the discussions in Dundes 1988; Day 1984: 400 sqq.; Yamada 2003 (especially on S. China and S.E. Asia).

²⁰ Itself adapted from the myth of Atrahasis (or Ziusudra), a Sumerian text translated from the Akkadian, see Kovacs 1985: 97 n. 1.

²¹ Heidel 1963, Gardner and Maier 1984, Kovacs 1985, Dalley 1989, etc.— Detailed version by Pettinato 1992, with the first complete translation of new materials, discovered in a royal tomb in 1999 by the Italian archaeological mission at Me-Turan, between Djala and Tigri. It has a new end of the Gilgamesh saga, of c. 1700 BCE, much older than the Ninive text. Pettinato has been publishing on the new texts since 2001.

²² For recent work on the flood myth, see Gonda 1978; Etter 1989; Magnone 1999: 125-136, 2000: 233-244

²³ Atrahasis II SBV [Standard Babylonian Version] iv, Dalley 1989: 23 sqq.

²⁴ For the Pan-Gaean topic of retribution and revenge, cf. Smith 1996: 35, 151 sqg.

Polynesian version, that of the Maori:²⁵

Puta preached the good doctrines to the wicked tribes in the name of Tane. Mataaho or Matheo was the most obstinate unbeliever of all the skeptical race. Puta prayed to Rangi (heaven) to upset the earth; then the earth turned upside down²⁶ and all the people perished in the deluge. Hence the flood is called 'overturning of Mataaho.'

The Marquesas version of the myth is closest to that of the Bible.²⁷ However, there are various versions of the myth with other Polynesians, and even in another version with the Maori, such as the following contemporary one:

Up to the present time Ranginui, the Sky, has remained separate from his wife, the Earth. But their love has never diminished...

At length, lest all the land be lost, a party of the other children of Ranginui and Papatuanuku resolved to turn their mother over, so that she and Ranginui should not be always seeing one another's grief and grieving more. This was done and is called *Te Hurihanga a Mataaho...*

When Papatuanuku was turned over by Mataaho, Ruaumoko was still at her breast, and he remained there and was carried to the world below. To keep him warm there he was given fire. He is the guardian of earthquakes, and the rumblings that disturb this land are made by him as he walks about.²⁸

The motif of a great flood is found all over the Laurasian area,²⁹ according to S. Thompson's Motif Index (A 1010),³⁰ from Ireland and Old Egypt to Siberia, China,³¹ India,³² Indo-China,³³ Indonesia, Polynesia and to the Americas. It is found

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²⁵ Tregear 1891: 558, 222. Another Polynesian myth has Tane jumping on heaven until it cracks. For the Hawai'ian version see Beckwith 1987: 315. In some versions, Christian influence is seen. For other Oceanic versions pp. 315 sqq.

²⁶ As it does, according to Vedic myth, every night; see Kuiper 1983, Witzel 1995-97.

²⁷ Tregear 1891: 560.

²⁸ The myth continues: 'This is the narrative about the generations of the ancestors of men from the beginning of the Po, and therefore we, the people of this land, carefully preserved these traditions of old times as a thing to be taught to the generations that come after us. So we repeat them in our *karakia* [invocation] and whenever we relate the deeds of the ancestors from whom each *iwi* ['bone'] and family is descended, and on other similar occasions.'

⁽http://www.maori.org.nz/korero/?d=page&pid=sp40&parent=36).

²⁹ Though in some areas with its 'reverse' version, that of a flooding caused by a great lake or pond, that laid the Kathmandu and Kashmir valley dry but briefly flooded nearby areas (See Allen 1997).

³⁰ Thompson 1993, Motif: A1010. Deluge. Inundation of whole world or section. Irish, Greek, Egyptian, Persian, Hindu / India, Chinese, Korean, Indo-Chinese, Indonesian, Philippine (Tinguian), Polynesian (Samoan, Hawaii), Siberian, Eskimo, N.A. Indian (Pima, Walapai, Sia, Hopi, Sinkyone, Calif. Indian, Maya, Mixtec), S. Am. Indian (Carib, Chibcha, Amazon tribes, Jivaro, Yugua, Cubeo, Aymara, Zaparoans, Pebans, Bacairi, Nambicuara, Guaporé, Caingang, Eastern Brazil).

³¹ See Yang and An 2005: 74. Mathieu 1989, myths no. 39-41. – A new creation of humans occurs through the marriage of a brother and sister after all humans had been wiped out by a disaster (flood, fire, snow, etc.); this myth is found with the Han and some 40 other ethnic groups. In some versions, the first child is abnormal due to a mistake in the 'marriage' procedure (as in Japan), such as a spherically shaped child, a gourd or stone, all of which has echoes in Indo-Iranian and Japanese myth; see Yang and An 2005: 68, 73 sq.

³² In a different version found with the Mundas, see Ponette 1968: 99: a rain of fire sent as punishment

among the Inuit, North, Central and South American tribes, including those of the Amazon and the now exterminated Neolithic Selk'nam hunter and gatherers of Tierra del Fuego. The latter have transmitted, along with the now exterminated Yamana tribe, the myth about a flood³⁴ that covered all the land, except for five mountains (just as in a Navajo tale, which ironically comes from a different language group, the non-Amerindian Na-Dene). It is an example of *ultima Thule* tales that are not likely to have been transmitted by diffusion from the Maya or Inca civilizations.³⁵

Once, when spring was approaching, an Ibis was seen flying over someone's hut and people shouted 'the Ibises are flying. Spring is here.' ... However, the Ibis herself ... took offense at all that shouting, and, in revenge, let it snow so hard and long that the whole earth was blanketed. The sun came out, the snow melted, and the earth was flooded. People hurried to their canoes, but only the very lucky reached one or another of the five mountain peaks that remained above the waters. When the flood subsided, these came down, rebuilt their huts along the shore, and ever since that time, women have been ruled by men.' ³⁶

In short, the following main motifs are found in the Laurasian area:

- (1) General flood covers all except a mountain
- (2) Flood caused by gods or superior beings: escape in a gourd, boat, pot, ark; on a tree, on a mountain
 - (2a) Flood as punishment, as revenge for injury
- (3) Flood by breaking forth of springs, of vault of heaven, rain, etc.
- (4) Flood from fluids of the body (tears, urine, blood).

Based on incomplete evidence, I have previously claimed that the myth was missing in Africa and Australia.³⁷ The handbooks provide almost exclusively Laurasian entries: Stith Thompson's *Motif Index* (A 1010); Frazer's large collection of flood myths seemed to indicate that it is absent in Africa and China,³⁸ (and Dundes – like most mythologists since Frazer – maintains the same,³⁹ quoting one flood myth from the Sahel belt of N. Cameroon and one from Australia). Yet, it can be shown that the few African flood stories known to me then cannot simply be explained, as I thought then, as intrusions from the Sahel belt or from northern sections of the 'East

by the supreme god Simbonga.

³³ See Yamada 2003, where the gourd motif is fairly prominent. The paper contains a careful discussion of various mythemes and subtypes of the flood myth in this area: 'brother and sister survive the flood,' classified as 1. Primordial flood, 2. Cosmic antagonists, 3. Cosmic flood, 4. Flood caused by 'sin'. The gourd appears in versions 2 and 4.

³⁴ Gusinde 1931= Campbell I 2: 259.

³⁵ Cf. also the Inca tale reported at Barber & Barber 2004: 202sq. = Sullivan 1996: 16. It dates back (in two versions) to the 16th century. See further Bierhorst 1988: for Guyana 79 sq; for the Gran Chaco 142 sq., for Tierra del Fuego 164 sq.

³⁶ Gusinde 1931, Wilbert 1977: 25-30.

³⁷ Witzel 2001. *Cf.* also Yamada 2003: 1.

³⁸ See Dundes 1988: 115, Yamada 2003.

³⁹ Dundes 1988: 2.

African Highway' – that is, the Savanna and Steppe belt stretching from Uganda / Kenya to S. Africa. Nor are the Australian flood myths to be derived from missionary tales, such as the Aranda myth in Dundes' book clearly is, at least in its current form that has included Noah's ark.⁴⁰

4. A comparison of Gondwana and Laurasian Flood myths

Table 10.1. A comparison of Gondwana and Laurasian Flood myths

Gondwana flood myths	Laurasian flood myths
(1) General flood covers all except a mountain	Near East, India, Siberia, Taiwan, S.E. Asia,
Gondwana myths: Pygmy, Melanesia, Australia.	Americas, etc.
(2) Flood as retribution by god(s) / spirits & de-	Near East, Polynesia, Americas, etc.
struction of humans: Melanesia, Andaman Isl.,	
Africa	
Escape by boat (worldwide)	
(2a) as retribution for killing of culture hero /	
rainbow snake: Mel., Aus.	
(2b) by mistake or spell of rainmaker / rain-	cf. rainbow after flood (Hebrew Bible)
bow snake, some humans eaten by snake:	
Aus. only	
(2c) as retribution for other mistakes: Melane-	human noise, etc.
sia, Australia	
(3) Flood from vessel, calabash, water / honey	by rain (Near East, etc,), overturning of heaven /
bag: Australia, Africa	earth (Polynesia)
(4) Flood caused by someone's wounds or sores:	from fluids of the body
Australia, Africa	

In sum, both the Laurasian and the Gondwana flood myths share the topic of retribution by a divine or superior human being. It often is caused by some sort of mistake of one or more early humans and executed by excessive rain. Some people escape by float or boat, usually to one or more high mountains. In some cases, a new race of humans evolves from the saved primordial persons. The motif of revenge for bodily harm, however, is limited to the Gondwana area, as are the motifs of the spell of a rainmaker or the killing of the Rainbow Snake.

Finally, it is instructive to compare the positioning of the flood myth in Laurasian and Gondwana myths / story line.

⁴⁰ Erich Kolig in: Dundes 1988: 241 sqq.

Table 10.2. Combined table of Laurasian and Gondwana Flood myths

Gondwana mythology	Laurasian mythology
_	Creation from nothing, chaos, etc.
earth, heaven, sea preexist	Father Heaven / Mother Earth created
High God in / toward heaven,	(Father) Heaven engenders:
sends down his son, totems, etc.	two generations ('Titans / Olympians'):
_	Four (five) generations / ages
_	heaven pushed up, sun released
_	current gods defeat / kill predecessors
_	killing the dragon / sacred drink
to create humans: from tree / clay	humans: somatic descendants of (sun) god
they show hubris	they (or a god) show hubris
are punished by a flood	are punished by a flood
Trickster deities bring culture	Trickster deities bring culture
_	humans spread, emergence of 'nobles'
local tribes	local history begins
_	final destruction of the world
_	new heaven and earth emerge

The position of the flood myth seems best located in Gondwana myths as a punishment of or revenge against early humans for their hubris or transgressions. In Laurasian myths, this is positioned after the creation of the world and the preparation of the world for (human) habitation. It functions as an interlude in the continuing creation of humans and of culture. In Gondwana myths, the original creation is missing, and humans are created by a High God or his son. Importantly, both myth families frequently share the motif of human hubris as the cause of the flood.

In sum, the flood motif is wide-spread and universal.⁴¹ In view of major similarities, we have to regard the Flood Myth as an early myth that is indeed pan-human and that belongs to the Pan-Gaean period, before the expansion of Homo Sapiens out of East Africa. It must have been taken over from the original tales of the 'African Eve.'

If so, both the Laurasian and the Gondwana (African, Australian etc.) flood myths go back to a time well before the last Ice Age. Consequently, naturalistic explanations must be excluded, such as a flood caused by the meltdown of the great ice shields, or the recently popular story of the fairly quick flooding of the Black Sea out of the Mediterranean. It also means that we can safely exclude diffusion from Near Eastern (Mesopotamian) origins, a theory that was popular earlier on. ⁴² There have

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⁴¹ For a fairly comprehensive listing see http://www.talkorigins.org/faqs/flood-myths.html.

⁴² Keller 1955, 1956. – Or the recent N.W. coast Amerindian theories of an Ice age refuge and consequent meltdown, not to speak of more esoteric explanations such as that of an astronomical myth, found with the Inca (W. Sullivan 1996). A similar kind of mythological explanation would provide for a big flood in the subterranean (= heavenly) ocean of night (*cf.* the myth of the sun's progress through the underground waters in Egypt, etc.); or a flood in the 'yearly' night, at the time of winter solstice, if the Milky Way would stop turning: it would remain 'flattened out' as ocean surrounding and flooding the world, see illustrations in Witzel 1984.

been innumerable other, often quite fanciful explanations of this myth, ranging from a diffusion of the Biblical or Mesopotamian motif⁴³ to such inventive psychological explanations such as that of the late A. Dundes connecting men's wish to give birth and the salty floods with a nightly vesical dream, an urge to urinate.⁴⁴

Instead, a pre-existing (Pan-Gaean) flood story has been intelligently inserted into the structure of Laurasian mythology. This took place at a node in the storyline where it does not disturb its flow. Instead, it dovetails well with the separate myth of a (3 or 4-fold) re-creation of the world and the re-emergence of humans as told in Meso-/South American and Eurasian mythology.

Employing this example, we can further extrapolate how Laurasian mythology developed out of earlier forms of Gondwana mythologies. It appears that Laurasian mythology is just *one* offshoot of an earlier form that was close to the various Gondwana mythologies. Comparing them and Laurasian mythology, we can try to establish their common ancestor that was prevalent long before the exodus from Africa, in other words, at the time of the 'African Eve.'

It now is obvious that that my original claim (2001) of a purely Laurasian origin of the flood myth was not correct, based as it was, on limited evidence only, ⁴⁵ and that we have to rethink the problem. Importantly for the Laurasian theory, this apparent 'setback' is not as crucial as it may look initially. Like any developing theory, the present one, too, will initially contain a few items that are unimportant, insufficient to sustain the theory, or that are just plainly wrong. As Ragin⁴⁶ has it

... most interesting findings usually result from ... hypothesis formation based on preliminary data analyses. In other words, most hypotheses and concepts are refined, often reformulated, after the data have been collected and analyzed.

Initial examinations of data usually expose the inadequacy of initial theoretical formulations, and a dialogue, of sorts, develops between the investigator's conceptual tools for understanding the data and the data analysis itself. The interplay between concept formulation and data analysis leads to progressively more refined concepts and hypotheses. Preliminary theoretical ideas may continue to serve as guides, but they are often refined or altered, sometimes fundamentally, in the course of the analysis.

The case of the flood myth belongs to the latter category, that of refinement of theoretical concepts, of reformulation 'after the data have been collected and analyzed.' Though it is present in many, if not most Laurasian mythologies as part of its original story line, it apparently did not originate with the ancient Laurasian shamans. It seems to be much older and it was artfully incorporated, as a 'popular' motif that

⁴³ See *Habilitationsschrift* by A. Etter 1989, and other Indologists such as Gonda, Magnone 1999, 2000, etc.

⁴⁴ Dundes 1988: 151-165.

⁴⁵ Stith Thompson: A 1010: Melanesian, Australian, African.

⁴⁶ Ragin 1987: 164-5; cf. p. 55.

could be used to explain many things that have gone wrong (see the Biblical or Yamana myths).

However, this re-adjustment of the theory also means that the Laurasian theory itself cannot be contradicted simply by the appearance of these African and Australian motifs. It merely has to be fine-tuned and amended.

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