第19卷 第1期 古脊椎动物与古人类 Vol. XIX, No. 1
1981 年 1 月 VERTEBRATA PALASIATICA Jan., 1981

Postschizotherium 下颌的新发现

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Postschizotherium 是我国新生代后期哺乳动物化石中引起过长期争论的一个属。关于这些争论，童永生和黄万波在“山西上新蹄兔一新种”一文中已有概括的介绍。这里想强调指出的一点是，虽然现在一般都倾向于把这个属归入蹄兔目，但化石的正面证据仍嫌不足。事实上，现有的化石并没有超过 1939 年德日进把这个属归入爪兽科时所掌握的材料。这些材料中头骨保存得太差，在目一级的分类上起不了多大的作用。P^4—M^3 倒是保存得较好，发现得也较多。但也正是在这几个上颊齿上，蹄兔和爪兽这两类动物是很相似的。下颌只保留了 P_3 以前的部分和一个单独的 M_1。这一部分，现在看来确实是和蹄兔类很相近，但由于保存得部位太少，蹄兔的特征没有充分地显示出来，特别是无法正确地判断它的齿式。而这一点对确定这个属应该归入蹄兔还是爪兽是很重要的。所以，虽然辛普生曾经提醒过德日进，他还是把它归入了爪兽科。40 年代以后，在欧洲也发现了一些零星的与 *Postschizotherium* 有些相似的化石，但材料更少。因此，尽管人们相信它应该是一种蹄兔，但又深感缺乏足够的正面证据。

1978 年作者在一次偶然的机会中发现了一件没有注明产地的标本。它的特殊的形态使人一下子就可以看出是属于蹄兔的。进一步的观察又证实了它正是属于 *Postschizotherium* 的。这件标本保存的部位和牙齿较以前的材料更多。这使我们有可能搞清它的齿式，而且把过去分别发现的单个的下臼齿和下颌前部连接了起来。更有意义的是这件标本上还保留有仅为蹄兔所特有的特征。这就使我们进一步肯定了 *Postschizotherium* 的蹄兔性质，并能对它在该目中的分类地位提出一些新的看法。因为这些缘故，虽然天津自然博物馆的黄为龙同志几经努力仍然没有弄清这件化石的产地，作者还是认为应该尽快予以报道。

本文在撰写过程中曾与 L. Ginsburg 博士交换过看法，他对本文提出了许多宝贵的意见，仅在此致谢。

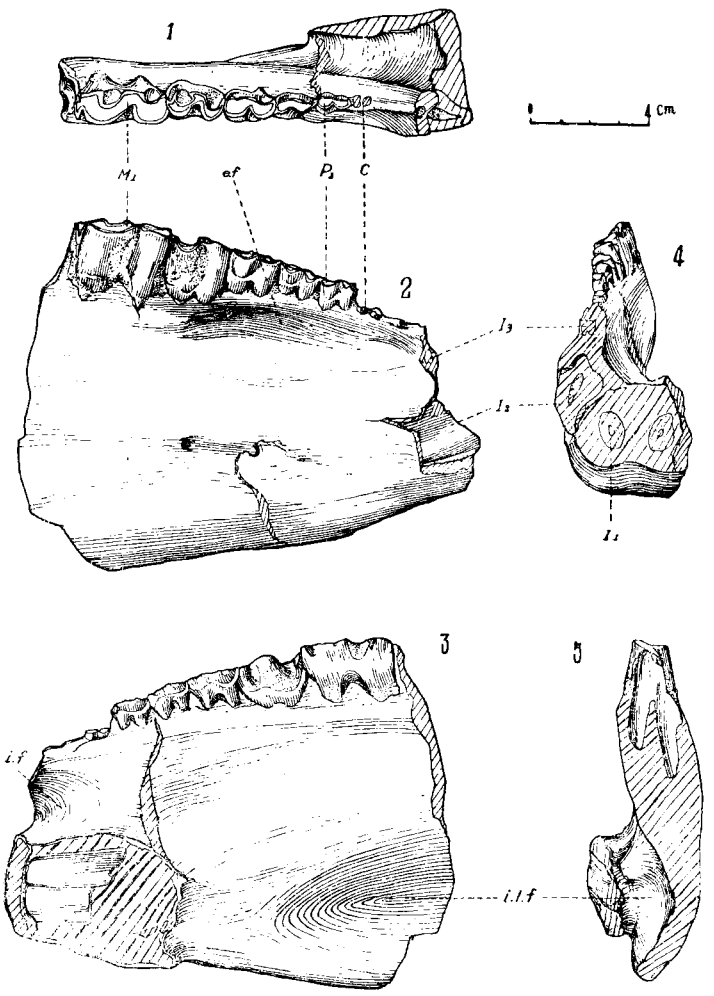
标 本 记 述

Postschizotherium cf. *chardini*

材料 右下颌 M_1 以前的部分。 TNP00208，现存天津自然博物馆。

地点及层位 不知。可能系从山西收购“龙骨”中拣出。时代可能为早更新世。

描述 化石保存在褐色含钙质的细砂岩中。化石本身呈淡黄色，齿质和珐琅质呈乳黄色。前端自 I_3 处断失。下颌联合的断裂不是沿中矢缝合线进行的，而是沿左 I_2 的内面进行的，所以左 I_2 的内侧面的印痕还保留着，左下颌含 I_1 根部的部分还保留着。这件标



Postschizotherium 下颌

1. 顶视； 2. 外侧视； 3. 内侧视； 4. 前视； 5. 后视。
e. f. 外窝； i. f. 内窝； i. l. f. 内下窝。

本的 P_4 磨蚀并不深，这表明下颌联合的愈合进行得早而牢固。

下颌联合长而厚，其后缘位于 P_1 和 P_2 之间，最厚处约厚 42mm。

下颌水平枝最突出的特点是高而薄，其下缘向后明显的下降(见图 2)。下颌的另一特点是有三个窝。德日进曾记述过两个窝，即他所谓的内窝 (i.f.) 和外窝 (e.f.)：内窝在下颌联合的顶面，这个窝是左右合成一个了。在我们的标本上还可以看到它向侧方扩展的情形，右水平枝的内壁在 I_3 和 I_2 处形成凹入；外窝在 I_3 至 P_4 的下方，为一长条状。除此之外，在我们的标本上还有一个很大而明显的内下窝 (i.l. f.)，这是以前的标本所没有保存下来的。它的边缘不很明显，前端大致始于 P_4 前缘的水平，后缘不知，因未保存，紧挨下缘，其上缘离齿槽缘约 45mm，中心最大深度约 15mm。这个窝并不影响下颌外壁，从外壁看不出这个窝的存在。但从后面看，下颌水平枝的下部由于这个窝而变薄，并使下

缘内转(图 2，3，5)。

颏孔小，至少有两个。前者位于 P_2 和 P_3 间，后者位于 P_3 和 P_4 之间。

牙齿中保存有一对 I_1，右 I_2、I_3 和 C 的部分齿根，P_1 和 P_2 齿冠稍有破损，P_3—M_1 保存完好。

关于齿式，从我们这件标本可以看出，过去德日进关于这一属只有两对门齿的推测是错误的。这是由于德日进把他所有的标本上连续排列的四个牙错误地当作了 P_1—P_4 因而把它们前边三个单独的牙当作了 C、I_2 和 I_3 了。我们的标本表明，在德日进的 "P_4" 之后的那个牙并不是 M_1，而是真正的 P_4！因为它是齿列中磨蚀最轻的一个。反之，如果它是 M_1 的话，那么，当它前面的牙是乳齿时，它后面的那个牙就应该磨蚀得最轻，而当它前面的牙是恒齿时，它自己就应该是磨蚀得最深的。实际上这两种情况都与我们的标本不符。如果它是 P_4，那么它前面那四个连续的牙的第一个牙齿就只能是犬齿了，而在犬齿之前的三个牙就正好是三个门齿了。德日进正好把每个牙齿都往后错了一个位置。

I_1 仅保留了齿槽内很短的一段根部，其冠部的情况不知。保留部分的断面近一椭圆形，其长轴为外上——内下方向。

I_2 是最大的一对门齿。其根部向后超过了下颌联合的后缘。珐琅质进入齿槽内，整个牙齿大概没有齿冠与齿根的分别。外侧面上珐琅质层薄，具沟纹，近下缘处有宽约 4mm 的无珐琅质区。断面近一不规则的菱形：上下径长，横径短。外上、内上和内下面都有中凹，内下面上中凹最明显。菱形的四个角中以下角最锐，上角次之，外角不明显，内角为圆弧状。I_2 与 I_1 的齿根间的齿隙约 6mm，但冠部也可能更接近些。

I_3 是齿列中最退化的一个。单根，它的前后都有较长的齿隙。齿根断面为前后都有中凹的圆四边形。

C 仅保留前小后大的两个齿根。前根为横椭圆形，后根为横葫芦形。与前臼齿紧接。

P_1—P_3 形态接近。自前向后逐渐增大，臼齿化程度愈高。低冠齿，但已有内低外高的现象，而且内壁陡直，外壁向上向内倾斜。内齿带发育完全，外齿带仅在后半部发育，在前缘则有一斜向前上方的齿带。白垩质至少在 P_2 和 P_3 上已稍稍发育。冠面斜向外下方，双月脊形，但以 P_3 表现最好。

P_4 和其它前臼齿有较明显的区别。齿冠显著变高，特别是外侧齿冠高而陡直，齿槽缘也突然下降，形成明显的单面高冠现象。白垩质很发育，外侧面中纵沟处很厚，内侧面齿带以上的部分也大部覆盖有白垩质。内侧面明显的上宽下窄。在这几点上它都和臼齿更为接近。但齿带的构造却与前臼齿者相同，而比臼齿者更发育。冠面构造有点介于前臼齿和臼齿之间。由于磨蚀较弱可以看出，下次脊的前端并不与下后尖连接，而是稍稍偏向外侧一点。第三叶发育弱，由内齿带上升形成。

M_1 齿冠的情况与 P_4 接近。但磨蚀更深，内侧面已至基部，前内凹已达到底部。因此它的齿冠应该比 P_4 的更高，单面高冠现象也更显著。白垩质很发育，内侧已把后凹填平。外齿带与前臼齿者相似，但无内齿带，内侧面特别平坦，甚至有些变凹，这是和前臼齿很不一样的。次小尖很发育，自下向上增大，成为第三叶。在我们的标本上，由于磨蚀较多，为一向外伸的尖突状。

M_2 未保存，但留有前齿根的印痕。这个齿根在齿槽缘之下很快就分为二根。如果后

齿根也是这样，那这个牙齿就是四根的牙齿了。这对下颊齿来说，是很特殊的，是有分类意义的(见后)。

比较和讨论 这件标本应该属于 *Postschizotherium* 是无疑的。*Postschizotherium* 这个属是根据泥河湾的上牙建立的。可以肯定是这个属的第一件下颌是德日进和桑志华于1936年所描述的榆社的A号标本[1]。它包括了属于同一个体的一段头骨和下颌的前部。这个头骨上的上牙，除了个体小些，和泥河湾标本是极为相似的，确实应该归入同属。这样这段下颌自然也应是属于这个属的了。新发现的这件标本则和标本A几乎完全一样，只是个体更大一些而已。

新标本的发现，由于它保存的部位更多，特征更明显，使我们对 *Postschizotherium* 的性质有了进一步的认识。

首先，这件标本表明，*Postschizotherium* 这个属至少在下颌和下牙的构造上，蹄兔的性质已经表现得十分清楚了。这些特征是：1. 下颌联合长而粗壮，愈合得早；2. 下颌上有内、外和内下三对窝，特别是内下窝大而明显，是任何其它哺乳动物所没有的；3. 下颌水平枝特别短而高，下缘向后急剧下降；4. 有两对特化的门齿：I_2 最大，獠牙状，I_1 次之，I_3 退化，三者之间有齿隙；5. 犬齿前臼齿化，双根，与前臼齿列密接，这也是其它哺乳动物所没有的；6. 前臼齿臼齿化；7. P_4 构造特殊：出齿晚，在冠面形态和齿带上接近前臼齿，但在高冠和白垩质覆盖上则接近臼齿；8. 下臼齿第三叶很发育；9. 部分颊齿，至少大概是 P_4—M_2 为四根齿，这在其它哺乳动物中是少见的，至少爪兽肯定不是这样，它们是双根齿。这些特征中，一些是仅为蹄兔目(而且只是其中部分成员)所特有(如2，4，5，7，9(?))，另一些虽然也可以在别的目中发现，但蹄兔也具有。总之，上述特征的综合使我们深信，*Postschizotherium* 只能是蹄兔，而不会是爪兽。

Postschizotherium 在蹄兔目中占有什么样的分类地位？新的标本在这方面也提出了一些新的证据。

有些人认为 *Postschizotherium* 就是欧洲广泛分布的 *Pliohyrax* 的一些种。最近 Vekua 在记述格鲁吉亚的蹄兔化石时又提到了这种可能性。新发现的标本则表明 *Postschizotherium* 不仅应该是一个独立的属，而且和 Pliohyraciinae 已知的几个属差别都很大。虽然如此，就下颌和下牙总的形态看，*Postschizotherium* 还是和 Pliohyraciinae 最为接近，而和其它各亚科相比，差别就更悬殊。

目前归入 Pliohyraciinae 的共有三个属：*Pliohyrax* Osborn, 1899, *Parapliohyrax* Lavocat, 1961 和 *Kvabebihyrax* Gabunia et Vekua, 1966.

Pliohyrax 和 *Kvabebihyrax* 在形态上很接近。前者是欧洲三趾马动物群中常见的动物，后者时代稍晚、形态上稍更特化些。它们和 *Postschizotherium* 的共同区别是：1. 没有明显的内下窝。*Pliohyrax* 连其它两个内、外窝也不怎么发育；2. 门齿形态差别较大。*Pliohyrax* 的前两对门齿的断面都是宽大于长，*Kvabebihyrax* 的 I_2 已是长(或高)大于宽，但 I_1 仍是宽大于长。而且断面的形状也不同；3. 它们的门齿之间的齿隙都很短，I_3 和C也很接近；4. 前臼齿比例上更短宽一些，不象我们的标本那样细长；5. 齿带发育不同：它

1)被孔尼华归入 *P. licenti* 的B号下颌很可能不应该归入本属。

表 1　下 颌 测 量 和 比 较 (mm)

	Postschizotherium			*Pliohyrax graecus* (after Melentis)	*Kvabebihyrax kachethicus* (after Vekua)
	TNP. 40080	specimen A(榆社)	Specimen C(榆社)		
下颌在 P_3 中处的高 (height at the mid. of P_3)	88	65	95	53	51
下颌在 M_1 中处的高 (height at the mid. of M_1)	~95			54	
I_3—C 齿隙 (diastema)	~16	8	9		
P_1—P_4 长 (lenghth)	64			54—58	49—51
I_1 高×宽 (h.×W.)	13 × 8 (root)	15×10	18×14	7.1—8×10.2—11.2	9—13×14
I_2 高×宽 (h.×W.)	26×15 (root)	18×12	19×18	8.9—10×16.4—17.4	14—15×11—14
I_3 长×宽 (L.×W.)	5×5.5 (root)	6×6	7.5×7.5	5.8—6.2×5.3—5.5	4.5—5×5
C 长×宽 (L.×W.)	8×6.5 (root)	8.5×6	8×6.5	10.5×11	8—9×7—7.5
P_1 长×宽 (L.×W.)	12.5×8.2	9×7 (worn)	9×7(worn)	11.5—12.1×8.4—9	9—10×8—8.5
P_2 长×宽 (L.×W.)	14.5×9.8	9×8 (worn)	11×8.5 (worn)	12.8—13.8×9.4—9.9	11.5—13×9.5—11
P_3 长×宽 (L.×W.)	17×11.5	13.5×9(worn)	17×11 (worn)	14.8—16.1×11.4—12.2	14.5—17×12
P_4 长×宽 (L.×W.) 高 h.	19.5×14.5 20	周口店第 12 地点 30×14 27		16.2—18.8×12.5—13 9.9—14.5	14—19×11—13
M_1 长×宽 (L.×W.) 高 h.	30.5×16 21			19.9—22×13.2—14.1 9.1—11.5	20—23×13—14

们的前臼齿的外齿带完全,而臼齿则没有;在我们的标本上前臼齿和臼齿的外齿带都仅在后半部发育; 6. 在单面高冠和白垩质的发育程度上, *Pliohyrax* 最弱, *Kvabebihyrax* 次之,我们的标本最强。

Parapliohyrax 是非洲中新世的一个属。这个属地质时代较早,个体也小得多,和我们的标本很容易区别。但令人奇怪的是它却在许多特性上和我们的标本相似。这些共同点是:

1. 下颌多窝。我们的标本是有内、外和内下三个窝。 *Parapliohyrax* 也有一个很大的内下窝,此外还有一个很大的外下窝。至少在一件标本上也有和我们标本上的外窝位置接近的一个窝:在我们的标本上外窝位于前臼齿列下方,而在 *Parapliohyrax* 中它却位于齿隙处。*Parapliohyrax* 也没有与我们标本上的内窝相应的窝。总之,虽然窝的位置不尽相同,但下颌多窝,而且都有大的内下窝则是蹄兔目其它各属少见的。

2. 下颊齿有仅在后半部发育的外齿带。

3. I_2 的断面有些近似。根据 Ginsburg 的描述,"I_2 有一平的内面和一个凸的外面,两面都有珐琅质,而且向后组成一尖角。在前外部还有一第三面,无珐琅质且为凹面"。这样的 I_2 的断面应和我们标本的菱形断面不同,但 Ginsburg 认为两者还是很接近。

总之,看来这两个属还是最接近的。

蹄兔目中下颌具有内下窝的还有两个属,也是非洲的: *Geniohyrax* 和 *Meroehyrax*。*Geniohyrax* 的内下窝很大,近方形,而且这个窝使下颌的外侧面明显地凸起来,这种情况和我们的标本差别很大。*Meroehyrax* 的内下窝则和我们的标本很接近。但这两个属在其它方面都和我们的标本相差很远,构造上显然原始得多。

综上所述,可以得出如下的结论: 在非洲早期的蹄兔中有一些是下颌有窝的。从其中的某一类产生了下颌多窝的 *Parapliohyrax*。*Postschizotherium* 很可能是从 *Parapliohyrax* 或与它相近的种类进化而来。*Pliohyrax* 和 *Kvabebihyrax* 或者是从 *Parapliohyrax* 或与它相近的种类通过下颌窝的退化而来,或者是从另一些下窝不发育窝的种类中进化而来。如果是后者,那么 *Parapliohyrax* 和 *Postschizotherium* 就不应该和 *Pliohyrax* 和 *Kvabebihyrax* 放在同一亚科内,而应重新考虑了。不过这还需要更多的材料来证实。

我们的标本在目一级的分类上是很有作用的,但是在种的鉴定上,我们却碰到了困难。榆社的标本A由于显然比泥河湾的小而被定名为 *P. intermedium*。我们的标本显然比标本A大。而根据上新蹄兔属中 M_1 和 M^2 长的比例(大约为 3:4)来推断一下,我们的标本,在大小上正和泥河湾的 *P. chardini* 相符(31:44)。但是过去已有两件材料,根据其大小也被归入到这个种中:一是周口店第 12 地点的一个下臼齿和其它一点破碎材料。这个牙齿倒确实和我们标本上的 M_1 一模一样,完全可以一起考虑。另一件是榆社的标本C。这件标本也只有 P_3 以前的部分。它在大小上和新发现的标本几乎一样大,但构造上却有些差异。1. 两者 I_2 断面形状不同:标本C的断面近一带中凹的圆三角形,而我们的标本为带中凹的菱形; 2. 标本C的颏孔大,单一。3. I_3 和C的齿隙也不同,标本C上显然更短。究竟哪一件标本应该归入 *P. chardini*? 或者它们都应该归入一种,其差别仅是性别的差异? 这个问题的解决还需要更多的材料。目前我们只是根据大小,把它归入了德氏种中。

(1980年2月28日收稿)

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NOTES ON A LOWER JAW OF *POSTSCHIZOTHERIUM*

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Summary

Postschizotherium is one of the most puzzling forms discovered from the late Cenozoic deposits in North China. Since its first discovery much speculation has been raised concerning its systematic position. Teilhard de Chardin, who described almost all the material collected in China at that time, had insisted all the time on referring it to the perissodactyl Family Chalicotheriidae. G. Simpson, and later most paleontologists who studied or once touched the problem, preferred to consider it an aberrant hyracoid. There were still others who compared it with various groups of Perissodactyla, such as paleotheres, titanotheres and anchitheres. The problem can not be considered as completely solved even now. One of the probable reasons for such a discrepancy may lie in the imcompleteness of the material available for studying. In fact, all the material accumplated during more than 40 years consists of only a poorly preserved middle part of the skull, which practically shows nothing except two tooth rows of P^4—M^3, three similarly brocken symphysial portions of lower jaws, as well as several isolated teeth. The best part of the material preserved, P^4—M^3, unfortunately, shows nearly equal resemblance both to hyracoids and chalicotheres. Thus it can hardly be relied on as an useful criterion in deciding which Order the animal ought to be included in. The general structure of the preserved part of the lower jaw is really much more similar to that of hyracoids, especially in the enlargement of the two tusk-like incisors. But the material is too fragmentary to give more definite clue to its true nature.

During the visit to Tianjin Natural History Museum, the author found by chance a lower jaw, which was in a drawer without any indication of provenance. A first glance was enough to determine that it was some kind of hyracoids. Owing to the rare occurrence

of the hyracoid fossils in China, the unexpected find attracted the author's attention at once. After a further investigation, it revealed that the specimen did represent a lower jaw of *Postschizotherium*. Since a larger portion of the lower jaw is preserved, its hyracoid nature is for the first time so clearly shown. This is the reason why it is worthy studying and publishing as soon as possible.

Postschizotherium cf. *chardini*

(text fig. 1—5)

MATERIAL: A right ramus of lower jaw lacking the parts posterior to M_1 and anterior to I_3, TNP.00208.

LOCALITY: Unknown, probably from a drugstore of Shansi.

DESCRIPTION: Symphysial area strong, deep and comparatively narrow, the two branches are completely fused at least at the middle age of the animal (P_4 slightly worn). The latter point can be justified by the fact that the left half of the lower jaw was brocken away along the inner side of the left I_2, instead of the sagittal symphysial surface. The symphysis extends backward as far as the posterior border of the P_1, with the largest thickness (42mm) near its posterior margin.

Horizontal ramus disproportionally deep and thin, with its lower border strongly descending posteriorly. Another peculiarity is the presence of three fossae. The internal and external ones (i.f, e.f.) were pointed out by Teilhard de Chardin in 1936 and 1939 already, but there is a third one, which is the most significant of the three. It seems more convenient to call it interno-lower fossa according to its position (i.l.f.).

There are two small mental foramena, one at the level between P_2 and P_3, while the posterior one-P_3 and P_4.

All the crown parts of I_1-C were brocken away. P_1-P_2 with their crown damaged, while P_3-M_1 preserved almost intact.

The dental formula proposed by both Chardin and Koenigswald for the lower jaw was $\overline{2}\overline{1}\overline{4}\overline{3}$, with the only difference concerning the interpretation of the incisors. Teilhard de Chardin considered them as I_2 and I_3, while Koenigswald adopted them as I_1 and I_2. The new specimen distinctly shows that neither interpretation is right. The fact is that the teeth supposed by these authors as P_{1-4} are, in fact, C and P_{1-3}. On our specimen it is clearly shown that the tooth next to the once-supposed P_4, may not be M_1, as could be expected, but the true P_4. Accordingly, the first two-rooted tooth in the tooth row, which was previously considered as P_1, must be a canine. It is interesting to note that the two-rooted and premolarized canine is nothing but a feature characteristic of many hyracoids. In conclusion, the dental formula of the lower jaw of *Postschizotherium* must be $\overline{3}\overline{1}\overline{4}\overline{3}$.

Cross section of I_1 is obliquely elliptical in shape, while that of I_2 is rhomboid in shape, with especially clear re-entrance on the lingual-lower side. I_3 is the smallest, one-rooted tooth. Diastemas exist between all the incisors and between I_3 and C, the last one being the longest. C closely set with the other cheek teeth. It has two roots and may be premolarized.

P_1-P_3 are quite similar in structure. External walls are oblique, while the internal ones-vertical. Internal cingula developed fully, while the external ones-only on the posterior halves. A thin coat of cement seems to be present. P_4 is distinctly separable

from its predecessors by its abruptly enlarged size, unilateral hypsodonty and thick coat of cement. M_1 unilaterally hypsodontic as P_4, but without inner cingulum. The inner surface of the crown is especially flat, even a little concave. Talonid well developed. M_2 not preserved, but left a folked anterior root print. It shows that if the postrior root is also folked, the tooth may have 4 roots, a character seldom seen in groups other than Hyracoidea.

DISCUSSION: The striking similarity between the new specimen and the Yushe specimens A and C described by Teilhard de Chardin leaves no room for doubt as to the correctness to refer all of them to the genus *Postschizotherium*. The essential hyracoid features of the genus evidenced by the newly found lower jaw are as follows: 1. Symphysis deep, long, stout and fused early; 2. There are three fossae on each branch of the lower jaw; 3. Horizontal ramus disportionally deep and thin; 4. I_1 and I_2, especially the latter, tusk-like, I_3 much reduced and diastemas exist between all the incisors; 5. C premolarized, with two roots and set closely with the premolars; 6. Premolars molarized; 7. P_4 apparently differs from the other premolars; 8. M_1 (maybe M_2 also) with well developed third lobe and 9. Intermediate cheek teeth (probably P_4—M_2) four-rooted.

Some of the above listed features are characteristic of the hyracoids only (2,4,5,7 and 9), while others are not exclusively confined to the Order Hyracoidea. However, it seems to us that the combination of all the listed characters positively and finally justified the hyracoid nature of the genus *Postschizotherium*.

Among all the hyracoid forms Pliohyraciinae is evidently the most similar to *Postschizotherium*. But there are still enough distinctive characters between them. Now Pliohyraciinae comprises 3 genera: *Pliohyrax*, a well-known European genus of hipparion fauna, *Parapliohyrax*, an African genus of Miocene age, and *Kvabebihyrax*, a genus recently established by Gabunia and Vekua.

It is easy to separate *Pliohyrax* from *Postschizotherium* by the following points: 1. *Pliohyrax* lacks the interno-lower fossa on the lower jaw; 2. Its horizontal ramus is never as deep as that of the latter genus; 3. Its I_1 and I_2 are much smaller, with transversely broadened cross-sections; 4. Diastemas between incisors are shorter; 5. Premolars proportionally broader; 6. Hypsodonty and coat of the cement much less developed; 7. External cingula on the lower premolars are fully developed, while that on the lower molars are absent. *Postschizotherium* has the external cingula developed on the posterior halves on both premolars and molars.

Kvabebihyrax shows even more similarities with *Postschizotherium* than *Pliohyrax*. But it is still not so specialized as the Chinese form either. In particular, there is no trace of the inner-lower fossa at all.

Parapliohyrax may easily be separated from *Postschizotherium* by its small size and primitiveness in general. But there are some striking similarities between them in some peculiar points:

1. For both genera, there are 3 pairs of fossae on the lower jaws. Although the fossae are not fully identical in shape and position, the presence of several pairs of fossae on the lower jaws is still a rare phenomenon among Hyracoidea.

2. The lower cheek teeth of both genera have the external cingula developed on the posterior halves only.

3. The cross-sections of I_2 of both forms may be quite similar in shape. According to Dr. Ginsburg (1977), "Elle présente une face interne plate et une face externe bombée, émaillées toutes les deux . . . . . A l'avant, en position antéro-externe, existe une troisième face, non émaillée et concave." Judging from the above description, the I_2 of *Parapliohyrax* seems rather different from that of our specimen, But Dr. Ginsburg assurred me in a letter that the cross-section of I_2 can be listed as one of the common features of the two genera.

Anyway, it seems to me that *Parapliohyrax* and *Postschizotherium* are surely the most closely related forms among all known members of Hyracoidea. The latter may well be derived from the former, or closely related forms.

While the specimen played an important role in solving the problem as to which Order the genus *Postschizotherium* should be placed in, the species identification is extremely difficult owing to the poor state of knowledge concerning the three species of the genus. Without enterring into details of the problem here in English summary, we placed the specimen temporarily into *Postschizotherium* cf. *chardini*, according chiefly to its size.